Lebanon Viewpoint

# The ghost of hyperinflation past

06 July 2020

GEM Economics
EEMEA | Lebanon

Transforming World

Thematic Research

**Jean-Michel Saliba**
MENA Economist/Strategist
MLI (UK)
+44 20 7995 8568
jean-michel.saliba@bofa.com

**Andrew MacFarlane, CFA**
EEMEA FI Strategist
MLI (UK)
+44 20 7995 5195
andrew.macfarlane@bofa.com

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

**Jure Jeric >>**
EEMEA Cross Asset Strategist
MLI (UK)
+44 20 7996 2736
jure.jeric@bofa.com

**EEMEA FI Strategy & Economics**
MLI (UK)

**GEMs FI Strategy & Economics**
BofAS

See Team Page for List of Analysts

## At a precarious juncture

The sharp depreciation of USD/LL in the black market since April suggests that the status quo, whether by policy design, inaction or paralysis, raises the risk of a costly inflation spiral. We see similarities to the 1985-1992 hyperinflation cycle. The suspension of IMF talks may reflect political economy considerations and a politically expedient outcome of distributing losses. This could lead to socially inequitable outcomes, and could endanger socio-political stability, in our view.

## A day late and a dollar short

The slide in the USD/LL market rate reflects, in our view: a) fiscal slippage; b) weaker USD supply partly due to capital outflows (but expatriate seasonal visits may help); c) the lack of external support; d) unanchored money demand and price-setting expectations; and, e) importantly, rapid increase in monetary aggregates (driven by currency in circulation), reflecting the withdrawals of deposits from the banking system ('bank run'). This could point to further material downside in USD/LL at unchanged policies in our view.

With the sharp USD/LL move, we think demand for real money balances is likely to decline with expected inflation, pushing money velocity higher and self-reinforcing the negative Fx-price spiral. We believe this could deflate domestic debt (but push external debt higher), and reduce financial sector Fx-denominated liabilities through *de-facto* lirafication. The large USD/LL slide could likely bring back the current account into balance, according to our compass methodology. However, this is likely to come at the cost of a depressed economic activity. Lebanon's GDP per capita could drop to levels consistent with a low middle-income country status. At this level of nominal GDP, capacity to shoulder and service Fx debt is likely to remain low for a prolonged period of time.

## Elements of a successful disinflation program

The literature emphasizes the need for an urgent, credible and decisive upfront change in policy regime, ideally embedded in legal and institutional reforms, to re-anchor domestic expectations. Tight monetary and fiscal policies and exchange rate unification would be key. Most hyperinflation countries solicited international financial support.

## EXD strategy: Fx hurdle; eurobonds to remain in teens

The weakness in USD/LL is likely to further hurt recovery value, and increases the risk that creditor negotiations are unable to reach an agreement. If authorities aim to maintain their c100% of GDP debt target, face-value principal and coupon cuts will likely need to increase. This could push recovery down towards 10pt. Our peer analysis of highly distressed credits shows bonds could trade in low-teens. Reforms could reverse this trend, pushing recovery value to the 20s, depending on where USD/LL settles.

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in FX markets and the financial resources to absorb any losses arising from applying these ideas or strategies.
>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.
Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.
**BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.**
**Refer to important disclosures on page 23 to 26. Analyst Certification on page 21. Valuation & Risk on page 21.**
12159799
Timestamp: 06 July 2020 04:27AM EDT
This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

# Contents

Macro - a day late and a dollar short 3
Dissecting the rapid slide in USD/LL black market rate 3
Fair value analysis for USD/LL 7
Lessons from high- and hyper-inflation peers 12
EXD strategy - Fx hurdle; eurobonds to remain in teens 16
Fx weakness filtering into bond prices and recoveries 16
Lessons from distressed peers 18
Appendix - bibliography 20
Research Analysts 27


This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

# Macro - a day late and a dollar short

**Jean-Michel Saliba**
MLI (UK)
jean-michel.saliba@bofa.com

## Dissecting the rapid slide in USD/LL black market rate

The slide in the USD/LL market rate reflects, in our view: a) fiscal slippage (which likely increased during the COVID-19 pandemic outbreak in 2Q20); b) weaker USD supply due to a BoP deficit driven by a (narrowing) current account deficit and persistent capital outflows (in the absence of a capital controls law); c) the lack of external inflows (in the context of lengthy and now halted IMF negotiations); d) unanchored money demand and price-setting expectations (the latter likely moving away from "cost + margin", as reflected in accelerating inflation dynamics); and, e) rapid increase in monetary aggregates (driven by currency in circulation), reflecting the continuous withdrawals of deposits from the banking system (effectively, a bank run).

### Multi-tier Fx system in place

The various Circulars of the Banque du Liban (BdL) effectively instituted a multi-tiers Fx system. The official USD/LL peg rate of 1,507.5 applies to imports of essential goods (fuel, wheat, medicine). Deposit withdrawals from the banking sector are conducted at a USD/LL rate of 3,850 (only fresh inflows can be withdrawn in USD from the banking sector). Remittances from specialized bureaus (OMT) are converted at a USD/LL rate of 3,800 when provided to customers, and the USD generated is required to be sold to the BdL. The rate at official money changers is USD/LL 3,850-3,900, and is currently set administratively by the BdL (within an exchange platform, 'Sayrafa', from July onwards). Last, the black market rate has weakened and currently hovers just under 10,000.

BdL Basic Circular 151 of 21 April set the stage for the multi-tier exchange rate system and *de facto* lirafication of deposit withdrawals. It allowed Fx deposits to be withdrawn in LL for six months at a defined USD/LL exchange rate (set in reference to the market rate and at 3,000 initially, and then hiked to 3,850 in late June) and within certain limits (up to US$5,000 equivalent) set by banks. Domestic banks are obligated to reduce their Fx assets at the BdL by the equivalent amount. The rapid increase in the black market rate from that point onwards likely signals that private sector expectations anticipated the ensuing prospective increase in money supply.

### IMF program expectations pared back

The apparent reluctance of the political class to agree to and implement deep reforms is likely to put in doubt their ability to conclude negotiations on a sizeable IMF program, in our view. (Talks have now been suspended). We think this outcome could be consistent with political economy considerations[1] and a politically expedient outcome of distributing losses. The costs of such a policy or of continued inaction are likely to be large, socially inequitable, and could endanger socio-political stability, in our view.

### Political class enters arena

The parliamentary budget commission is in the process of completing a reconciliation of financial sector losses between the government reform program and the Association of Banks (ABL) plan. Press reports suggest that recognized financial sector losses could be reduced under this review to a level and pace consistent with preserving the banking sector and BdL capital. The commission's leverage stems from the fact that parliamentary support will likely be required to pass reform laws under an IMF program.

[1] An estimated 43% of bank capital appears to be controlled by the political class. See Chaaban J. "I've Got the Power: Mapping Connections between Lebanon's Banking Sector and the Ruling Class", Economic Research Forum Working Paper 1059 (revised October 2016).

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

Press reports on 19 June on the preliminary parliament plan suggest that there would be no face-value cuts to domestic debt. The plan includes USD/LL at 3,500, nominal GDP at not below US$33bn and US$31bn in total government debt post-restructuring. This likely implies an 85% face-value reduction on Eurobonds. An earlier draft in May includes iface-value cuts of 60% and 30% for eurobonds and domestic debt respectively.

Local reports are that state asset sales and potentially gold sales could form part of the parliament plan. BdL owns 9.2mn fine troy ounces (US$16.3bn at end-June), but their use would require parliamentary approval. The ABL plan suggested state assets could total US$40bn. We think this is likely optimistic; there is also uncertainty on assets considered. We estimate assets of the telecom sector, Port of Beirut and premium real estate could total US$5-7bn. While the telecom sector has a precedent of privatization attempts, other assets may only attract domestic interest and not generate Fx inflows. We see room for policy-making debate around the judicious use of state assets, the governance and structure of such operations, as well as related equity considerations.

### IMF has attempted to arbiter

The IMF spokesperson suggested in early June however that IMF staff “estimates of financial sector losses are broadly consistent with those in the government’s plan”. The IMF expected negotiations “to be rather lengthy due to the complexity of the issues” and underlined that reforms will require “strong government ownership of its economic program, and support across the political spectrum and civil society”. The IMF Managing Director suggested in late June that there was no near-term breakthrough in talks. While we believe that there is scope for gradualism and to negotiate IMF conditionality, a sound starting diagnostic, as well as comprehensive and equitable reform, is necessary.

### Resignations throw doubt on willingness to reform

A key advisor to the Minister of Finance resigned in mid-June in protest against the lack of “genuine will to implement either reforms or a restructuring of the banking sector, including the central bank”, suggesting further that “the establishment (...) opted to dismiss the magnitude of (...) losses (...) and embarked on a populist agenda”. The Director General of the Minister of Finance presented his resignation in late June in protest against the gridlock, and suggested a strong qualitative jump in the negotiations with the IMF was needed to allow a chance for this process to continue and complete.

### Recent political decisions further weaken reform momentum

In recent weeks, the Cabinet approved a number of divisive measures. After an initial decision to build two permanent power plants as part of the Electricite du Liban (EdL) reform plan, the Cabinet endorsed a plan to build a third one, upon a review recommendation from members of the political class. The third power plant (Salaata) would involve additional expropriation charges. The World Bank’s 2020 “Lebanon Power Sector Emergency Action Plan White Paper” recommends to authorities “completing and publicly disclosing a preliminary assessment of the environmental and social impacts (...) of the proposed plant at Salaata that (...) analyzes costs and impacts (...)”. Given the large commercial financing needs of the EdL reform plan, donor funding and an appropriate governance framework would likely be required for further progress.

Parliament adopted in late May a law that allows lifting of the banking secrecy for Politically Exposed Persons (PEPs). However, a last minute amendment weakened its applicability, as it does not grant the judicial system the ability to request lifting of banking secrecy within the court process, according to experts quoted in the local press.

Recent administrative appointments in the civil service have followed sectarian logic and quotas, according to press reports. Appointments in the judicial system have still not been finalized. Against the backdrop of a lack of legal framework on capital controls, a lawsuit was filed by a Lebanese-American couple in New York against three Lebanese banks and the BdL for refusing to transfer their deposits abroad. Forensic audit of BdL and state entities is being opposed by political forces, according to local press.



This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

### Caesar Act sanctions could drive a wedge in domestic politics

The effect on Lebanon of further US Caesar Act sanctions on Syria requires monitoring. The US administration announced in mid-June sanctions against Syrian individuals and entities under the Caesar Syria Civilian Protection Act and Executive Order 13894. US officials said that future iterations of sanctions are likely to target non-Syrian entities (including Lebanese ones), and that Hezbollah is preventing reforms in Lebanon.

Members of the March 8 pro-Iranian alliance have called to resist the implementation of such sanctions and to turn towards the East, while their rhetoric against the US administration appears to have hardened. The close political ties of some members of the political class with the Syrian regime, the participation of Hezbollah in the military conflict in Syria, and the smuggling of goods across the Lebanese-Syrian border could leave uncertainty on the possible future targeting of Lebanese entities under the Caesar Act. We note that a number of Lebanese banks have subsidiaries in Syria, although we understand that they could be managed independently.

The Caesar Syria Civilian Protection Act passed into law as part of the National Defense Authorization Act (NDAA) in December 2019. According to the US State Department, "mandatory sanctions under the Caesar Act target foreign persons who facilitate the Syrian regime's acquisition of goods, services, or technologies that support the regime's military activities as well as its aviation and oil and gas production industries. The Caesar Act also mandates sanctions on those (…) engaging in reconstruction activities". Furthermore, "Executive Order 13894 includes menu-based sanctions including travel restrictions to the US and isolation from the US financial system (…)".

### Fiscal deficit slippage in 4m20 likely to deteriorate further

4m20 data suggests the fiscal deficit has widened by less than feared so far, but we would expect deterioration from 2Q20 onwards due to the Covid-19 pandemic.

The fiscal and primary deficit stood at LL2.6trn (US$1.8bn at the official Fx rate) and LL0.9trn (US$0.8bn at the official Fx rate) over 4m20. The fiscal and primary deficit are annualizing at LL7.9trn (US$5.3bn at the official Fx rate; 6.9% of GDP at the effective weighted exchange rate of USD/LL of c4,000 over 4m20) and LL2.7trn (US$1.8bn at the official Fx rate; 2.3% of GDP at an effective weighted exchange rate of USD/LL of c4,000 over 4m20).

The annualized fiscal and primary deficits are wider than the 2020 budgeted targets for the fiscal and primary deficits of LL7.0trn (US$4.6bn at the official Fx rate) and LL2.3trn (US$1.5bn at the official Fx rate) respectively. The annualized fiscal and primary deficits provide a mixed picture versus the 2020 targets under the government reform plan for the fiscal and primary deficits of LL5.7trn (US$3.8bn at the official Fx rate) and LL3.1trn (US$2.0bn at the official Fx rate) respectively.

Fiscal revenues dropped 9.1%yoy over 4m20, while fiscal expenditures stayed flat yoy thanks to a 23%yoy drop in Electricite du Liban (EdL) transfers and an 18%yoy drop in interest expenses. While the 2020 budget indicates that the BdL would waive its interest receipts on domestic debt, we understand that this has not yet taken place, most likely due to the lack of decisions in regards to domestic debt restructuring.

### Overhaul of subsidy system being studied

A proposal to remove subsidies on gasoline, diesel and wheat from 1 August and replace them by targeted transfers is being studied by authorities. Authorities have suggested this could limit smuggling to Syria and the drain on BdL Fx reserves. It is unclear how direct transfers could be structured efficiently in the near-term, short of near-universal transfers. We estimate net fuel imports stood at US$6.5bn (12.5% of GDP) in 2019.

### Extent of deficit monetization unclear

The deficit financing sources and the extent of fiscal monetization are unclear. Domestic debt increased by LL0.7trn (US$0.4bn at the official Fx rate) over 1Q20, and public

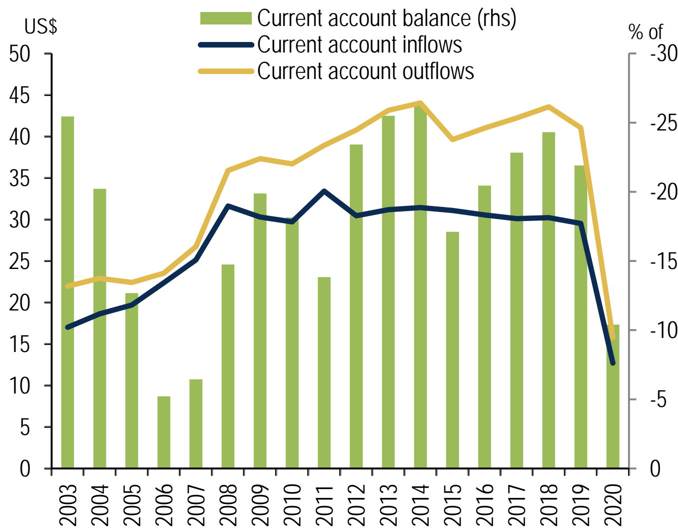
This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.
CB

sector deposits at the BdL dropped by LL1.5trn (US$1.0bn at the official Fx rate) over 1Q20. While the above two financing items match the fiscal deficit recorded over the period, it appears that the BdL is stepping in for the lack of banking sector rollover or purchases of domestic debt. Indeed, the increase in BdL holdings of T-bills and T-bonds roughly matches the drop in banking sector holdings of T-bills and T-bonds. We believe the public sector deposits at the BdL could be reported on a net basis. If so, their drop could instead reflect higher BdL claims on the government through outright monetization that may not be captured under the domestic debt stock stated above.

### Current account imbalance to narrow materially

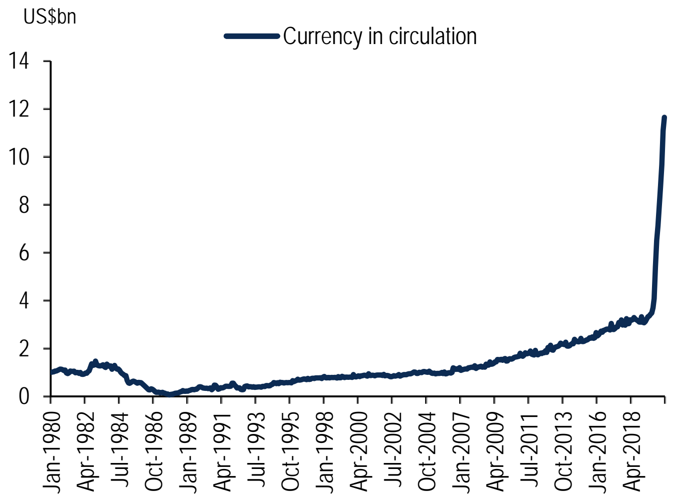
We think the slide in USD/LL and weakening economic activity is likely to narrow the current account deficit in 2020 to US$3.1bn (10.4% of GDP), from US$11.5bn (21.9% of GDP) in 2019, assuming an average weighted rate of USD/LL 4,000. Volatility of the USD/LL effective exchange rate and depth of the economic recession this year makes the forecast uncertain. The slide in USD/LL in the black market rate, if sustained, is likely to narrow the current account much further. Indeed, our analysis of fair-value suggests that the current account could already be in balance through major import compression.

**Chart 1: Current account is set to contract sharply this year**




Source: Haver, BofA Global Research.

**Chart 2: Currency in circulation increasing materially**




Source: Haver, BofA Global Research.

### Cross-checking current account estimates

The average monthly drag (US$0.3bn) implied by the projected current account deficit appears consistent with the average monthly drain in BdL Fx reserves of US$0.6bn year-to-date. This takes into account our estimate of US$1.3bn in financial account outflows over January-April, derived from the banking sector balance sheet. This would suggest that the drop in Fx reserves over the January-April period was caused by the drain in the current account and capital account outflows in equal amounts. Trade data suggests that the current account deficit could narrow further over 2H20 given the slide in the black market rate for USD/LL and the impact of the covid-19 pandemic on activity. Over January-April, exports were flat yoy while imports dropped by c40%yoy.

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

**Table 1: Current account is set to narrow materially**

| US$bn | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Current account balance** | **-5.0** | **-4.3** | **-2.7** | **-1.1** | **-1.6** | **-4.3** | **-7.0** | **-7.0** | **-5.5** | **-10.3** | **-12.0** | **-12.6** | **-8.5** | **-10.5** | **-12.1** | **-13.4** | **-11.5** | **-3.1** |
| % of GDP | -25.4 | -20.2 | -12.7 | -5.2 | -6.4 | -14.7 | -19.9 | -18.1 | -13.8 | -23.4 | -25.5 | -26.2 | -17.1 | -20.5 | -22.8 | -24.3 | -21.9 | -10.4 |
| **Balance of goods** | **-4.9** | **-6.6** | **-6.5** | **-6.1** | **-7.9** | **-11.1** | **-11.2** | **-12.5** | **-14.0** | **-15.4** | **-16.1** | **-15.9** | **-13.6** | **-14.0** | **-14.4** | **-15.1** | **-13.4** | **-5.4** |
| Goods exports | 2.1 | 2.5 | 2.7 | 3.2 | 4.0 | 5.3 | 4.7 | 4.7 | 5.4 | 5.6 | 5.2 | 4.6 | 4.0 | 3.9 | 4.0 | 3.8 | 4.8 | 2.4 |
| Goods imports | 7.0 | 9.2 | 9.2 | 9.3 | 11.9 | 16.4 | 15.9 | 17.2 | 19.5 | 21.0 | 21.2 | 20.5 | 17.6 | 17.9 | 18.4 | 18.9 | 18.2 | 7.8 |
| Mineral imports | - | - | 2.2 | 2.4 | 2.7 | 4.3 | 3.3 | 3.8 | 4.7 | 6.8 | 5.9 | 5.8 | 4.0 | 4.2 | 4.3 | 4.2 | 6.6 | 3.5 |
| Non-mineral imports | - | - | 7.0 | 6.9 | 9.2 | 12.1 | 12.6 | 13.4 | 14.7 | 14.2 | 15.3 | 14.6 | 13.6 | 13.8 | 14.1 | 14.7 | 11.6 | 4.3 |
| **Services balance** | **3.0** | **1.4** | **2.9** | **2.8** | **2.8** | **4.1** | **2.5** | **3.6** | **6.4** | **3.5** | **2.7** | **1.5** | **2.2** | **1.9** | **1.3** | **1.4** | **0.2** | **0.0** |
| **Income balance** | **-3.3** | **-0.8** | **-0.2** | **0.2** | **0.7** | **0.4** | **-0.2** | **-0.5** | **-0.2** | **-0.2** | **-0.2** | **-0.6** | **-0.5** | **-0.8** | **-0.2** | **-1.1** | **-1.3** | **1.1** |
| Compensation of employees | 0.4 | -0.3 | -0.1 | -0.1 | 0.1 | 0.6 | 0.1 | 0.0 | 0.0 | -0.1 | 0.3 | 0.1 | 0.2 | 0.0 | -0.1 | -0.3 | -0.1 | -0.1 |
| Investment income | -3.7 | -0.6 | -0.1 | 0.2 | 0.6 | -0.2 | -0.4 | -0.5 | -0.3 | -0.1 | -0.5 | -0.7 | -0.7 | -0.8 | -0.1 | -0.8 | -1.2 | 1.2 |
| Direct investment | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | -0.1 | 0.1 | 0.2 | 0.6 | 0.0 | -0.1 | 0.3 |
| Portfolio investment | -3.6 | -0.4 | -0.4 | -0.4 | -0.4 | -0.4 | -0.3 | -0.3 | -0.3 | -0.1 | -0.3 | -0.1 | 0.0 | -0.4 | -0.3 | -0.6 | -0.6 | 0.1 |
| Credit | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.4 | 0.4 | 0.2 | 0.4 | 0.2 | 0.1 | 0.1 |
| Debit | 3.8 | 0.6 | 0.4 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 | 0.5 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.1 |
| Other investment | -0.2 | -0.1 | 0.2 | 0.6 | 1.0 | 0.2 | -0.1 | -0.2 | -0.2 | -0.2 | -0.3 | -0.5 | -0.8 | -0.7 | -0.4 | -0.2 | -0.4 | 0.8 |
| Credit | 0.3 | 0.5 | 0.9 | 1.7 | 2.2 | 1.1 | 0.7 | 0.7 | 0.6 | 0.6 | 0.5 | 0.9 | 0.6 | 0.8 | 1.1 | 1.8 | 1.7 | 0.9 |
| Debit | 0.5 | 0.6 | 0.6 | 1.0 | 1.2 | 1.0 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 1.3 | 1.4 | 1.5 | 1.5 | 2.0 | 2.1 | 0.1 |
| **Transfers balance** | **0.3** | **1.7** | **1.1** | **2.0** | **2.8** | **2.4** | **1.8** | **2.4** | **2.3** | **1.8** | **1.6** | **2.4** | **3.4** | **2.5** | **1.2** | **1.4** | **2.9** | **1.3** |
| of which, net remittances | 0.3 | 1.6 | 1.0 | 1.8 | 2.7 | 2.2 | 1.7 | 2.5 | 2.5 | 2.1 | 2.3 | 2.8 | 3.6 | 3.4 | 2.7 | 2.3 | 3.2 | 1.6 |

Source: Haver, BofA Global Research. Nominal GDP for 2020F of US$28bn assumes 15% real GDP contraction, an effective average weighted rate of USD/LL 4,000, 70% inflation. The effective average weighted rate of USD/LL assumes an 80% weight to the black market rate, 12% to the rate in the banking sector (3,000), 6% to the rate in the official money changers (3,840), and 2% to the official USD peg. Import elasticities to GDP of 2.4 and to REER of 0.24, export elasticity to REER of 0.27 provide reference to credit and debit line items. Volume of fuel imports is assumed to drop by 15% with oil prices of US$40/bbl. The bulk (c70%) of the debit component of other investment income consists of interest paid on non-resident deposits. Note that the current account balance for 2020F is adjusted for the default on payment of interest on eurobonds and for the capital controls preventing interest payments to non-resident depositors, totalling cUS$2.5bn. Interest is recorded in the BoP on an accrual basis. In accounting terms, this would mean recording this interest as part of the current account balance and as an arrears in the financial account. For simplicity, we do not include interest arrears in the current account balance for 2020F as its level would be artificially swollen for analysis purposes.

## Fair value analysis for USD/LL

Common Consultative Group on Exchange Rate Issues (CGER) Fx fair-value methodologies indicate a trade-weighted overvaluation of 55-90%, suggesting a fair-value range for USD/LL 2,600-3,300, based on 2019 data. The upper end of the range appears consistent with IMF article IV estimates and the government reform plan.

The main driver to the slide of the USD/LL in the black market appears to be the growth in monetary aggregates, as well as unanchored domestic expectations. The full conversion of the existing stock of currency in circulation would require a trade-weighted Fx weakening of 429% (USD/LL at 10,234), assuming money velocity at its 2019 level of 4.6. Assuming currency in circulation continues to grow at current trends, the equivalent end-year required trade-weighted Fx weakening could be 592% (USD/LL at 13,551), assuming money velocity at its 2019 level of 4.6.

With current currency in circulation growth, the equivalent end-year required trade-weighted Fx weakening could be 2,223% (USD/LL at 46,751), if money velocity increases to the 1987 peak level (18.6) seen during Lebanon's episode of hyperinflation.

We treat the results with caution due to data and methodological limitations, and judgment must be exercised in their use.

### Compass model provides USD/LL long-term fair-value estimates

Iterations 1-3 are based on our Compass methodology. This proprietary model provides estimates of long-term equilibrium exchange rates for emerging market currencies, both trade-weighted and bilateral (versus the USD and EUR). These equilibrium exchange rates are consistent with the convergence of external current accounts to levels that are in line with country fundamentals.

The compass methodology caps the long-term current account norm at -3% of GDP. The range of current account Fx elasticities we use is 0.10-0.18. We think the lower end of the range is likely more appropriate, as it appears to reflect more closely the observed elasticity implied by the current account narrowing over 4Q19 during the start of the slide of the USD/LL in the parallel market.

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

**Table 2: Estimated current account Fx elasticity over 4Q19**

| | 3Q19 | 4Q19 |
|---|---|---|
| Current account balance (U$mn) | -2,972 | -2,547 |
| % of Q GDP | -22.6 | -19.3 |
| GDP (US$bn, 2019) | 52.7 | 52.7 |
| USD/LL (effective) | 1,500 | 2,000 |
| REER (%, '+' appreciation) | | -33.3 |
| Estimated elasticity | | 0.10 |

Source: Haver, BofA Global Research.

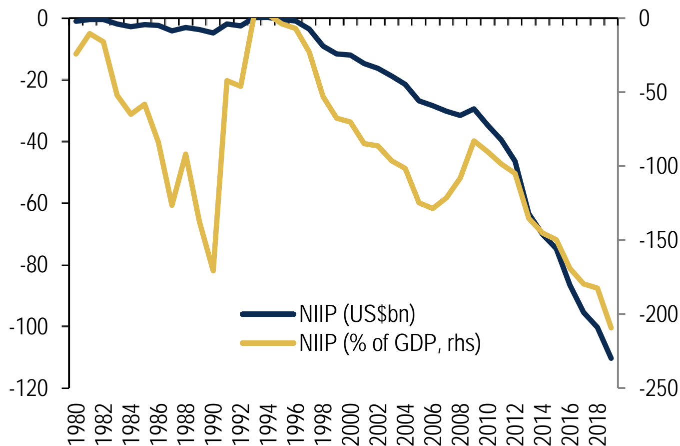
Given the lack of financial account inflows due to capital controls, we ran two additional stress tests (iteration 1a and 2a, depending on the elasticity). The stress-tests force the long-term current account norm to 0, to reflect a lack of funding.

A shortcoming of the compass methodology when applied to Lebanon is that it proposes a current account deficit to be the long-term current account norm. In Lebanon's case, we do not think it is realistic given the very large and increasing over time negative Net International Investment Position (NIIP). This essentially implies that Lebanon could continue to borrow to finance its external imbalance going forward and grow further without bound its already high stock of external liabilities. We estimate NIIP stood at US$110bn (209% of GDP) in 2019, with 70% being accounted for by the government external debt and non-resident deposits in the banking sector. This suggests that a current account surplus could be a more appropriate long-term norm, in our view.

As a result, we run another specification (iteration 3) that imposes an arbitrary long-term current account norm surplus of 3% of GDP. This would push the REER misalignment up by 10ppt versus the iteration with a negative (-3% of GDP) current account norm.

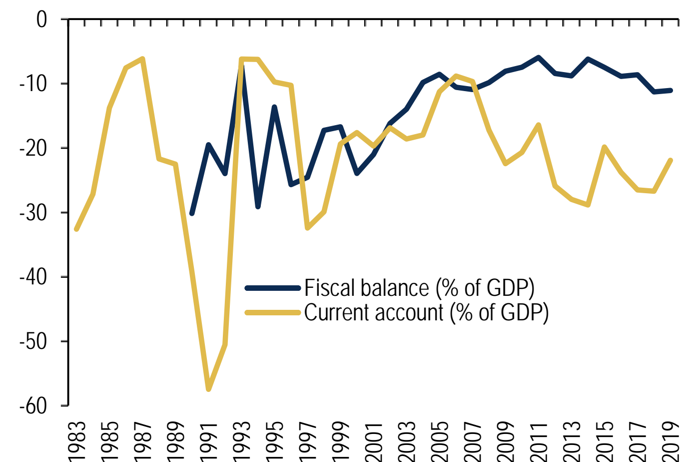
Given the large negative NIIP position, a simple external sustainability (EB) approach is instructive for Lebanon. As a debtor economy with a large external debt stock, high risk premium and lower rate of return on its external assets versus its external liabilities (as reflected by a negative net investment income position), Lebanon would need to run large trade surpluses to narrow its external position and deleverage. The EB approach suggests an overvaluation of 57% based on 2019 data to keep the Net Foreign Assets (NFA) position stable. The chosen NFA benchmark is relatively arbitrary in EB. A less negative NFA target (deleveraging) would imply a higher REER overvaluation.

**Chart 3: Net International Investment Position (NIIP) deeply negative**




Source: Milessi Ferreti, Haver, BofA Global Research.2016-2019 NIIP are estimates based on BoP data and exclude valuation adjustments.

**Chart 4: Lebanon maintained large twin deficits for decades**




Source: Haver, BofA Global Research.

## Rapid growth of monetary aggregates driving USD/LL

The rapid increase in currency in circulation may explain the slide in USD/LL in the context of a current account deficit, the absence of an IMF program and the lack of inflows due to capital controls. The increase in currency in circulation likely follows from

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

the withdrawals of deposits in LL in the banking sector. Conversion to USD then takes place at the black market rate. It is likely a sign of poor confidence that deposit withdrawals occur despite a higher haircut on Fx deposits (given the spread between the black market and the bank rate) than if kept in banks and facing the reform plan bail-in,

We estimate currency in circulation increased by an average of UD$0.9bn per month between October 2019 and June 2020 to stand at US$11.6bn in June 2020, from US$3.7bn prior to October protests. Resident LL-deposits dropped by US$13.9bn over October 2019-April 2020 to US$28.0bn, an average monthly rate of US$2.0bn.

To stabilize USD/LL at a given stock of currency in circulation and for a given money velocity, Lebanon needs to run a high enough current account surplus to bring in the equivalent USD into the country. The implied current account surplus required could this give an indication as to the equilibrium level of USD/LL. (However, note that the increased cash economy may mean that part of the inflows flow instead to net errors and omissions and do not flow to BdL or the banking sector. Furthermore, inflows would need to be qualified as fresh inflows to be withdrawn in USD from the banking sector in the current arrangements). The computed equilibrium exchange rate assumes the entire currency in circulation stock (multiplied by money velocity) is converted to USD for simplification. In practice, only a portion may be converted to USD.

We estimate the money velocity linked to currency in circulation (a measure of the number of times that the average unit of currency is used to purchase goods and services) dropped to 4.6 in 1Q20, from 8.2 in 2019 and 16.5 in 2018.

At the estimated June 2020 level for currency in circulation and with the lowest possible money velocity of 1, the trade-weighted Fx misalignment is 157.5% (equivalent to USD/LL at 4,713). With money velocity at 4.6, the trade-weighted Fx misalignment could be 428.8% (equivalent to USD/LL at 10,234) to be aligned with Fx conversions.

At the projected December 2020 level for currency in circulation (at current trends) and with the lowest possible money velocity of 1, the trade-weighted Fx misalignment is estimated at 194.2% (equivalent to USD/LL at 5,460). If money velocity stood at 4.6 instead, a trade-weighted Fx correction of 591.8% (equivalent to USD/LL at 13,551) would be needed to meet the Fx conversion needs.

With current currency in circulation growth, the equivalent end-year required trade-weighted Fx weakening could be 2,223% (USD/LL at 46,751), if money velocity increases to the 1987 peak level (18.6) seen during Lebanon's episode of hyperinflation.

**Table 3: Fair-values for USD/LL under different methodologies**

| Iteration number | Fair value vs. USD (Fx passthrough = 35%) | Fair value vs. USD (Fx passthrough = 0%) | Bilateral misalignment vs. USD | Trade-weighted misalignment (%) | Elasticity | Current account balance (% of GDP) | Long-term current account norm (% of GDP) | Current account imbalance (% of GDP) |
|---|---|---|---|---|---|---|---|---|
| 1 | 2,611 | 2,147 | 29.8 | 54.2 | 0.18 | -22 | -3.0 | -19.0 |
| 1a | 2,751 | 2,240 | 32.7 | 61.1 | 0.18 | -22 | 0.0 | -22.0 |
| 2 | 3,152 | 2,550 | 40.9 | 80.8 | 0.10 | -22 | -3.0 | -19.0 |
| 2a | 3,253 | 2,613 | 42.3 | 85.8 | 0.10 | -22 | 0.0 | -22.0 |
| 3 | 3,329 | 2,682 | 43.8 | 89.5 | 0.10 | -22 | 3.0 | -25.0 |
| Stable Net Foreign Assets (NFA) | 2,666 | 2,173 | 30.7 | 56.9 | 0.10 | -22 | -6.1 | -15.9 |
| Cncy in circulation (Jun-20, v=1) | 4,713 | 3,701 | 59.3 | 157.5 | 0.10 | -22 | 22.0 | -44.0 |
| Cncy in circulation(Jun-20,v=4.6) | 10,234 | 7,954 | 81.1 | 428.8 | 0.10 | -22 | 97.8 | -119.8 |
| Cncy in circulation (Dec-20, v=1) | 5,460 | 4,259 | 64.6 | 194.2 | 0.10 | -22 | 32.2 | -54.2 |
| Cncy in circulation(Dec-20,v=4.6) | 13,551 | 10,488 | 85.6 | 591.8 | 0.10 | -22 | 143.3 | -165.3 |
| Cncy in circulation(YE20,v=18.6) | 46,751 | 34,900 | 95.7 | 2,223.1 | 0.10 | -22 | 599.0 | -621.0 |

Source: Haver, BofA Global Research. Compass methodology based on data (including current account data) up to 2019. Smaller bilateral misalignment versus USD stem from overvaluation of USD in compass model. Bilateral misalignment is computed with respect to fair value rather than spot. Fair value vs USD (Fx passthrough = 35%) adjusts trade-weighted misalignment for the effect of higher inflation.

### USD/LL likely to overshoot fair-value

The likely overshooting in USD/LL could reflect the low Fx-elasticity of tourism and exports given the covid-19 disruptions in our view. The spread between the black market

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

rate and money changer rate also fuels arbitrage opportunities, although sale quotas at money changers and administrative requirements may dampen them. Arbitrage increases with the spread and could widen it further. The re-opening of the airport in July could support USD/LL through an increase in USD supply from cash remittances from expatriates, but could also start the process of emigration. The increase in inflation to elevated levels is likely to increase money velocity, further fuelling inflation and weakening USD/LL. Inflation stood at 56.6%yoy in May, from 3.2%yoy in September 2019 prior to protests.

### USD/LL slide likely to lead to spike in debt ratios and face-value cuts

Given the larger proportion of foreign-currency denominated debt in total government debt, the slide in USD/LL and increase in inflation would deflate domestic debt (as % of GDP) even as total government debt increases as a share of GDP. Illustratively, at USD/LL of 8,000 and 14,000, we see government debt at end-2020 at 278% of GDP and 353% of GDP, respectively. To bring the government debt under a restructuring to the government plan, a debt face-value cut to eurobonds and domestic debt of 65-74% would be needed in our view, 10-20ppt higher than the original government reform plan. (The 8,000 and 14,000 levels for USD/LL are set in reference to a scenario of modest strengthening in the black market rate, and of year-end fair-value estimate with money velocity at 4.6).

We think the continued large USD/LL slide will likely bring back the current account into surplus. However, this is likely to come at the cost of a depressed economic activity with nominal GDP to drop to just US$11-16bn in 2020, from US$52bn in 2019, with the effective USD/LL rate at 8,000-14,000. Lebanon's GDP per capita would thus be consistent with a low middle-income country status, dropping from a high middle-income country status. At this level of nominal GDP, capacity to shoulder and service Fx debt is likely to remain low for a prolonged period of time, in our view.

Much weaker effective USD/LL rates increase further the required total debt face-value cuts to bring back government debt to 100% of GDP. However, in this case, gains in deflating domestic debt start to be limited and GDP growth uncertainty could be high.

### Regulatory forbearance likely

A preliminary draft Circular discussed between BdL and ABL in late June suggests some regulatory forbearance could be in the offing, as per local reports. Under this draft proposal, banks would be required to constitute over a period of 5-10 years an Expected Credit loss provision (ECL) of 45% on eurobonds, and 30% on foreign-currency exposure to BdL in FCY (for maturities longer than 1-year). Although provisions could be lower than implied by eventual recovery values, the Circular could leave sizeable provisions to be built over a number of years. This could continue the deleveraging process in the banking sector and deprive the economy from credit expansion, in our view.

### New Cabinet in the offing?

Press reports suggest that the political class is discussing the possibility of an accord for a new Cabinet as the current executive branch sees its support erode. The shape of a new Cabinet and its ability to pursue reforms would be key to restore confidence domestically and internationally. A new Cabinet could further divide protestors, but USD/LL could strengthen in the black market if expectations of international support kick in. Sustaining gains would however require real and front-loaded reforms.

Ministry of Finance officials suggested that IMF talks have been suspended as of early July. As such, the window to restart them is narrow and will likely require constructive political decision-making and an element of domestic consensus.


This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

**Table 4: Government debt estimates and implied total government debt face-value cut with USD/LL illustratively at 8,000**

| Gross Government Debt (as of December 2020) | US$bn | LLbn | % of GDP |
|---|---|---|---|
| LL-denominated debt | 11.9 | 94,999 | 73.6 |
| Multilateral and bilateral debt | 1.8 | 14,248 | 11.0 |
| Eurobonds | 31.3 | 250,400 | 193.9 |
| **Total** | **45.0** | **359,647** | **278.5** |
| Total debt target under government plan | 16.6 | 132,762 | 102.8 |
| Debt to be restructured | 43.2 | 345,399 | 267.4 |
| Targeted debt relief | 28.4 | 226,886 | 175.7 |
| **Total implied debt face-value cut (%)** | **65.7** | **65.7** | **65.7** |
| Implied eurobond stock post-restructuring | 10.7 | 85,918 | 66.5 |
| Implied LL-debt stock post-restructuring | 4.1 | 32,596 | 25.2 |
| Implied multilateral debt stock post-restructuring | 1.8 | 14,248 | 11.0 |
| Memo: | | | |
| Nominal GDP | 16.1 | 129,146 | - |
| Total eurobond face-value cut if no LL debt face-value cut (%) | 90.6 | 90.6 | 90.6 |
| Implied eurobond stock post-restructuring | 2.9 | 23,514 | 18.2 |

Source: Haver, MoF, BofA Global Research. Real GDP growth assumed at -15% for 2020. We assume the 2020 fiscal deficit remains the same as under the government reform plan.

**Table 5: Government debt estimates and implied total government debt face-value cut with USD/LL illustratively at 14,000**

| Gross Government Debt (as of December 2020) | US$bn | LLbn | % of GDP |
|---|---|---|---|
| LL-denominated debt | 6.9 | 97,134 | 61.2 |
| Multilateral and bilateral debt | 1.8 | 24,934 | 15.7 |
| Eurobonds | 31.3 | 438,200 | 276.0 |
| **Total** | **40.0** | **560,268** | **352.8** |
| Total debt target under government plan | 11.7 | 163,237 | 102.8 |
| Debt to be restructured | 38.2 | 535,334 | 337.1 |
| Targeted debt relief | 28.4 | 397,031 | 250.0 |
| **Total implied debt face-value cut (%)** | **74.2** | **74.2** | **74.2** |
| Implied eurobond stock post-restructuring | 8.1 | 113,208 | 71.3 |
| Implied LL-debt stock post-restructuring | 1.8 | 25,094 | 15.8 |
| Implied multilateral debt stock post-restructuring | 1.8 | 24,934 | 15.7 |
| Memo: | | | |
| Nominal GDP | 11.3 | 158,791 | - |
| Total eurobond face-value cut if no LL debt face-value cut (%) | 90.6 | 90.6 | 90.6 |
| Implied eurobond stock post-restructuring | 2.9 | 41,169 | 25.9 |

Source: Haver, MoF, BofA Global Research. Real GDP growth assumed at -28% for 2020. We assume the 2020 fiscal deficit remains the same as under the government reform plan.

**Table 6: Government debt estimates and implied total government debt face-value cut with USD/LL illustratively at 40,000**

| General Government Debt (as of December 2020) | US$bn | LLbn | % of GDP |
|---|---|---|---|
| LL-denominated debt | 2.7 | 109,707 | 32.9 |
| Multilateral and bilateral debt | 1.8 | 71,240 | 21.4 |
| Eurobonds | 31.3 | 1,252,000 | 375.5 |
| **Total** | **35.8** | **1,432,947** | **429.8** |
| Total debt target under draft plan | 8.6 | 342,757 | 102.8 |
| Debt to be restructured | 34.0 | 1,361,707 | 408.4 |
| Targeted debt relief | 27.3 | 1,090,190 | 327.0 |
| **Total implied debt face-value cut (%)** | **80.1** | **80.1** | **80.1** |
| Implied eurobond stock post-restructuring | 6.2 | 249,642 | 74.9 |
| Implied LL-debt stock post-restructuring | 0.5 | 21,875 | 6.6 |
| Implied multilateral debt stock post-restructuring | 1.8 | 71,240 | 21.4 |
| Memo: | | | |
| Nominal GDP | 8.3 | 333,421 | - |
| Total eurobond face-value cut if no LL debt face-value cut (%) | 87.1 | 87.1 | 87.1 |
| Implied eurobond stock post-restructuring | 4.0 | 161,810 | 48.5 |

Source: Haver, MoF, BofA Global Research. Real GDP growth assumed at -35% for 2020. We assume the 2020 fiscal deficit remains the same as under the government reform plan.

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

# Lessons from high- and hyper-inflation peers

## The ghost of hyperinflation past

The ongoing developments bear some resemblance with the late 1980s crisis when Lebanon faced a rapid collapse in USD/LL and an inflation spike. At unchanged policies, the current situation points to material downside in USD/LL over the coming period.

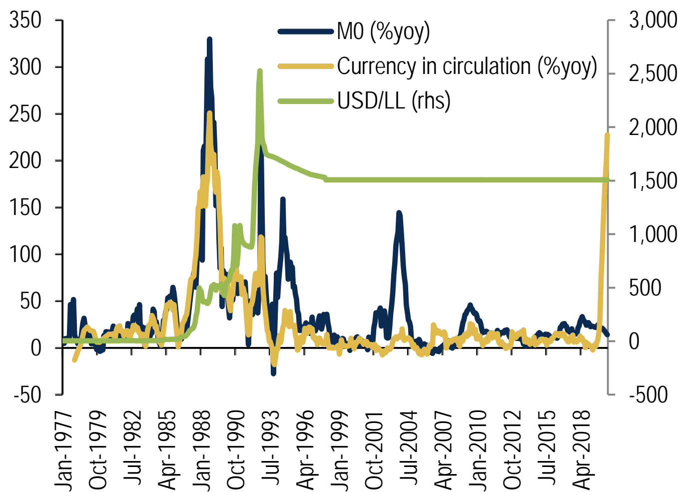
### Widespread destruction due to civil war

Lebanon underwent a civil war over the period 1975-1990. Nominal GDP hovered around US$2.6-2.8bn across the period, although, in LL terms, it increased from LL6bn to LL1,945bn. USD/LL weakened from 2.2 in April 1975 to a low of 2,500 in September 1992. After stabilization and subsequent appreciation, USD/LL was pegged at 1,507.5 in December 1997. Broad money growth stayed high, averaging 53%yoy over the period. Inflation averaged 100%yoy over 1980-90, as proxied by changes in the GDP deflator (in the lack of a time series for CPI prior to 1998).

### Hyperinflation takes hold in the late 1980s

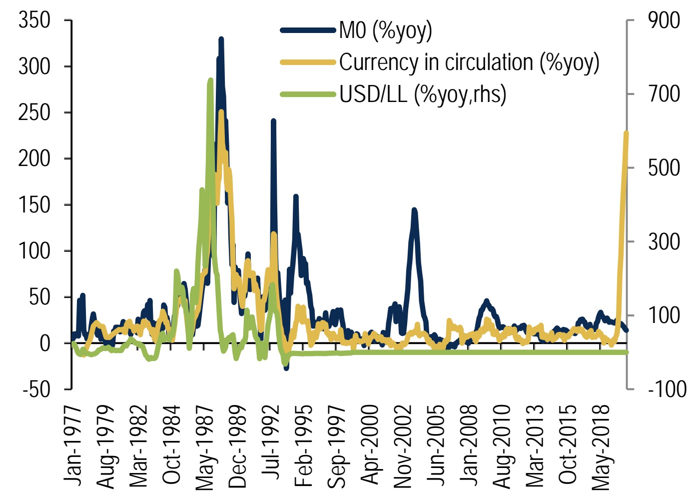
Very rapid and sustained high inflation took place between 1985 and 1992, peaking at just under 500%yoy in 1987. The rate of USD/LL weakness accelerated (concurrent with the retreat from BdL support policy over 1979-84), and the total depreciation stood at a large 29,123% over the 1985-1992 period. Currency in circulation spiked and peaked at 250% in September 1988. Money velocity with respect to currency in circulation and the monetary base spiked and peaked at 18.6 and 12.7 respectively in 1987, a 5-6 times increase over the 1984 levels. We think this likely reflects a severe drop in money demand and a large rise in inflation expectations as the BdL monetized the fiscal deficit.

**Chart 5: Currency in circulation spiked in the late 1980s hyperinflation**




Source: Haver, BofA Global Research. M0 corrects for netting operations, accounting discrepancies.

**Chart 6: Current monetary dynamics consistent with USD/LL at 10,000**




Source: Haver, BofA Global Research. M0 corrects for netting operations, accounting discrepancies.

### Material downside in USD/LL in coming years at unchanged policies

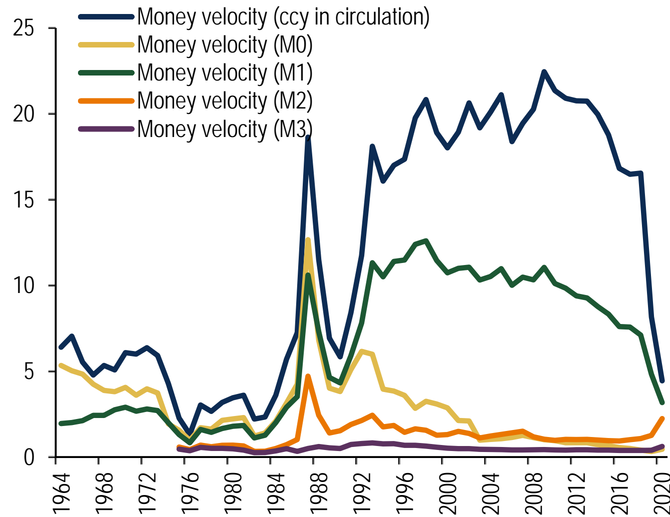
We see material downside to USD/LL in coming years in the lack of economic reforms, fiscal consolidation, monetary tightening, or Fx inflows associated in particular with an IMF program. The stock of currency in circulation increased by 89x between 1984-1992, roughly a factor of 10 each year. At current annualized trends, currency in circulation would have increased by a factor of 5 at year-end compared to September 2019 prior to mass protests.

We prefer the metric of currency in circulation to other monetary aggregates. The monetary base, in particular, is inflated by financial engineering and monetary operations to levels making the year-on-year changes less meaningful. We estimate reserve money increased by 15.7%yoy in May, while currency in circulation increased by 228% instead. Reserve money may misrepresent the monetary policy stance at this juncture as currency in circulation represented 6.6% of M0 in May, down from 67% in January 1980.


This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

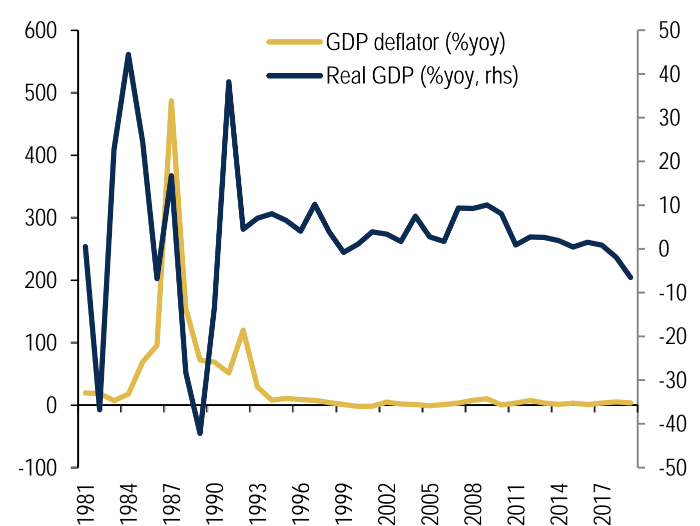
At the projected December 2020 level for currency in circulation (at current trends) and with money velocity of 18.6 (peak observed in 1987), the trade-weighted Fx misalignment is estimated at 2,223% (equivalent to USD/LL at 46,750). At this average effective USD/LL rate, nominal GDP could be as low as US$8bn and total government debt would stand at 430% of GDP at end-2020.

**Chart 7: Money velocity likely to spike as inflation increases**




Source: Haver, BofA Global Research. M0 corrects for netting operations, accounting discrepancies.

**Chart 8: Inflation likely spiked to c500%in the late 1980s**




Source: Haver, BofA Global Research. We proxy inflation through GDP deflator.

## Stylized facts from literature review

Despite being relatively uncommon phenomena in the recent post-war period, hyper- or high-inflation episodes have been well studied. There is a vast and rich body of academic literature to draw on for policy-makers and practitioners. We summarize the main stylized facts below and provide a read-through to Lebanon.

### Definition

The seminal work of Cagan, based on European episodes over the interwar period of 1920-1946, defines hyperinflations as those that begin in the month in which monthly inflation exceeds 50% and that end in the month before the month in which monthly inflation is less than 50% for at least one year. Hyperinflation became much less frequent since the 1950s, and chronic high inflation was generally progressively overcome in the 1980s-90s. Hyperinflations have occurred after the 1950s in economies in the throes of military conflict or with a history of high and chronic inflation.

### "Classical" versus "modern" hyperinflation

The literature distinguishes between "classical" hyperinflations and "modern" hyperinflations. The "classical" hyperinflations studied by Cagan occurred after World War I and were sharp and short episodes. Swift and radical monetary and fiscal reforms (through enforcing central bank independence and the use of the exchange rate as a nominal anchor) brought the episodes to an end with little output or employment cost.

"Modern" episodes were more prolonged ones, and were generally preceded by long episodes of chronically high inflation (although not all episodes eventually slid into Cagan's definition). It also took years in order to keep inflation down to predictable single-digits. Output growth drops sharply in the run-up to and during hyperinflations, rebounds but tends to remain subdued after stabilization. Scarcity is typically an issue.

### The typical modern hyperinflation cycle

Cagan's classic definition has been varied or relaxed to allow the study of a greater sample of episodes. A hyperinflation cycle can be generally divided into four phases: 1) *an extraordinary acceleration phase*, in which annual average inflation is higher than 50%,



This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

but less than 500%; 2) *a hyperinflation phase*, in which annual average inflation is higher than 500%; 3) a disinflation phase, in which annual average inflation falls from 500%+ to levels above 50%; and, 4) the *stabilization phase*, in which annual average inflation falls below 50% (and remains below this level for a number of years). The chosen inflation levels are arbitrary, but empirical regularity suggests they still accurately reflect thresholds for which the probability for inflation to continue to rise or to fall is elevated.

The duration of each phase is variable. The hyperinflation phase itself is generally the shortest and most intense phase, and witnesses the largest increase in reserve money, the sharpest contraction in economic activity, the most pronounced depreciation pace in the currency, and the most marked deterioration in social and governance indicators of all phases. In 19 “modern” hyperinflation cycles over the period 1972-2013, the average duration of a typical hyperinflation cycle was found to be 16-17 years with an annual average inflation of 893% and a median annual inflation of 45%.

### Bad policies, rather than bad luck, cause hyperinflations

Hyperinflations seldom occur in a vacuum. The literature points out that the backdrops to hyperinflations have generally been characterized by elements including a) poor governance and domestic instability; b) unsustainable fiscal and monetary policies as characterized by large deficits and reserve money growth; c) budget deficit monetization; d) exchange rate misalignment and/or correction; e) external default; and, f) economic distortions (capital controls, multiple exchange rates and a large premium in the parallel market rate, etc). As such, underlying causes (monetary, fiscal, external) could effectively act as self-reinforcing mechanisms in such episodes.

### The financial sector suffers too

Hyperinflations exacerbate banking crises and financial disintermediation. With money losing its definitional characteristics and economic functions (medium of exchange, unit of account, store of value), money velocity spikes and money demand tends to drop sharply. Large and sustained deposit withdrawals take place, NPLs increase, and dollarization becomes more entrenched.

### Elements of a successful disinflation program

It is commonly accepted in the academic literature that stopping a hyperinflation cycle requires: a) much tighter fiscal and monetary policies, with credible upfront adjustment; b) external accounts closer to balance; and, c) regaining domestic stability. The literature emphasizes the need for a credible, decisive and abrupt change in policy regime, ideally embedded in legal and institutional reforms, to re-anchor domestic expectations.

A common feature of all ends to modern hyperinflations has been the introduction of major fiscal consolidation. Exchange rate unification is generally a defining feature of typical stabilization measures. However, the nominal anchor has differed from country to country, and has varied from full currency convertibility (currency board) to less strict institutional constraints (including hybrid monetary and exchange rate regimes with money-based stabilization focus). Of course, the choice between money anchor and exchange rate anchor itself depends on the level of international reserves.

Heterodox policies in the 1980s also included price freezes and wage controls to complement the stabilization package, in part due to policy effect lags. That being said, wage indexation remained a feature of post-hyperinflation episodes in some countries.

A large number of hyperinflation countries solicited international financial support, policy and technical advice - some in subsequent years following the initial stabilization efforts.

## A read-through to Lebanon

Lebanon appears to now exhibit elements consistent with the backdrop preceding both classical (temporary) and modern (chronic) high- and hyperinflation episodes. However, the status quo, whether by policy design, inaction or paralysis, raises the risk of a costly inflation spiral. The fractured policy-making framework and poor governance raise risks



This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

in regards to timely implementation of either a narrow stabilization program, or a more ambitious broad-based reform program supported by the international community.

The sharp exchange rate moves in a short period of time are likely to lead to unanchored Fx and price expectations. In turn, demand for real money balances is likely to decline with expected inflation, pushing money velocity higher and self-reinforcing the negative Fx-price spiral, in our view. At an effective USD/LL rate of 10,000, typical Fx passthrough ratios suggest CPI inflation could approach 200%. As such, an extreme and sustained high inflation backdrop could carry with it the danger of hyperinflation in the absence of corrective policy measures.

In the context of Lebanon, we would further expect that part of a monetary tightening package could prove divisive. In essence, the large deposit withdrawals reflect both a) a classical bank run; and, b) a policy of *de-facto* forced currency conversion, reducing banking sector Fx-denominated liabilities. The former requires credible reform to address, while the latter stems from possibly entrenched political economy considerations and policy choices, in our view. We think this monetary dynamic thus likely fuels increases in currency in circulation and conversion activity in the black Fx market. While there are some quotas on withdrawals, liquidity injections occur through price effects (conversion rate provided by the banking sector) and could be subsequently compounded by increases in money velocity. The reduction of the quota and subsequent reduction of access to deposits is likely to be resisted by households in the absence of reforms.

The importance of promptly announcing and implementing a credible, front-loaded reform and stabilization program should not be understated. Even the experience of Lebanon itself during its 1980s hyperinflation episode shows that forward expectations can be responsive. Indeed, the country witnessed some appreciation in USD/LL during the civil war at times when a positive political outcome was expected locally. However, time is likely of the essence at the current juncture, in our view.

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

# EXD strategy - Fx hurdle; eurobonds to remain in teens

**Andrew MacFarlane, CFA**
MLI (UK)
andrew.macfarlane@bofa.com

**Jane Brauer**
BofAS
jane.brauer@bofa.com

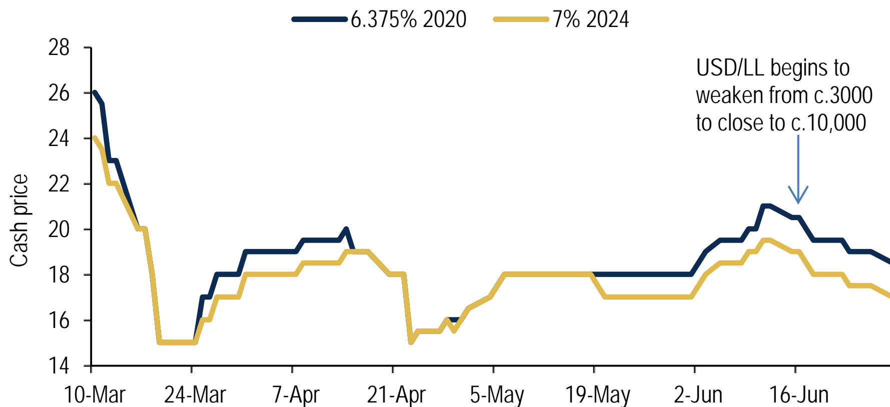
**Jean-Michel Saliba**
MLI (UK)
jean-michel.saliba@bofa.com

The recent weakness in USD/LL is likely to further hurt recovery value, and increases the risk that creditor negotiations are unable to reach an agreement. Bonds have reacted to the weakening Fx, but still remain around 2pt+ above the lows of March and April. If authorities wish to maintain their c100% of GDP debt target, face-value cuts of principal will likely need to increase. This could push recovery values to the mid-teens. Furthermore, authorities may need to revise their coupon assumptions from the April proposal. By this point, recoveries could be heading towards 10pt. We imagine investors would be unlikely to accept such an outcome, and negotiations would be at risk of breaking down. At that point, we would expect bonds would trade in the low teens.

## Fx weakness filtering into bond prices and recoveries

In early June, LEBAN bonds rallied around 2pt into the low 20s (front-end). However, since currency pressure began around mid-June, bonds have fallen 2.5pt. However, bonds are not back to the lows seen in March (post-default) and late-April despite the significant Fx pressures.

**Chart 9: Bonds under pressure from Fx, but not back to lows**




Source: Bloomberg

We further note that growing differential between the front-end and other bonds suggesting investors believe these bonds will be able to negotiate a different restructuring (similar to Ukraine in 2015 for example). Indeed, <2022 bonds now trade around 1 – 1.5pt higher versus the rest of the curve.

**Fx weakness = re-assessing haircut; recovery down to mid-teens.**
Lebanon's high levels of foreign currency denominated debt mean the recent Fx depreciation creates pressure for even higher reductions of principal and/or coupons, should authorities still aim to get down to 100% of GDP debt.

We first analyze a scenario where USD/LL gains modestly versus current black market rates to 8,000. We estimate total debt would reach 279% of GDP, requiring a 65.7% reduction in principal of applicable debt (domestic and eurobonds) to get towards the 100% target. At this stage, we main our previous assumption for coupon levels; that is


This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

the owner of 1 LEBAN bond currently would receive a new bond with a comparable coupon of 1.18%, stepping up to 3%. We estimated these levels from the illustrative government scenario back in April.

Our recovery value is based on the assumption that bondholders exchange their current bonds for new bonds of 10, 15, and 20y maturities, issued at start-2021. We assume the lower coupon for 4 years, before the step-up. With market conditions improving since March/April, we lower our exit yield assumptions, but still keep them high (relative to other restructuring examples) given Lebanon's vulnerabilities.

**Table 7: Recovery values with 65.7% reduction in face value**

| | | | Exit yield | | |
|---|---|---|---|---|---|
| | *Initial coupon* | *step-up coupon* | 12% | 14% | 16% |
| 10y step-up bond | *1.18* | *3* | 21.0 | 18.1 | 15.6 |
| 15y step-up bond | *1.18* | *3* | 19.8 | 16.5 | 14.0 |
| 20y step-up bond | *1.18* | *3* | 19.1 | 15.8 | 13.2 |

Source: BofA Global Research. The coupons are in reference to the 100 par value a bondholder currently claims, not the post-restructuring face value. However, since the face value is reduced, the step-up coupon % for the new bond would be 3/34.3 = 8.7%.

Such recoveries are reasonably close to current bond prices, particularly for new 10 -15y bonds. We also emphasize that we have excluded Past Due Interest (PDI) from our assumptions, which could potentially help recovery by a few pts.

## Further Fx weakness increases risk of higher haircut

A risk for bondholders will be that the current weak Fx trend continues, pushing USD/LL illustratively to 14,000. With high levels of foreign currency denominated debt, public debt clearly increases sharply. Nominal GDP denominator benefits from high inflation, mitigating the impact, but growth could come under severe pressure in such a scenario.

We assume debt reaches 353% of GDP at such Fx levels. We incorporate a 74.2% reduction in face value to push debt down to the 102.8% target. We maintain the same coupon assumptions as the USD/LL 8,000 scenario above.

**Table 8: Recovery values with 74.2% reduction in face value**

| | | | Exit yield | | |
|---|---|---|---|---|---|
| | *Initial coupon* | *step-up coupon* | 12% | 14% | 16% |
| 10y step-up bond | *1.18* | *3* | 18.5 | 16.0 | 13.9 |
| 15y step-up bond | *1.18* | *3* | 18.4 | 15.5 | 13.2 |
| 20y step-up bond | *1.18* | *3* | 18.3 | 15.2 | 12.8 |

Source: BofA Global Research. The coupons are in reference to the 100 par value a bondholder currently claims, not the post-restructuring face value.

The impact on NPV relative to the 8,000 USD/LL scenario is around 0.4 – 2.5pt, since we are only changing the principal cash-flow (and keeping coupons in US$ terms the same). Recoveries here are generally in the mid-teens, below current market prices.

A clear risk in such a weak Fx environment is that authorities try to reduce coupons relative to their original proposal as well. If we assume there is no step-up coupon (i.e. annual coupon remains 1.18 throughout), recovery falls sharply, even into single digits.

**Table 9: Recovery values with 74.2% reduction in face value and no coupon step-up**

| | | | Exit yield | | |
|---|---|---|---|---|---|
| | *Initial coupon* | *step-up coupon* | 12% | 14% | 16% |
| 10y step-up bond | *1.18* | *NA* | 14.0 | 12.1 | 10.5 |
| 15y step-up bond | *1.18* | *NA* | 11.9 | 10.0 | 8.5 |
| 20y step-up bond | *1.18* | *NA* | 10.7 | 9.0 | 7.6 |

Source: BofA Global Research. The coupons are in reference to the 100 par value a bondholder currently claims, not the post-restructuring face value.

## At this point, bondholder negotiations at risk of breaking-down

If USD/LL was to reach such a weak level or weaken further, we see risks of negotiations coming to a standstill. Such large cuts to face value and coupons would likely be

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

unacceptable for investors. We think they may feel instead that it is worth delaying negotiations in hope of a better outcome in the future.

At the same time, Lebanon's domestic debt burden would have fallen sharply in % of GDP terms due to the inflationary impact on nominal GDP. At such weak Fx levels, the current account deficit is also likely to have closed. Authorities themselves may be happy to delay negotiations (potentially for an extended period of time) until the economy improves. While the domestic banking sector would suffer from the lack of security interest income, regulatory forbearance is likely to allow large capital write-downs.

Either way, such a situation could show some similarities to Venezuela, with effectively no negotiations between authorities and bondholders. We examine Venezuela and other distressed peers restructurings below, and note that bonds have traded in low-teens in these cases. As such, we think that, in a breakdown of negotiations, LEBAN bonds are likely to trade in the low-teens, if not lower, in such a scenario.

### Reforms could change trajectory

The scenarios above assume USD/LL remains weak or weakens further, but we acknowledge major reforms could reverse this trend and strengthen the currency., We think there would be less need for such large haircuts in a reform scenario. Recoveries in the 20s would likely be achievable, depending on where USD/LL settles in our view.

## Lessons from distressed peers

Investors in Lebanese eurobonds could use as a guide for eventual recovery value the experience of other sovereign bond defaults in highly distressed cases, rather than using a broad average of historical recovery values for sovereign defaulted debt, in our view. Sovereign bond prices after a default partially reflect fundamentals, while other factors also contribute, such as supply and demand, legal attributes and Collection Action Clauses (CACs), ownership, size, existence of external attachable assets, and obligor. Of course, each situation has its own features. We highlight below three large such defaults: Venezuela, Iraq and Russia.

**Venezuela 2017** *($10-20 - trading range of price of bonds per face)*: Venezuela, including its wholly owned oil company, PDVSA, continued to pay bondholders, despite falling export revenues and Fx reserves, shortages of essential goods and deteriorating infrastructure. Because oil represented c95% of Venezuela's export revenues and PDVSA had potentially attachable foreign assets in the US, bondholders perceived value due to the continued coupon payments until November 2017 and the country's fear of asset attachment, despite the worsened socio-economic situation.

In addition, investors likely believed that the Maduro regime was not sustainable and that bond payments could be supported by future oil revenues after a political transition, thought to be in the near future. Against the backdrop of US sanctions on Venezuelan oil exports, the Maduro regime remains entrenched. Bond prices dropped from mid-$30s to $15-$20 after the default, but then rallied to $25-30 when prospects for political transition increased after the international community recognized the leadership of Juan Guaido. When a transition did not occur and the country's situation deteriorated much further, we believe bond prices could have dropped well below $20. However, US sanctions imposed 18 months ago that do not allow US persons to buy Venezuela or PDVSA bonds caused the price to drop instead to under $5.

**Russian 1996** *($6 - lowest trading price of old bonds per face)*: Russia had agreed to take on the obligations of the bonds issued by the former Soviet state-owned bank, Vnesheconombank, while subsequently issuing Russian Federation eurobonds. The Vnesh bonds dropped to a low of $6 when Russia defaulted on the Vnesh bonds and on local debt, as investors expected that Russia would stop paying without restructuring, given the Soviet obligor, and there was little recourse. The eurobonds traded down to $20. Russia eventually did restructure the debt in 2000.



This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

**Iraq 2004** *($10 - recovery value per original loan face of private creditors)***:** following the end of the Iraq war, Iraq's public external debt stock stood in 2004 at US$142bn (389% of GDP), consisting of commercial, multilateral and bilateral loans, but no eurobonds. Paris Club (PC) creditors agreed with Iraq in 2004 on a comprehensive debt treatment of public external debt, providing a total amount of debt reduction of 80% in Net Present Value (NPV) in three phases. The first two phases respectively entered into force on 21 November 2004 and on 23 December 2005. The remaining third phase, conditional upon the successful completion of the last review of the IMF Stand-By Arrangement (SBA), was granted in December 2008. The restructuring provided commercial creditors with a bond that subsequently priced around $70 when trading started in January 2006.

Iraq had significant oil reserves, attachable overseas assets, and its successful post-war reconstruction was seen as a priority. The Development Fund for Iraq (DFI) was thus set up in May 2003 by UN Security Council (UNSC) resolution 1483 to hold oil export proceeds, as well as the balance from the Oil-for-Food program and frozen Iraqi funds. The DFI arrangement granted immunity from legal proceedings to Iraqi hydrocarbon and DFI receipts, allowing for completion of Iraq's debt restructuring and preventing potential holdout creditors from attaching assets.

Since dissolution of the Coalition Provisional Authority in 2004, the DFI has been fully under the Control of the Iraqi government. It was managed by the Central Bank of Iraq (CBI) at the NY Fed on behalf of the Ministry of Finance. The legal status of the DFI changed in late May 2014 and immunity of DFI funds was lifted. As a result, Iraq moved the balance of DFI funds to the CBI NY account. DFI funds thus were counted as international reserves and benefited from de facto immunity from legal claims.

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.
CB

# Appendix - bibliography

Cagan P, 'The Monetary Dynamics of Hyperinflation', Studies in the Quantity Theory of Money, ed. by Milton Friedman (Chicago: University of Chicago Press), pp. 25–117 (1956)

Castillo M, 'Theoretical Background on External Sustainability Assessments', Technical Note IDB-TN-1096, Inter-American Development Bank (September 2016)

Coorey S, Clausen J, Funke N, Muñoz S, Ould-Abdallah B, 'Lessons from High Inflation Episodes for Stabilizing the Economy in Zimbabwe', IMF Working Papers WP/07/99 (April 2007)

Fischer S, Sahay R, Végh C, 'Modern Hyper- and High Inflations', Journal of Economic Literature, Vol. 40, pp. 837–80, (September 2002)

Lee J, Ostry J, Prati A, Ricci L, Milesi-Ferretti G, "Exchange Rate Assessments; CGER Methodologies", IMF Occasional Papers 261 (November 2006)

Reinhart C, Savastano M, 'The Realities of Modern Hyperinflation', Finance and Development, Vol. 40, pp. 20–23, IMF (2002)

Saboin J, "The Modern Hyperinflation Cycle: Some New Empirical Regularities", IMF Working Papers WP 18/266 (December 2018)

Saidi N, 'Economic Consequences of the War in Lebanon', Centre for Lebanese Studies (September 1986)

Sargent T, 'The Ends of Four Big Inflations', Inflation: Causes and Consequences, ed. by Robert E. Hall (Chicago: University of Chicago Press), pp. 41–97 (1982)

Vegh C, 'Stopping High Inflation: An Analytical Overview', IMF Working Papers WP/91/107 (November 1991)



This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

## Valuation & risk

**Iraq (IRAQ)**

We have a Marketweight recommendation on Iraq EXD. The economy and bonds should benefit from stronger oil prices, but this is offset by a loss of engagement with the IMF program.

The downside risks are lower than expected oil prices, a decline in oil exports, increased political uncertainty, reform implementation failure, bond supply risk or a territorial breakup.

The upside risks are higher than expected oil prices, a decline in geopolitical risks, and steady adoption of reformist macro policies (bringing the IMF program back on track).

**Lebanon (LEBAN)**

We are marketweight on Lebanon. Bonds already price in a severe restructuring, reflecting the credit challenges the country faces. The final restructuring outcome remains unclear, although we think it could be reasonably close to current market prices (particularly when PDI is included), depending on where USD/LL settles.

Upside risks come from a potential IMF program and strong reform implementation. Such developments could reduce the haircut for eurobonds in a restructuring.

Downside risks stem from mass protests, uncertain political direction and the potential for a disorderly adjustment. Fx weakness is a concern, and could affect recovery value.

**Russia (RUSSIA)**

We have a Marketweight recommendation on Russia's EXD. Fundamentals are supported by high oil prices and strong debt metrics, but bonds trade at IG levels, indicating this is priced-in. Downside risks comes from further sanctions and lower oil prices. Upside would come from a reduction in political tensions (particularly vs. US), higher oil prices, and growth improvements.

**Venezuela (VENZ)**

We are Underweight Venezuela sovereign bonds because we are concerned that a potential index exclusion for PDVSA bonds may lead investors to reduce positioning in Republic bonds. We expect bond prices to fall if investors perceive that President Maduro will be in for the long haul, keeping sanctions on Venezuela in place. We expect bond prices to rise if a regime change to a market friendly government takes place and foreign countries lift sanctions.

## Analyst Certification

We, Jean-Michel Saliba, Andrew MacFarlane, CFA, Jane Brauer and Jure Jeric, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

## Special Disclosures

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

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.
CB

Due to the current political situation involving Venezuela, the governments of the United States, Canada, and the member states of the European Union have imposed certain sanctions on various individuals and entities tied to the Government of Venezuela. These sanctions vary by jurisdiction, but generally prohibit citizens and entities incorporated under the laws of those countries imposing sanctions from having commercial dealings with sanctioned parties and also require them to freeze the assets of sanctioned parties. Additionally, US sanctions enforced by the Treasury Department's Office of Foreign Assets Control (OFAC) impose restrictions on any financial or commercial dealings by US individuals or companies, directly or indirectly, with the Government of Venezuela or any political subdivision, agency or instrumentality, including the Central Bank of Venezuela and Petróleos de Venezuela, S.A. (PdVSA), and anyone who is or becomes designated on the list of specially designated nationals unless authorized by a general or specific license. Investors who are US persons should be aware of the OFAC sanctions requirements and advised that violations can result in civil and/or criminal penalties. For further information on US-related sanctions, please consult with www.treasury.gov/resource-center/sanctions.


This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.
CB

# Disclosures

## Important Disclosures

**Credit opinion history**

**Iraq / IRAQ**

| Sovereign | Date^ | Action | Recommendation |
|---|---|---|---|
| Iraq / IRAQ | 30-Jun-2017 | | Marketweight |

Table reflects credit opinion history as of previous business day's close. ^First date of recommendation within last 36 months. The investment opinion system is contained at the end of the report under the heading "BofA Global Research Credit Opinion Key."

**Lebanon / LEBAN**

| Sovereign | Date^ | Action | Recommendation |
|---|---|---|---|
| Lebanon / LEBAN | 30-Jun-2017 | | Marketweight |
| | 14-Sep-2017 | Upgrade | Overweight |
| | 06-Nov-2017 | Downgrade | Marketweight |

Table reflects credit opinion history as of previous business day's close. ^First date of recommendation within last 36 months. The investment opinion system is contained at the end of the report under the heading "BofA Global Research Credit Opinion Key."

**Russia / RUSSIA**

| Sovereign | Date^ | Action | Recommendation |
|---|---|---|---|
| Russia / RUSSIA | 30-Jun-2017 | | Marketweight |

Table reflects credit opinion history as of previous business day's close. ^First date of recommendation within last 36 months. The investment opinion system is contained at the end of the report under the heading "BofA Global Research Credit Opinion Key."

**Venezuela / VENZ**

| Sovereign | Date^ | Action | Recommendation |
|---|---|---|---|
| Venezuela / VENZ | 30-Jun-2017 | | Marketweight |
| | 22-Oct-2018 | Downgrade | Underweight |

Table reflects credit opinion history as of previous business day's close. ^First date of recommendation within last 36 months. The investment opinion system is contained at the end of the report under the heading "BofA Global Research Credit Opinion Key."

**BofA Global Research Credit Opinion Key**

BofA Global Research provides recommendations on an issuer's bonds (including corporate and sovereign external debt securities), loans, capital securities, equity preferreds and CDS as described below. Convertible securities are not rated. An issuer level recommendation may also be provided for an issuer as explained below. BofA Global Research credit recommendations are assigned using a three-month time horizon.

**Issuer Recommendations**: If an issuer credit recommendation is provided, it is applicable to bonds and capital securities of the issuer except bonds and capital securities specifically referenced in the report with a different credit recommendation. Where there is no issuer credit recommendation, only individual bonds and capital securities with specific recommendations are covered. Loans, CDS and equity preferreds are rated separately and issuer recommendations do not apply to them.

BofA Global Research credit recommendations are assigned using a three-month time horizon:
**Overweight:** Spreads and /or excess returns are likely to outperform the relevant and comparable market over the next three months.
**Marketweight:** Spreads and/or excess returns are likely to perform in-line with the relevant and comparable market over the next three months.
**Underweight:** Spreads and/or excess returns are likely to underperform the relevant and comparable market over the next three months.

BofA Global Research uses the following rating system with respect to **Credit Default Swaps (CDS):**
**Buy Protection:** Buy CDS, therefore going short credit risk.
**Neutral:** No purchase or sale of CDS is recommended.
**Sell Protection:** Sell CDS, therefore going long credit risk.

**Sovereign Investment Rating Distribution: Global Group (as of 30 Jun 2020)**

| Coverage Universe | Count | Percent | Inv. Banking Relationships* | Count | Percent |
|---|---|---|---|---|---|
| Buy | 9 | 21.95% | Buy | 5 | 55.56% |
| Hold | 24 | 58.54% | Hold | 9 | 37.50% |
| Sell | 8 | 19.51% | Sell | 5 | 62.50% |

* Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only Sovereign issuer recommendations. A Sovereign issuer rated Overweight is included as a Buy, a Sovereign issuer rated Marketweight is included as a Hold, and a Sovereign issuer rated Underweight is included as a Sell.

Credit Opinion History Tables for the securities referenced in this research report are available at https://pricecharts.baml.com, or call 1-800-MERRILL to have them mailed.
The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Russia.
BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Russia, Venezuela.
The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: Russia, Venezuela.
BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: Russia.
BofAS or one of its affiliates has a significant financial interest in the fixed income instruments of the issuer. If this report was issued on or after the 15th day of the month, it reflects a significant financial interest on the last day of the previous month. Reports issued before the 15th day of the month reflect a significant financial interest at the end of the second month preceding the report: Iraq.
BofAS or one of its affiliates trades or may trade as principal in the debt securities (or in related derivatives) that are the subject of this research report: Iraq, Lebanon, Lebanon (Treasury), Russia, Venezuela.

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: Russia.
Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.
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 the purpose of any recommendation in relation to: (i) 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; or (ii) 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 Merrill Lynch representative or Merrill Lynch 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.
BofA Global Research policies relating to conflicts of interest are described at https://rsch.baml.com/coi
**"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 ("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); BAMLI DAC (Milan): Bank of America Merrill Lynch International DAC, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BAMLI DAC (Frankfurt): Bank of America Merrill Lynch International DAC, Frankfurt Branch regulated by BaFin, 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 Investment Industry Regulatory Organization of Canada; 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; Merrill Lynch (Japan): Merrill Lynch Japan Securities 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; DSP Merrill Lynch (India): DSP Merrill Lynch Limited, regulated by the Securities and Exchange Board of India; Merrill Lynch (Indonesia): PT Merrill Lynch Sekuritas Indonesia, regulated by Otoritas Jasa Keuangan (OJK); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (Russia): OOO Merrill Lynch Securities, Moscow, regulated by the Central Bank of the Russian Federation; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Spain): Merrill Lynch Capital Markets Espana, S.A.S.V., regulated by Comisión Nacional del Mercado De Valores; 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 Merrill Lynch (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 DSP Merrill Lynch (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) distribute this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of BANA Australia, 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. BAMLI DAC (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BAMLI DAC 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 use this link http://www.bankofamerica.com/emaildisclaimer 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.


This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.
CB

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. 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.

UK Readers: The protections provided by the U.K. regulatory regime, including the Financial Services Scheme, do not apply in general to business coordinated by BofA Securities entities located outside of the United Kingdom.

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:

Copyright 2020 Bank of America Corporation. All rights reserved. iQprofile℠, iQmethod℠ are service marks of Bank of America Corporation. iQdatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

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.

Subject to the quiet period applicable under laws of the various jurisdictions in which we distribute research reports and other legal and BofA Securities policy-related restrictions on the publication of research reports, fundamental equity reports are produced on a regular basis as necessary to keep the investment recommendation current.

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 its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies.
Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.


This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB

# Research Analysts

**Jean-Michel Saliba**
MENA Economist/Strategist
MLI (UK)
+44 20 7995 8568
jean-michel.saliba@bofa.com

**Andrew MacFarlane, CFA**
EEMEA FI Strategist
MLI (UK)
+44 20 7995 5195
andrew.macfarlane@bofa.com

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

**Jure Jeric >>**
EEMEA Cross Asset Strategist
MLI (UK)
+44 20 7996 2736
jure.jeric@bofa.com

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in FX markets and the financial resources to absorb any losses arising from applying these ideas or strategies.
>> Employed by a non-US affiliate of BofAS and is not registered/qualified as a research analyst under the FINRA rules.
Refer to "Other Important Disclosures" for information on certain BofA Securities entities that take responsibility for the information herein in particular jurisdictions.

This document is being provided for the exclusive use of SHARIF EL KHAZEN at METRONOME CAPITAL LLP.

CB