

Macro – political impasse increases hard landing risks

The political standoff has so far persisted as regional instability likely narrows room to compromise. The pace of BdL (Banque du Liban) Fx reserves loss implied by mid-November data suggests 2020 could be a crunch year. A sharp halt to the economy is likely to reduce external funding needs, but the damage done to depositor confidence may be long-lasting. The latter may fundamentally impair the country's funding model in the absence of an urgent political settlement, comprehensive reform program and material external support.

We argued in a previous [paper](#) that current macro dynamics appear unsustainable. We turn our focus to potential external debt recovery value, should a restructuring occur.

Recovery value: low; IMF could help avoid worst outcome

Our work suggests that recovery value is likely to be low, but a potential IMF program could improve recovery value compared to disorderly scenarios. We would expect face-value cuts to total government debt to stand at 70-80% under a disorderly adjustment. Under a typical, hypothetical, IMF program, we would expect 50% face-value cuts to total government debt stock and a 50% cut to coupon rates, with exit government debt at 100-110% of GDP. Market expectations, as reflected in asset pricing, appear instead consistent with 35% face-value cuts to total government debt and to coupon rates.

Banking sector in the eye of the storm

The banking sector is coming under stress from an Fx asset-liability duration mismatch arising from its large combined exposure to the government and the BdL. We quantify the impact of a potential debt restructuring on the banking sector capital position. We find that maintaining financial stability and restoring domestic confidence could depend on coherent and front-loaded economic reforms, in conjunction with large external support likely underpinned by an IMF program, in our view.

EXD Strategy – plenty of downside, not so much upside

Principal eurobond payments beginning in March 2020 may prove too large for Lebanon, affecting willingness to pay. Market pricing seems somewhat optimistic to us in a potential restructuring scenario. We see a more sustainable fiscal picture under larger (e.g. 50%) reductions in principal, coupons, and maturity extensions. Bonds need to move into the 30s for us to turn more constructive. Upside could come from softer restructuring requirements under external support, but realistic upside may not be much more than 5pt from current prices in such a scenario.

For investors who wish to go long, or are looking at CDS-basis trades/Relative Value (RV) trades, the amount and timing of coupons are likely to be important, particularly if past due interest is itself potentially haircut. If a cut is assumed, the '30s and '25s may be good options since we see a higher chance of them paying a full coupon in February. The lack of Collective Action Clauses (CACs) across several classes suggests that bonds would hypothetically be restructured series by series. Recovery value is unlikely to be supported by BdL assets held abroad given international central bank asset immunity.

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.

BoFA Merrill Lynch 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 50 to 52. Analyst Certification on page 49. Valuation & Risk on page 49.

12070039

TransformingWorld Markets:Frontier

GEM Fixed Income Strategy & Economics
EEMEA

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

EEMEA FI Strategy & Economics
MLI (UK)

GEMs FI Strategy & Economics
BofAS

[See Team Page for List of Analysts](#)

Contents

Macro: assessing recovery value	3
Summary of main views	3
Political impasse keeps Fx reserves under pressure	6
Peer restructuring lessons	11
IMF program no bailout	16
Recovery value: low; IMF could help avoid worst outcome	20
Banking sector recap costs: in the eye of the storm	27
EXD: plenty of downside, not much upside	35
Lebanon government debt – an overview	35
First big pressure point = March 2020	37
Restructuring scenarios – impact on NPVs	39
Incorporating coupons into the equation	44
Recovery unlikely to be improved through BdL assets	46
Terms of Lebanon eurobonds	46
Lebanon CDS – focusing on the triggers	47
Research Analysts	53

Macro: assessing recovery value

Jean-Michel Saliba

MLI (UK)

jean-michel.saliba@bofa.com

Andrew MacFarlane, CFA

MLI (UK)

andrew.macfarlane@bofa.com

Summary of main views

We have argued in a previous [paper](#) that current macro dynamics appear unsustainable. An urgent peaceful resolution to the political impasse, credible reform efforts, and international support could buy time. However, the damage done to depositor confidence may be both acute and long-lasting, endangering the current funding model. Hence, we now turn our focus to potential external debt recovery value, should a restructuring occur, and assess various hypothetical macro and restructuring scenarios.

A restructuring, if it occurs, is likely to be a complex exercise given the extent to which sovereign, banking sector and central bank balance sheets are intertwined, and policy-maker weariness of further socio-political instability due to repercussions of potential austerity, potential devaluation and/or potential deposit bail-ins, in our view.

Lebanon's government debt is one of the largest in the world. Total 2019F government debt could stand at US\$88.4bn (154.5% of GDP), with domestic-currency debt of US\$55.1bn (96.3% of GDP) and foreign-currency debt of US\$33.3bn (58.1% of GDP). We estimate up to US\$11.8bn in eurobonds could be held by international market participants.

Time could be rapidly running out

At the current pace of BdL Fx reserves loss (US\$0.9bn in the one week of operations for the banking sector in November), BdL Fx reserves would be depleted by end-1H20. While there were already strict banking sector restrictions in that week, banks may have allowed more outflows than they were prepared to service going forward. This could be due to them attempting to service a backlog of demand and restore some normalcy. Assuming the current pace of Fx reserves loss slows down to half, we estimate BdL Fx reserves could last until end-2020. Even if one assumes the current pace of Fx reserves loss slows down by two-thirds, BdL Fx reserves could stand at US\$7.6bn by end-2020.

We previously [estimated](#) that gross liquid Fx resources of the banking system (BdL + banks) of cUS\$44bn would be depleted in 3.3-4.3 months in the event of an Fx deposit bank run. Under stringent capital controls, we estimated that BdL could instead sustain the shock for 1-2 years.

No imminent financial support

We expect no financial support to Lebanon under the current caretaker government. Local press reports the international community is reluctant to negotiate financial support before a) the formation of a technocratic Cabinet that would restore public order; and, b) the adoption of a macro stabilization and structural adjustment IMF program. France is looking to organize an international support forum in coming weeks, on the condition that the future Cabinet commits to reforms. We think any Gulf Cooperation Council (GCC) support to a forthcoming Cabinet will likely be tied to its political orientations and to the existence of credible reforms.

IMF program no bailout

The IMF assessment of overvalued exchange rate, unsustainable external debt and unsustainable government debt under current policies suggests tough conditionality to restore sustainability and justify funding. At the current juncture, a potential IMF program would need to be grounded in exceptional access limits given large external funding requirements. Staff assessment would thus imply the need for devaluation, debt restructuring and fiscal consolidation, in our view.

Recovery value: low; IMF could help avoid worst outcome

Our work suggests that recovery value is likely to be low, but an IMF program is likely to improve recovery value compared to disorderly scenarios without it. We would expect face-value cuts to total government to stand at 70-80% under a disorderly adjustment. Under a typical, hypothetical, IMF program, we would expect 50% face-value cuts to total government debt stock and a 50% cut to coupon rates. We estimate market expectations, as reflected in asset pricing, are instead consistent with 35% face-value cuts to total government debt and to coupon rates.

In the absence of a political settlement and a return of domestic confidence, avoiding deposit bail-ins could thus likely depend on: a) the timely approval and execution of an IMF program; b) the extent and timing of the decrease in gross fiscal financing requirements; c) the overall financing envelop and the use of funds in the IMF program; and, d) availability of other external financing (from bank shareholders or owners).

Banking sector recapitalization costs high under disorderly adjustment

We estimate banking sector recapitalization costs to be cUS\$20bn (36-53% of GDP). This would lead to deposit bail-in requirements of 12-13% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to c25%.

We estimate banking sector recapitalization costs to be cUS\$80bn (145-225% of GDP), should domestic banking sector Fx exposure to the BdL be restructured on the same terms as government debt. This would lead to deposit bail-in requirements of 49-56% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to an average of c100%, fully wiping them out.

Given the large deposit bail-in needs in these disorderly adjustments, and in light of the unstable socio-political situation, forcible currency conversions may be pursued by policy-makers. Converting Fx deposits in the banking sector at an unfavorable exchange rate (say the current USD peg rate), and subsequently devaluing the currency by 100%, is essentially equivalent to a 50% haircut on deposits. Higher inflation would further erode domestic purchasing power. Unanchored money demand and the lack of domestic confidence may however risk further currency overshooting.

In addition, we estimate that selective, forced, conversion of line items on the banking sector balance sheet at an unfavorable exchange rate (say the current exchange rate), and then devaluing the currency by an illustrative 100%, could improve the banking sector and BdL capital positions. We estimate that the banking sector and the BdL could make revaluation P&L gains of US\$29.1bn and of US\$17.4bn respectively in this selective conversion hypothetical scenario. This would involve forcible conversion at an unfavorable exchange rate of the banking sector Fx deposits as well as Fx exposure to the BdL, prior to an illustrative 100% devaluation.

March 2020 = key potential pressure point for bonds

We are concerned that principal payments beginning in March 2020 may prove too large for Lebanon, although political willingness remains a key uncertainty. After the November maturity, there are limited payments for three months, but March to June inclusive see around US\$3.4bn of principal and coupon payments on Eurobonds. If deposit withdrawal pressure is continuing, there is a risk authorities could halt payments at this stage. Whilst the market is broadly pricing some sort of credit event before 2022, 2020 bonds could still face substantial downside risks at current prices, in our view.

Market pricing seems optimistic to us

Lebanon has multiple hypothetical options available should they pursue a restructuring solution. We would expect such a situation to involve a combination of principal face-value cuts (given high debt stock), coupon reductions (for lower deficits), and maturity extensions (given pressure on Fx reserves in the near-term). We find that current 2021+ bond prices could be justified by assuming a 35% principal face-value cut, a 35% reduction in coupons, and a 5y maturity extension on each bond, assuming a 11% exit yield. We believe Lebanon may require larger cuts to make debt sustainable; market pricing seems optimistic to us.

Bonds need to move into the 30s before we can turn more constructive

With a 50% principal face-value cut, 50% coupon reduction, and 5y extension under a 12% exit yield, 2022+ bonds would fall to the low to mid-30s. Upside comes from softer restructuring requirements under external support, but realistic upside is not much more than 5pt vs. today in such a scenario.

In the EXD section, we also examine the impact of different bond coupons, ownership of bonds, and key bond and CDS terms.

Table 1: Potential recovery values under various hypothetical macro and restructuring assumptions

	Scenario 1	Scenario 1a	Scenario 2	Scenario 2a	Scenario 3	Scenario 3a	Scenario 4	Scenario 4a
	Disorderly	Disorderly + deval	Soft IMF program	Soft IMF program + deval	Market pricing	Market pricing + deval	Typical IMF program	Typical IMF program + deval
US\$bn, except where otherwise stated								
Face-value cut to total government debt (%)	78.4	71.6	30.0	30.0	35.0	35.0	50.0	50.0
New face-value of total government debt (US\$c)	21.6	28.4	70.0	70.0	65.0	65.0	50.0	50.0
Coupon cut (%)	-	-	-	-	35.0	35.0	50.0	50.0
Exit yield (%)	High	High	High	High	Medium	Medium	Medium	Medium
6.65% '24s bonds implied Net Present Value (NPV)	20	20	51	51	46	46	35	35
6.65% '30s bonds implied Net Present Value (NPV)	20	20	47	47	41	41	32	32
IMF (?)	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Devaluation size (%)	0	100	0	100	0	100	0	100
Government debt (% of GDP) - starting level	154.5	154.5	154.5	154.5	154.5	154.5	154.5	154.5
Domestic-currency debt (% of GDP)	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
Foreign-currency debt (% of GDP)	58.1	58.1	58.1	58.1	58.1	58.1	58.1	58.1
End of scenario government debt (% of GDP)	33.3	50.0	150.0	163.0	120.0	130.0	100.0	110.0
Ability to haircut only domestic debt (?)	No	No	Yes, but unlikely	Yes, but unlikely	Yes, but unlikely	Yes, but unlikely	Yes, but unlikely	Y., but unlikely
Bank recap costs (US\$bn), excluding BdL Fx CDs	20.8	19.1	6.5	4.7	7.9	6.2	12.2	10.5
% of GDP	36.4	52.6	11.3	13.0	13.8	17.0	21.4	28.8
Deposit bail-in (%) - all	12.3	13.1	3.8	3.2	4.7	4.2	7.2	7.2
Deposit bail-in (%) - only HNWI	24.7	26.2	7.6	6.5	9.4	8.4	14.5	14.4
Bank recap costs (US\$bn), including BdL Fx CDs	83.2	81.5	29.8	28.1	35.2	33.4	51.2	49.5
% of GDP	145.5	224.1	52.1	77.3	61.5	92.0	89.5	136.1
Deposit bail-in (%) - all	49.3	55.8	17.7	19.3	20.8	22.9	30.3	33.9
Deposit bail-in (%) - only HNWI	98.6	111.6	35.3	38.5	41.7	45.8	60.6	67.7
Additional provisioning costs (US\$bn)	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
% of current capital	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
memo:								
Banks revaluation P&L (100% deval)	-	9.1	-	9.1	-	9.1	-	9.1
Banks revaluation P&L (100% deval, select conversion)	-	29.1	-	29.1	-	29.1	-	29.1
BdL revaluation P&L (100% deval) - US\$bn	-	-24.8	-	-24.8	-	-24.8	-	-24.8
BdL revaluation P&L (100% deval, select conversion)	-	17.4	-	17.4	-	17.4	-	17.4
Nominal GDP (US\$bn)	57.2	36.3	57.2	36.3	57.2	36.3	57.2	36.3

Source: Haver, BdL, MoF, BofA Merrill Lynch Global Research. Banking sector recapitalization needs assume the Capital Adequacy Ratio (CAR) is to be brought back to the national regulatory requirement of 15%.

Provisioning costs are assumed to correspond to a 30% increase in NPLs on banking sector claims on resident and non-resident customers. We assume regulatory forbearance to allow gradual capital increase to meet higher provisioning needs. In scenario 1 and 1a, bond NPVs calculation assume coupon cut of the same magnitude as the face-value cut. Bank recap costs including banking sector Fx exposure to the BdL assume BdL foreign-currency exposure to banks is restructured under the same face-value cuts being applied to total government debt.

Political impasse keeps Fx reserves under pressure

De facto capital and deposit controls may be controlling the pace of decline in BdL Fx reserves. At the current pace of BdL Fx reserves loss, BdL Fx reserves would be depleted by end-1H20. This pace may slow down at the cost of a sharp halt to the economy. Still, damage done to depositor confidence may be long-lasting.

Current crisis episode may be both sustained and acute

Compared to previous crisis episodes in 2005 or 2006, Lebanon appears to be possibly facing an acute and sustained exogenous shock. Previous shocks were acute but proved temporary and, as such, did not have a lasting impact on depositor confidence. Also, they generally occurred against favourable starting economic conditions, unlike now.

Political deadlock continues

The political standoff continues, with institutions in limbo following the resignation of PM Hariri. The Iran-backed March 8 alliance appears to be insisting on a Cabinet of politically-affiliated experts, rather than the Cabinet of neutral technocrats requested by protestors, given vested interests. Protestors are thus likely to reject such a Cabinet.

The March 8 alliance, including the President's party, appeared to agree with PM Hariri's Future party some 10 days ago on the nomination of a nominally-independent figure (former Minister of Finance Safadi) that would lead a Cabinet of politically-affiliated experts and some political figures. His nomination was met with opposition from protestors. Former Minister of Finance Safadi subsequently withdrew his candidacy.

Political uncertainty is likely to linger for longer. The best case scenario would be political parties coalescing around an independent technocratic Cabinet that can garner international and domestic popular support. The opposition of the March 8 alliance to this possibility makes this scenario unlikely near-term. This is especially so in an environment where protests in Iraq and Iran, including against Iranian region-wide influence, keep the domestic stakes in Lebanon high. The worst case scenario would be for the appointment of a figure affiliated with the March 8 alliance at the PM post. This could be interpreted as a confrontational measure by protestors and which would materially weaken prospects for international support.

According to local press, the March 8 alliance proposal for a general amnesty law could be meant to reinvigorate its base, divide protestors, and provide a legal basis for exoneration of the political class against potential corruption allegation and charges.

Financial sector under severe stress

Mass protests and the lack of depositor confidence are impacting the banking sector. It is unclear if banks will remain open for a sustained period. After a two-week banking holiday over 18-31 October subsequent to the 17 October protests, banks reopened for a week (over 1-8 November). The Federation of Syndicates of Bank Employees subsequently called for an open strike in order to ensure a safe working environment in the light of restrictions imposed. The Association of Banks in Lebanon (ABL) has agreed with the Ministry of Interior on the provision of adequate security conditions around bank branches, and thus banks re-opened on Tuesday 19 November.

The ABL announced in a statement on 17 November joint measures to coordinate the de facto capital controls across the banking sector, in consultation with the Banque du Liban (BdL). The statement states that banks will lift restrictions on non-resident inflows into the banking sector. However, outflows will be restricted to urgent personal matters. No restrictions on domestic transfers (except if leading to dollarization) will be imposed. There are no limits on LL-deposit withdrawals (through the bank counter or cards at the ATM). However, the ABL states that a maximum deposit withdrawal limit of US\$1,000/week will be imposed on holders of Fx-denominated current account deposits.

Deposit withdrawal limits, capital controls contain so far deposit losses

BdL Governor Salame suggested US\$2bn in deposits were withdrawn during the crisis so far, the majority of which he suggested went under the mattress. These withdrawals may have been largely LL-denominated. This level of withdrawal is equivalent to 1% of the deposit base, which is smaller than the 3-5% drop in deposits observed in previous crisis episodes. While it likely reflects the restrictions imposed by banks, the withdrawals happened over a shorter period compared to previous crisis episodes. Weekly money supply data suggests that LL-denominated resident term deposits dropped by US\$1.4bn while resident Fx deposits increased by US\$0.2bn over 1-8 November. This suggests that the prior banking holiday held the deposit base stable.

The BdL has allowed banks to borrow Fx from it at a high 20% rate on the condition that borrowed funds not be transferred abroad. This suggests that most banks used their own Fx resources to try to satisfy most of customer Fx demand. This would be consistent with BdL foreign assets remaining flat over the second half of October.

BdL foreign assets declined subsequently by US\$0.8bn over the first two weeks of November to US\$37.1bn. Accounting for the US\$0.1bn increase in BdL Eurobond holdings to US\$3.5bn over the same period, BdL foreign assets, excluding Eurobonds, would have declined by US\$0.9bn. Bank deposits at the BdL dropped by US\$0.3bn, and BdL loans to the financial sector remained flat in the first half of November. This suggests that BdL may not have extended emergency LL-funding to banks under stress.

Time could be rapidly running out

At the current pace of BdL Fx reserves loss (US\$0.9bn in the one week of operations for the banking sector in November), BdL Fx reserves would be depleted by end-1H20.

While there were already strict banking sector restrictions in that week, banks may have allowed more outflows than they were prepared to service going forward. This could be due to them attempting to service a backlog of demand and restore some normalcy.

Assuming the current pace of Fx reserves loss slows down to half, we estimate BdL Fx reserves could last until end-2020. Even if one assumes the current pace of Fx reserves loss slows down by two-thirds, BdL Fx reserves could stand at US\$7.6bn by end-2020.

Table 2: BdL could run out of Fx reserves between June and December 2020 in the absence of any Fx inflows and without further slowdown of outflows

US\$bn	Current pace of loss		Half current pace of loss		Current pace		Half current pace		EXD maturities	EXD coupons	Interest on Fx CDs	Interest on Fx RRR	Int. on Fx excess deposits
	BdL foreign assets	BdL Fx reserves	BdL foreign assets	BdL Fx reserves	Deposit + CAD outflows	Deposit + CAD outflows							
Current	37.1	33.6	37.1	33.6	-	-	-	-	-	-	-	-	-
Nov-19	34.5	31.6	35.0	32.1	0.9	0.5	1.5	0.2	-	-	-	-	-
Dec-19	30.5	27.6	32.8	29.9	3.6	1.8	-	0.1	0.1	0.0	0.0	0.2	
Jan-20	26.6	23.7	30.7	27.8	3.6	1.8	-	0.0	0.1	0.0	0.0	0.2	
Feb-20	22.6	19.4	28.5	25.6	3.6	1.8	-	0.1	0.1	0.0	0.0	0.2	
Mar-20	17.3	14.4	25.0	22.1	3.6	1.8	1.2	0.1	0.1	0.0	0.0	0.2	
Apr-20	12.5	9.6	22.1	19.2	3.6	1.8	0.7	0.1	0.1	0.0	0.0	0.2	
May-20	8.0	5.1	19.4	16.5	3.6	1.8	-	0.5	0.1	0.0	0.0	0.2	
Jun-20	3.4	0.5	16.6	13.7	3.6	1.8	0.6	0.1	0.1	0.0	0.0	0.2	
Jul-20	-0.6	-3.5	14.4	11.5	3.6	1.8	-	0.0	0.1	0.0	0.0	0.2	
Aug-20	-4.6	-7.5	12.2	9.3	3.6	1.8	-	0.1	0.1	0.0	0.0	0.2	
Sep-20	-8.7	-11.6	9.9	7.0	3.6	1.8	-	0.1	0.1	0.0	0.0	0.2	
Oct-20	-12.8	-15.7	7.7	4.8	3.6	1.8	-	0.1	0.1	0.0	0.0	0.2	
Nov-20	-17.4	-20.3	5.0	2.1	3.6	1.8	-	0.5	0.1	0.0	0.0	0.2	
Dec-20	-21.7	-24.6	2.5	-0.4	3.6	1.8	-	0.3	0.1	0.0	0.0	0.2	

Source: Haver, ABL, BdL, Bloomberg, BofA Merrill Lynch Global Research. Deposit and current account deficit (CAD) outflows are assumed to be US\$0.6bn and US\$0.3bn at current pace, respectively. The sum of deposit and CAD outflows is calibrated to equal the US\$0.9bn loss observed over 1 week in November. Apart from holding an estimated US\$0.6bn of 2019 eurobonds, BdL holds US\$2.9bn in Eurobonds, which we understand could be 2028, 2031, 2033 and 2034 eurobonds. We understand that the BdL US\$1.15 bridge loan is recorded as an offset to the government deposit accounts at the BdL (Fx overdraft) and hence, we do not subtract it from BdL foreign assets. We estimate interest of 6.6% paid on the August 2019 outstanding stock US\$22.7bn of BdL Fx CDs held by banks. We estimate interest of 3-month Libor paid on US\$19.8bn of BdL Fx Reserve Requirements (RRRs) by banks (September 2019 data). We estimate interest of 5.94% paid on an estimated US\$41.8bn of excess Fx deposits held by banks (August and September 2019 data respectively). Our estimate of excess Fx deposits held by banks represents 60% of our calculated excess deposits held by banks at the BdL. For simplicity, we assume Fx interest on banks' exposure to BdL is paid monthly (instead of semi-annually), and that Fx interest is paid monthly at 3m libor to BdL Fx reserves.

Uncertainty remains on level of liquid BdL Fx reserves

Correcting for BdL's stated usable Fx reserves (US\$30bn, as BdL Governor Salame in his press conference on 11 November) would shorten the timeline by 1-2 months. In comparison, our US\$33.6bn starting level of Fx reserves in the table above subtracts from BdL foreign assets its holdings of eurobonds. This would thus include a portion of BdL's investment book, which BdL Governor Salame excluded from usable reserves. BdL's investment book, excluding direct holdings of eurobonds, increased by US\$2.8bn over July-September. As this coincided with a spike in 5-year CDS above 900bps, we speculate that BdL could have assumed repo agreements of domestic banks with international financial institutions in need of being unwound.

A portion of BdL Fx reserves loss may remain in the financial system

We estimate that US\$5bn of the potential BdL Fx reserves loss over the next 12 months could represent repayments to the domestic banking sector and thus remain within the Lebanese financial system. This is equivalent to c2months of potential BdL Fx reserves loss and could thus lengthen the timeline by a similar amount. The unlocking of these funds to banks could be of help to service customer Fx demand. Alternatively, they could boost the banks' liquid currency and deposits held at non-resident correspondent banks and non-resident central banks (which totaled US\$9.8bn as of September 2019).

The US\$5bn accounts for potential domestic bank holdings of 2020 eurobonds and Fx interest income on the estimated stock of Fx RRRs, Fx CDs and Fx excess deposits of banks at the BdL. Domestic banks could hold cUS\$0.7bn of the eurobonds maturing in 2020. This assumes the BdL does not hold any of these bonds, and that Bloomberg foreign holdings data is accurate. We simplify and estimate that the BdL pays interest of US\$0.4bn monthly (US\$4.3bn annually) to banks on their stock of Fx CDs, Fx RRRs and excess Fx deposits held at the BdL (although interest is likely paid semi-annually).

We estimate about US\$0.6bn of Fx CDs held at the BdL will mature in February 2020 and none prior to that. Fx CDs maturities start to increase from 2022, with US\$3.8bn maturing in 2022 and a peak of US\$4.9bn in 2023. On the assumption of cUS\$40bn in excess Fx deposits at the BdL and assuming an average tenor of 10 years, cUS\$4bn in excess Fx deposits could be maturing yearly. However, access to these foreign-currency bank assets held at the BdL would most likely require coordination with the BdL to minimize impact on BdL gross reserves, in our view. This also reflects the fact that BdL foreign-currency assets are smaller than its foreign-currency liabilities.

Banking sector withdrawal limits de facto tightened

We understand that the weekly maximum withdrawal limits set by the ABL have been de-facto further tightened to buy time. The imposed US\$1,000/week Fx-deposit withdrawal limit was broadly consistent with our calculations of the daily limit on Fx withdrawals (US\$228.4) consistent with our estimated Fx-deposit monthly maturity profile. We [estimated](#) US\$10.3bn in Fx deposits come due each month (US\$7.6bn from residents; US\$2.8bn from non-residents). The imposed weekly withdrawal limit could thus allow, in time, for maturing Fx-deposits to be fully withdrawn. This suggests that banking strains could increase rapidly in the event that withdrawals continue.

Banks could find difficulty raising capital in the current backdrop

BdL's Intermediate Circular 532 of 4 November 2019 requested domestic banks to increase Tier 1 capital by 20% (US\$3.7bn) through USD cash contributions from shareholders in two tranches. The first tranche of 10% (US\$1.9bn) should be completed by end-2019 and the second tranche of 10% (US\$1.9bn) should be completed by end-June 2020. It is unclear if banks can fully comply with the Circular in this backdrop.

Parallel rate gaining more use in economy

The emergence of a parallel market rate is likely to undermine the credibility of the USD peg anchor, should it persist. The volume of transactions on the black market is likely to be constrained for now by the difficulty to obtain Fx from the banking sector or other

sources to re-sell USD. International money transfer entities can only provide LL to beneficiaries, for instance.

3 major macro challenges for Lebanon

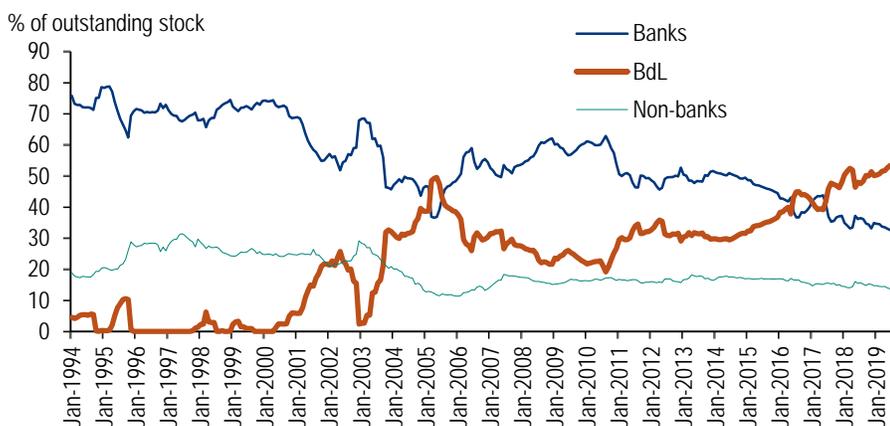
Lebanon faces three, related, macro challenges:

- 1) **Unsustainable government debt dynamics.** This results from a mix of a large debt stock, high fiscal deficit, low real growth and current fiscal policies.

Domestic rates have been repressed by BdL purchases of T-bills and T-bonds in the primary market. BdL holds c52% of the outstanding domestic debt as of August 2019, up from c20% in September 2010.

We calculate that the loss of external market access will lead to a drop in the weighted average cost of external funding for the sovereign from 6.6% in 2018 to 6.1% in 2019. This is because the BdL repaid the two Eurobond maturities so far this year, replacing them with a US\$1.15 bridge loan to the MoF at 0%.

Chart 1: BdL has been increasing its purchases of domestic debt



Source: Haver, BofA Merrill Lynch Global Research

Real GDP growth is unlikely to recover for now unless there is a political stability dividend. This would be associated with international support (including from the CEDRE donor process) for economic reforms.

Authorities were able to bring down domestic interest costs in the past. At the 2002 Paris II conference, in addition to the external support from donors, BdL and domestic banks participated in debt management operations. BdL's scheme involved debt cancellation, exchange and rollovers which decreased public debt by 10ppt and lowered debt service. Domestic banks subscribed to US\$3.6bn in 2-year non-interest bearing LL-denominated securities, of which 85% was contributed through cash or short-dated securities.

- 2) **Unsustainable external debt dynamics.** This results from a large current account deficit, a likely overvalued currency, high short-term external debt and a reversal of non-resident deposit flows.

The sudden stop could persist given the political standoff. It may remain in place even after a resolution in the absence of reforms and support. We discussed [here](#) that the country's funding model has run out of steam. Even under a soft landing scenario, given the low manufacturing base of the country, it could take years of austerity to reduce the current account deficit to levels less challenging to finance, in our view. Without a return of non-resident deposits, this would require international support to bridge the funding gap.

The external funding constraint could be the most significant and binding constraint facing Lebanon. The loss of external market access is currently forcing a sovereign external debt deleveraging. If the sudden stop of BoP funding sources persists and if BdL Fx reserves dwindle, a large Fx devaluation may become the only realistic option to close the external funding gap. The cascade of events implied by a sharp real effective exchange rate adjustment would imply a hard landing involving a deep economic recession, a government debt restructuring, bank recapitalization needs and deposit bail-ins, in our view.

Given BdL deficit monetization over the years, the fiscal constraint is less binding than the external funding one, in our view. However, in this environment of weak Lira money demand, BdL liquidity injection to fund the government fiscal deficit could accentuate the external constraint and Fx demand. This is likely offset for now by dollarization constraints in the banking sector, although the same does not apply in the parallel market.

- 3) **Erosion of the BdL balance sheet** due to quasi-fiscal and financial engineering operations. Despite their cost on the BdL, financial engineering operations cannot be successful unless banks are able to attract non-resident Fx deposits. This capability is compromised at the current juncture.

Willingness and ability to pay to come under pressure

Economic authorities have historically displayed a strong willingness to pay. This may suggest that a restructuring decision may be delayed until it becomes unavoidable. The extraordinary measures taken by the BdL and banks are buying time at the cost of a contraction in economic activity. Outgoing Minister of Finance Khalil said recently that Eurobond repayments may be delayed. However, he subsequently denied the comments.

There are disincentives for authorities to engage in a voluntary debt restructuring at this stage: a) the social implications of such a restructuring at a time of major protests as it may involve deposit bail-ins; b) the long-lasting implications on the ability to attract non-resident inflows; c) eurobond repayments (cUS\$2.5bn annually) are a small part of external funding requirements (cUS\$13bn current account deficit and cUS\$50bn in short-term non-resident deposits); and, d) authorities may want to wait for a new Cabinet that could either engage the international community or has the official authority to take the restructuring decision instead. Indeed, BdL Governor Salame suggested that the BdL does not have the authority to impose deposit haircuts, and he thought that such a law would not pass in Parliament.

All eyes on November 2019 maturity

BdL Governor Salame reiterated that the BdL would repay the 28 November 2019 US\$1.5bn Eurobond maturity. We estimate foreigners hold US\$0.5bn of that bond, as per Bloomberg holdings data. We assume the US\$0.6bn increase in the BdL portfolio to US\$3.5bn at mid-November, from US\$2.9bn at end-July, reflects buying of the November 2019 Eurobond. If this is correct, then domestic banks may be holding the remaining US\$0.4bn. As such, should BdL repay the November 2019 maturity, it would only need to disburse cUS\$1bn to repay the principal from its Fx reserves (part of which would remain within the domestic financial system). There would also be a need to service coupon payments, totaling US\$0.5bn over the month of November 2019.

An early restructuring may allow the BdL to retain enough Fx reserves to defend whatever monetary arrangement comes next. If BdL Fx reserves drop markedly, then conserving Fx through restructuring Eurobonds may become an appealing decision. Indeed, if authorities have decided to restructure already (say sometime in 1Q20 ahead of 2020 maturities), then repaying the November 2019 maturity would make little sense except if it helps buy time to prepare for the consequences of such a step.

Peer restructuring lessons

Lessons from Cyprus

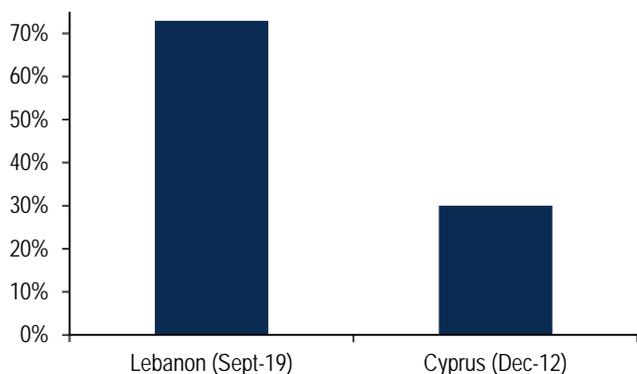
The Cyprus crisis in 2012-13 could provide a template for implications of a hard landing, given some economic similarities with Lebanon. Cyprus had an oversized banking sector funded partly non-resident deposits, with high exposure to the domestic real estate sector and concentrated exposure to Greece. The latter incurred heavy losses due to the Greek restructuring, resulting in recapitalization needs. The government also had large fiscal deficits and high public sector debt (86% of GDP in 2012). The government lost market access in mid-2011 (but was able to regain international market access 16 months after the crisis).

The balance sheet of the sovereign and banks were highly intertwined. Full bank recapitalization with public funds would have exacerbated poor public debt dynamics. Broad burden sharing was thus necessary and achieved through a bail-in of uninsured depositors. Payment restrictions and capital controls were imposed to safeguard financial stability. The downsizing of the financial services sector resulted in a need to adapt the country's business model. Significant fiscal consolidation was implemented as part of an IMF EFF program combined with European Stability Mechanism (ESM) financing, targeting a medium-term government debt level of c100% of GDP.

Bank recapitalization costs were initially estimated at 50% of GDP, among the highest in the world. The bail-in of depositors distinguished between: a) entities (only the largest two Cypriot banks were involved); and, b) insured and non-insured deposits (deposits above €100,000 were state insured and were left untouched).

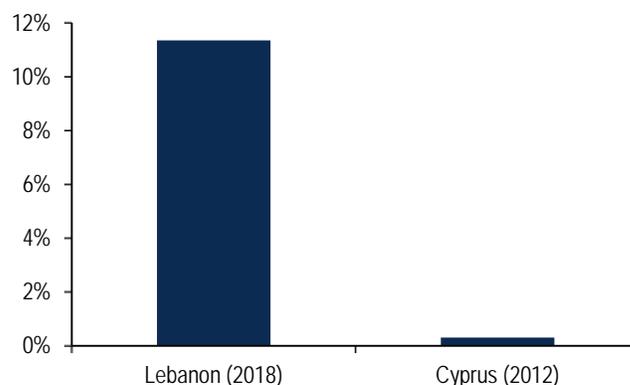
The Cyprus banking crisis included effectively the closure and liquidation of Laiki Bank, the restructuring of Bank of Cyprus, and the recapitalization of Cooperative Savings Bank. The liquidation of Laiki Bank in March 2013 involved the moving of loan facilities, as well as state-guaranteed deposits up to €100,000 to Bank of Cyprus, but all deposits in excess of €100,000 were included in the liquidation process. The recapitalization of Bank of Cyprus in August 2013 involved equity conversion of €3.8bn representing 47.5% of unsecured deposits (i.e. a deposit bail-in of 47.5% of uninsured deposits), with depositors receiving shares in proportion to deposits lost.

Chart 2: Deposit dollarization (% of total deposits)



Source: Haver, BofA Merrill Lynch Global Research

Chart 3: Lebanon has much higher inward remittances (% of GDP)



Source: Haver, BofA Merrill Lynch Global Research

Lessons from Barbados

Barbados is an example of a highly indebted country with large twin deficits, where an IMF program kept the peg in place but restructuring of both domestic and external debt took place. An interesting read-through for Lebanon is that negative equity for the central bank was allowed within the program, with a medium-term plan for recapitalization. However, a key difference is that the size of the external funding requirement for Barbados is smaller than that of Lebanon, which may impact on the ability to maintain the peg.

Into its recent restructuring, Barbados showed some macro similarities with Lebanon with very high levels of public debt (158% of GDP as of FY17/18) and substantial current account deficits in previous years (an average of 9.5% of GDP over 2011-14). However, unlike Lebanon, the majority of debt was local (over 80% of total debt), whilst Fx reserves were perilously low (5–6 weeks of coverage) before authorities stopped paying interest. It is also a much smaller economy: Barbados had a current account deficit of US\$0.2bn in 2017, in the year prior to restructuring, versus a current account deficit of cUS\$13bn for Lebanon this year.

In June 2018, the new PM announced the country would not pay coupons. The country reached an US\$0.3bn 4-year IMF EFF program agreement in October 2018, representing 220% of quota. The IMF program targeted 60% debt to GDP, but over a long time-frame (FY33/34 in this case). In the initial years, the IMF envisioned debt still over 100% of GDP, targeting 80% by FY27/28.

A deal was reached with domestic creditors quickly (maturity extensions, haircuts, and reduced interest). This operation reduced debt by around 30ppt. In the process, domestic banks saw capital ratios fall, but remain above regulatory minimums. The central bank saw its equity turn negative in the process, with authorities developing plans for recapitalization.

After negotiations between bondholders ('19, '21, '22, '35 maturities), loan holders, and authorities for over a year, a bondholder meeting has been convened for later this month. At the meeting, holders of each bond will vote on an extraordinary resolution which, if passed by 75%, would force all holders into an exchange. Old bonds would be exchanged for: a new 2029 maturity bond + a smaller amount of the same new 2029 bonds (PDI bonds) + a cash consideration (both of which partly compensate for past due interest). According to the Ministry of Finance, the agreement in principal includes a 26.3% reduction in the aggregate sum of the original principal and past due interest.

Lessons from Mozambique

Mozambique is an example of a highly indebted country with large external funding needs, but where debt restructuring did not involve face-value cuts (only maturity extensions and coupon reductions). The lack of face-value cuts likely reflects the medium-term potential from gas exploration that could positively impact the country's future credit-worthiness. Lebanon's hydrocarbon potential is still only nascent.

In 2016, Mozambique growth fell sharply hurt by factors such as lower commodity prices and unfavorable weather conditions. Furthermore, the country's IMF program was suspended upon the disclosure of extra borrowings. The lack of donor support, high fiscal deficits, and a large weakening in the currency eventually led the government to suspend external bond payments in January 2017.

Like Lebanon, Mozambique had (and still has) exceptionally high levels of debt; public sector debt was 129% of GDP in 2016. It has also faced very large current account deficits (39% of GDP in 2016), reflecting the country's development of gas fields which are critical for the future of the economy. Excluding these megaprojects, the deficit was still 21%. However, the country benefits from large FDI inflows related to these projects (28% of GDP in 2016). Also, with the gas fields coming on-line in future years, investors had reasons to be more confident about the country's ability to repay the principal.

In 2019, an agreement was eventually reached with bondholders. For every US\$1,000 of existing notes (the MOZAM 10.5% '23s), investors received: a consent fee of US\$11.01 + an exchange fee of at US\$40.1 + US\$1,238.77 of new notes (MOZAM 5% '31s) reflecting the previous principal and past due interest. Whilst there was no nominal haircut, investors accepted a maturity extension (sink starts 2028) and a coupon reduction (5% until 2023, 9% after).

Like Barbados, if 75% of holders supported the deal, all bonds were exchanged. Eventually, 99.5% of bondholders accepted the proposal.

Lessons from Jamaica

Jamaica is a highly-indebted country with mostly domestically-held debt. Its 2010 restructuring involved solely some domestic debt, as external debt terms were not seen as problematic. The 2010 restructuring was carefully operationally designed to minimize the impact on the financial sector and lower the fiscal strains. However, the debt stock remained high and vulnerable, no material fiscal consolidation took place apart from lower interest payments, and the gained fiscal space gave room to pressures for higher public sector wages. Another IMF program and domestic debt restructuring ensued in 2013.

The January 2010 restructuring reflects long-standing struggles with high public sector debt and low real GDP growth (partly due to exogenous natural disasters shocks). A financial sector bailout in the late 1990s led to an increase in government debt by 27 % of GDP. By 2009, government debt stood at 140% of GDP, of which c70% was held domestically. The Global Financial Crisis strained activity, banking sector profitability and external funding sources. Authorities intervened in the Fx market and implemented large policy rate hikes to lean against rapid currency depreciation.

The Jamaica Debt Exchange (JDX) launched in January 2010 focused on an orderly rescheduling of domestic debt through a reduction in coupon rates and an extension of maturities. While par-neutral, the debt exchange was meant to a) reduce interest payments; b) strengthen growth potential through higher public sector investment and lower private sector borrowing costs; c) be part of a comprehensive medium-term reform effort; d) increase stakeholder buy-in through consultations and incentives (such as linking an IMF program to a debt exchange); and, e) minimize impact on financial institutions through regulatory forbearance (gradually higher bank capital rules) and through the establishment of the IMF-funded Financial System Support Fund to provide liquidity support to eligible domestic financial institutions impacted by the exchange.

The debt exchange targeted US\$7.8bn (65% of GDP) in local currency- and USD-denominated debt securities with average interest rate of 19% and 9% respectively. In comparison, the initial yields on the new exchanged in local currency- and USD-denominated debt securities were 12.5% and 7% respectively. The debt exchange generated savings of 3.5% of GDP, lengthened the average maturity of domestic debt from 4.7 years to 8.3 years and resulted in NPV losses of 15–20%. The IMF approved a 24-month US\$1.27bn SBA program in February 2010, which catalyzed multilateral assistance pledges of c20% of GDP.

Another domestic debt restructuring National Debt Exchange (NDX) was launched in February 2013 and was a prior action to an IMF EFF program. The previous IMF program had gone off-track and Jamaica had lost international market access in 2011. The NDX was designed to target a debt level of 95% of GDP by 2020 and achieved participation rate of close to 100%. Similar to the JDX, the NDX included a voluntary rolling of domestic debt securities into instruments with longer maturities (3-10 years) and lower coupon rates (75-500bps). The first leg of the exchange included only domestically issued and held bonds and the second leg was a private exchange with eight large institutional holders of domestic debt. A precautionary IMF SBA program was subsequently agreed to in 2016. The programs restored fiscal and external sustainability with a primary surplus of 7.6% of GDP delivered over 6 years and two different administrations. Public debt has dropped below 100% of GDP, from a peak of 147% of GDP in 2013.

Lessons from Iceland

The Icelandic banking sector collapse could provide some insight into macro stabilization policies and bank resolution mechanisms. In effect, IMF exceptional access was granted, capital controls were imposed and remained in place for nearly a decade, while only domestic bank operations were bailed out. However, major differences with

Lebanon include the lack of fiscal space in Lebanon and the fact that non-resident claims on Lebanese banks consist mainly of deposits by Lebanese expatriates.

Following privatization of the banking sector, bank assets grew from c100% of GDP in 2003 to a peak of 900% of GDP (US\$155bn) in 2018. This growth was helped by implicit and explicit government guarantees, and funded initially by aggressive foreign borrowing and later by international deposit collection. Iceland's NIIP deteriorated from -c50% of GDP in 2000 to over -c130% of GDP in 2008.

After liquidity drying up due to the Global Financial Crisis made it difficult for an Icelandic bank to repay a loan, the government took over 75% of the bank's equity in September 2018. The subsequent sudden stop of financing and capital flight led to the failure of the entire banking system within a week, sparking mass protests and eventually leading to the resignation of the Cabinet. The crisis was marked by a sharp collapse of the exchange rate, and foreign currency was severely rationed to ensure payments for priority imports.

The IMF Executive Board approved a 2-year SBA program of US\$2.1bn (18% of GDP) at 1,190% of quota in November 2008, just over a month from the start of the IMF staff mission visit. Half the funds were disbursed upfront, and this helped catalyze rapid regional and international external support (Nordic countries and Poland).

Capital controls, imposed originally due to the collapse of the foreign exchange market, were formalized in the IMF program with no pre-defined timeline for their removal, given the risks of material Fx drains. The krona had declined by over 50% in the 12-month period preceding the formal adoption of capital controls in November 2008. Further sharp currency depreciation would have likely led to further major insolvencies. The currency stabilized afterwards but capital controls were only eventually gradually lifted over 2016-17. This was supported by a number of stability contributions to the government totaling c20% of GDP that ensured that the subsequent Fx outflows reflecting the payout of krona-denominated domestic asset recoveries and dividends to foreign owners would not drain Fx reserves.

Real GDP declined by a cumulative 10% over 2009-10. To offset the deep recession, the fiscal deficit was allowed to spike from near balance before the crisis to a deficit of c14% of GDP in 2009, reflecting automatic stabilizers and the use of the pre-existing fiscal space of the government. Fiscal adjustment was deferred and implemented from the second year of the program, after the initial shock started to dissipate. Broad and strong political commitment to reforms, as well as the presence of social welfare system, made the adjustment possible. General government gross debt surged from 27% of GDP in 2007 to 92% of GDP in 2011 but was down to 38% of GDP in 2018.

Bank recapitalization costs were estimated initially at a large c75% of GDP, but recoveries eventually exceeded direct fiscal costs, according to the IMF. Authorities split failed banks' domestic operations from their larger foreign operations. This allowed focus on sheltering the domestic economy, on maximizing asset recovery and on pursuing the maximum feasible bail-in. As such, the domestic operations of the banking system were bailed out and an Emergency Act was passed to give ex-post priority in the capital structure to deposits ahead of other unsecured claims. A debt moratorium was imposed on the foreign operations of failed banks, and resolution committees were put in place. The government took partial ownership of the new banks, in proportion to the amount of refinancing (equity injections and subordinated loans totaling c12% of GDP) that it had provided.

Table 3: Lebanon macro fundamentals comparison to a number of restructuring peer countries on the eve of their crisis year

	Lebanon (2019)	Barbados (2017)	Jamaica (2009)	Cyprus (2012)	Mozambique (2016)	Iceland (2007)
Nominal GDP (US\$bn)	57.2	5.0	12.1	25.1	10.9	21.5
Real GDP growth (%yoy)	-0.4	0.5	-3.4	-2.9	3.8	9.4
CPI inflation (%)	2.0	4.4	9.6	3.1	19.9	5.1
Fiscal balance (% of GDP)	-7.6	-4.3	-11.1	-5.6	-6.0	4.9
Primary balance (% of GDP)	1.5	3.3	6.2	-2.9	-3.3	5.1
Gross government debt (% of GDP)	154.5	132.8	140.0	121.9	128.3	29.3
Domestic government debt (% of GDP)	96.3	106.0	71.2	79.5	24.6	16.0
External government debt (% of GDP)	58.1	26.8	68.8	42.4	103.7	13.3
Current account balance (% of GDP)	-26.4	-3.8	-11.0	-6.0	-39.0	-13.8
Gross external debt (% of GDP)	195.7	41.4	69.1	448.5	167.3	605.9
Fx reserves, excluding gold (% of GDP)	57.6	7.7	17.1	1.8	18.6	12.0
Bank deposits (% of GDP)	325.3	109.2	40.7	221.2	48.1	86.0
10-year average	2009-2018	2007-2016	1999-2008	2002-2011	2006-2015	1997-2006
Real GDP growth (%yoy)	2.9	-0.2	1.3	2.9	7.3	4.7
CPI inflation (%)	2.9	4.0	10.7	2.6	7.6	3.9
Fiscal balance (% of GDP)	-8.1	-7.6	-4.6	-2.9	-4.6	0.4
Primary balance (% of GDP)	1.2	-1.2	8.2	-0.7	-3.8	2.0
Gross government debt (% of GDP)	140.6	117.6	112.7	101.4	-	37.7
Current account balance (% of GDP)	-23.2	-7.3	-9.1	-7.1	-24.6	-8.4
Fx reserves (% of GDP)	74.8	15.8	15.2	13.8	16.3	5.2
Bank deposits (% of GDP)	302.9	105.9	39.3	195.8	30.0	55.5

Source: Haver, IMF, BofA Merrill Lynch Global Research

IMF program no bailout

The IMF assessment of overvalued exchange rate, unsustainable external debt and unsustainable government debt under current policies suggests tough conditionality to restore sustainability and justify funding. At the current juncture, an IMF program would need to be grounded in exceptional access limits given large external funding requirements. Staff assessment would thus imply the need for devaluation, debt restructuring and fiscal consolidation, in our view.

An IMF program in a more normalized environment may not require exceptional access (in the presence of other international financiers), as we [estimated](#) an annual external funding gap of cUS\$5.5bn (9.5% of GDP) prior to the political crisis.

Alternatively, Lebanon's geopolitical importance could translate into support from IMF shareholders on less stringent program terms in the event of a reform-minded technocratic Cabinet benefiting from popular support and material regional financing, in our view. A prolonged crisis and much lower BdL Fx reserves position would however materially decrease this possibility.

Given Lebanon's likely structural and protracted BoP issues, the IMF's main program tool for medium-term support would be the Extended Fund Facility (EFF). Stand-By Arrangements (SBAs) address instead short-term BoP problems. The size of borrowing under an IMF program is guided by a country's financing needs, capacity to repay and track record of use of IMF resources. Normal access provides for borrowing of up to 145% of country's IMF quota annually and a cumulative limit over the life of the program of 435% of quota.

Exceptional access would likely be needed

While an IMF program catalyzes additional financing resources, the scale of the issues in Lebanon suggests that normal access borrowing falls short of its financing needs. Lebanon's quota in the IMF is SDR0.6bn (US\$0.9bn: 1.5% of GDP). This would suggest that normal access under an IMF EFF program would provide for borrowing of up to US\$3.8bn (6.6% of GDP) over 3 years (i.e. US\$1.3bn or 2.2% of GDP annually). Under normal access, the sudden stop to private sector funding would suggest a financing gap even if the current account deficit shrinks due to the ongoing recession.

There are four conditions to meet in regards to criteria for exceptional access: a) BoP pressures that cannot be met with IMF financing within normal limits; b) a high probability that debt will remain sustainable; c) good prospects of regaining access to private markets within the time Fund resources would be outstanding; and, d) a reasonable chance of success for the IMF program, including not only adjustment plans but also institutional and political capacity to deliver that adjustment.

Given the four conditions above, the credibility, reform credentials and political orientations of the next Cabinet in Lebanon would be paramount. Given that the IMF staff has judged ex-ante that Lebanon's government debt is unsustainable under current policies, financing from other sources than the IMF (which would include financing obtained through debt restructuring) would be needed to improve debt sustainability and enhance safeguards for Fund resources.

Some examples of IMF exceptional access programs are Argentina's 3-year US\$50bn SBA (1,110% of quota) in June 2018, Iceland's US\$2.1bn (18% of GDP) 2-year SBA program at 1,190% of quota in 2008, Brazil's 15-month SBA at 740% of quota in September 2002 and Turkey's December 1999 arrangement at 300% of quota.

No imminent financial support

We expect no financial support to Lebanon under the current caretaker government. Local press reports the international community is reluctant to negotiate financial support before a) the formation of a technocratic Cabinet that would restore public order; and, b) the adoption of a macro stabilization and structural adjustment IMF

program. France is looking to organize an international support forum in coming weeks, on the condition that the future Cabinet commits to reforms. We think any Gulf Cooperation Council (GCC) support to a forthcoming Cabinet will likely be tied to its political orientations and to the existence of credible reforms.

Hurdles for IMF program mostly political and also depend on macro alternatives

The hurdles for an IMF program are: a) political, as the March 8 Alliance may calculate it could survive the ongoing crisis without surrendering power; and, b) economic. On the latter, authorities' rational choice would be to prefer an orderly adjustment over the alternative of a chaotic disorderly adjustment. We note that an IMF EPCA was approved in May 2007, but March 8 Alliance Cabinet members had resigned in November 2016.

Contours of a possible IMF program

An IMF program is likely to have to focus on macro stabilization and unwinding of years of accumulated twin imbalances. Given the scale of the imbalances, a follow-up program could be necessary, provided that the reform track record is encouraging.

Major uncertain parameters of an IMF program include: a) nature of and financing assurances from additional multilateral, international and regional partners; b) ability to implement austerity; c) ability and willingness to avoid a devaluation; d) future of country's funding model as a banking sector hub; and, e) the extent of burden sharing between bondholders, depositors and other creditors.

We estimate a total combined IMF, international and GCC support package would need to be around US\$26.4bn (46% of GDP) over three years. We estimate an IMF program over three years would need to be around US\$9.2bn (16% of GDP; 1,061% of quota). This level of exceptional access is similar to exceptional access IMF programs in Argentina or Iceland. The program would catalyze further US\$11.5bn in international and other multilateral support, and US\$5.7bn in GCC support. We calibrate the international support to be the equivalent of the CEDRE donor conference pledges, and the GCC potential support to be similar in size to other GCC regional support packages.

We assume an annual external financing need of US\$8-9bn over the next three years. This assumes a 30-35% contraction in imports (calibrated from the Turkey and Iceland crisis), continued capital controls, the restructuring of external debt payments.

Table 4: Hypothetical financing envelop of a potential typical IMF program

Program financing parameters	
Number of years	3
Lebanon IMF quota (US\$bn)	0.9
IMF share in total financing package (%)	35
CEDRE funds (US\$bn) – assumed equivalent to or converted to international support	11.5
Annual external financing need / sources (US\$bn)	8.8
% of GDP	15.4
IMF financing	3.1
% of GDP	5.4
% of annual IMF quota	353.6
International financing	3.8
GCC financing	1.9
Total external financing need / sources (US\$bn)	26.4
% of GDP	46.1
IMF financing	9.2
% of GDP	16.1
% of IMF quota	1,060.8
International financing	11.5
GCC financing	5.7
Memo:	
GCC 2018 support to Bahrain (US\$bn)	10.0
GCC 2018 support to Jordan (US\$bn)	2.5
GCC 2011 support to Morocco (US\$bn)	5.0

Source: IMF, BofA Merrill Lynch Global Research

Some IMF program parameters clear, likely to be agreed upon with authorities

Some measures could be agreed upon between the IMF and authorities, in our view.

Governance and social safety net measures likely

We would also expect anti-corruption, tax evasion and social safety net measures to be part of medium-term structural reform efforts.

BdL to maintain negative equity for now

We would expect the BdL to be able to retain negative equity (which could officially arise in the case of a devaluation due to its negative net foreign-currency position), provided there is a medium-term framework for recapitalization. The IMF Barbados program allowed for this. Also, the latest IMF article IV recommended a gradual BdL step-back from quasi-fiscal operations and strengthening of its balance sheet.

Regulatory forbearance likely

We would expect regulatory forbearance to allow for banking sector consolidation after expected losses and other calls on capital. The banking sector Non-Performing Loans (NPLs) could spike sharply, and we would expect recognition and provisioning costs to be incurred only gradually. A 30% increase in NPLs on the US\$54.1bn of total stock of banking sector claims on resident and non-resident customers would lead to NPLs of cUS\$16bn (c80% of the current US\$20.6bn of banking sector capital). Banking sector claims on resident customers stood at US\$33.1bn (Fx-claims) and at US\$14.3bn (LL-claims), while the banking claims on non-resident customers stood at US\$4.9bn (Fx-claims) and at US\$1.7bn (LL-claims) in September 2019.

Capital controls to persist

Capital controls are likely to be needed for a sustained period of time to stabilize lira demand, minimize external funding requirements and prevent the leakage of external support. Official financing could help directly provide for essential imports.

Government debt restructuring on the cards

Government debt restructuring is likely to be needed and is likely to involve eurobonds given the likely increasing precarious Fx reserves position, in our view. The minimum face-value cut to total government debt to allow for IMF program borrowing on the scale needed annually (US\$8.8bn) would be 30%. A deeper face-value cut is almost certainly likely needed as it would otherwise not achieve much in terms of reducing imbalances, even as government debt is allowed to peak early in the program.

We estimate a 10-25% face-value cuts to government debt would not lead banks to require additional capital as their capital ratios would remain around 15% (minimum national regulatory capital adequacy ratio) or 10.5% (Basel III requirement). The estimates are similar under no-devaluation and devaluation scenarios. This is due to our assumption that banks would be allowed to convert into capital the revaluation P&L gains arising from an Fx devaluation due to their net positive foreign-currency position.

Although no face-value cuts and simple extension of debt maturities appears appealing as it would not imply bank recapitalization costs, it would almost certainly lead to much higher and unsustainably elevated government debt levels, in our view.

Coupon cuts are likely in a potential restructuring as interest payments represent c30% of government expenditures and close to 50% of government revenues.

Banks' Fx exposure to BdL difficult to tackle in short-term

Domestic banks' Fx exposure to the BdL is unlikely to be restructured under an IMF program, as it would sharply increase the banking sector recapitalization costs and hence any deposit bail-in requirements.

Sharp primary fiscal adjustment needed

We would expect the primary fiscal balance target set in the IMF to be c4.6% of GDP, in line with the IMF target in its adjustment scenario in its latest Article IV. This is not dissimilar to the 2020 budget target.

Gross fiscal financing needs have been elevated, and averaged 32.5% of GDP over the past 4 years. Assuming debt maturity extensions and coupon cuts, and an improved primary balance, gross fiscal financing needs could drop materially going forward. The BdL financed three-fourth of the 2018 fiscal deficit, according to the IMF, but is likely to have to retrench from deficit monetization under an IMF program.

Should the fiscal adjustment be front-loaded successfully, IMF program-related disbursements need not subsequently be fully directed for budget support and could instead be used to support BdL Fx reserves or finance bank recapitalization costs. For simplicity and to err on the conservative side, we assumed all IMF program disbursements would lead to government debt. The latter could use the funds to acquire equity in the domestic banking sector in support of recapitalization needs.

The IMF is likely to aim for market access and declining public debt at program exit.

Table 5: Gross fiscal financing requirements

US\$bn	2016	2017	2018	2019F	2020F	2021F	2022F	2023F
Gross fiscal financing needs	16.3	19.4	18.3	15.5	-	-	-	-
% of GDP	32.3	36.8	33.5	27.2	-	-	-	-
Primary balance	0.0	1.4	-0.6	0.9	-	-	-	-
LL-interest payments	3.0	3.1	3.0	3.0	3.0	2.6	2.3	1.9
Fx-interest payments	1.7	1.8	2.0	2.1	1.9	1.8	1.7	1.5
LL-debt amortizations	9.0	12.9	10.0	8.3	7.3	5.6	5.7	5.9
Fx-debt amortizations	2.6	3.0	2.6	2.9	2.7	2.3	2.2	1.7

Source: Haver, MoF, BofA Merrill Lynch Global Research. 2019F primary balance reflects year-to-July annualized figures and does not take into account any domestic arrears which would need to be repaid over the duration of an IMF program.

Viability of USD peg and country's funding model to come to question

We expect disagreements between authorities and the IMF in regards to the desirability of maintaining the USD peg and country's funding model unchanged. However, the longer the political impasse persists, the more damaging the impact on depositor confidence and the more untenable opposing devaluation would become, in our view. The likely continued need for capital controls erodes the ability of the country to maintain its attractiveness as a banking hub, in our view.

The high deposit dollarization rate (c70% in total, and c90% for non-residents) could suggest generally low domestic confidence in the USD peg, in our view. The large current account deficits (c25% of GDP), large (50-66%) Real Effective Exchange Rate (REER) misalignment according to IMF models, the high external financing needs and the external funding strains suggests a need for adjustment. Such an adjustment could thus possibly happen through a combination of external and internal devaluation.

An opposing and more cautious view would be to keep the USD peg unchanged and to attempt to preserve the country's banking hub position. The export base is underdeveloped due to structural reasons (cUS\$4bn exports versus US\$19bn in imports), scope for import substitution is low near-term, and little gains could likely thus be made under a devaluation. The adjustment would need to rely solely on fiscal adjustment, but the size of the internal adjustment is likely socio-politically implausible and current mass protests may further make fiscal austerity challenging to implement.

An argument could be made that a devaluation could be counter-productive in the current backdrop of political uncertainty and mass protests. Private sector expectations and money demand are likely unanchored. A devaluation could thus lead to major overshooting of fair value and a very sharp increase in inflation. This may argue for an appropriate sequencing of reforms and the need to stabilize confidence.

Recovery value: low; IMF could help avoid worst outcome

In the below, we analyze at first government debt dynamics in isolation, i.e. without an IMF program and related borrowing. This helps us discern vulnerabilities to a range of shocks. The Debt Sustainability Analysis (DSA) analysis suggests that government debt dynamics was already unsustainable prior to the crisis.

We then discuss a disorderly adjustment scenario, and discuss possible scenarios for restructuring under an IMF program and analyze potential associated recovery values. In most scenarios, our work suggests that recovery value is likely to be low, but an IMF program is likely to improve recovery value compared to disorderly scenarios without it.

Government debt is unsustainable under current policies

Our debt sustainability analysis suggests government debt is unsustainable under current economic policies. We estimate government debt to stand at 154.5% of GDP at end-2019, and to increase to 174.8% of GDP by 2025. Gross fiscal financing needs would be increasing at a time where funding sources are scarce. The debt-stabilizing primary balance under current macro conditions would be 6.8% of GDP and difficult to achieve. A recession (-0.4%) is likely this year. A sharper slowdown is likely to be associated with higher inflation, in our view. We pencil in a primary surplus of 1.5% of GDP and a fiscal deficit of 7.6% of GDP under the assumption of no near-term repayment of existing arrears and in line with annualized 7m19 fiscal outturns.

Legislative functions have been halted since the protests started. However, a legal precedent is allowing parliamentary commissions to work, including on examining the [2020 budget](#). Until it can be voted by parliament, the 1/12th rule applies.

Room to maneuver is tight

High real interest rates derail government debt path

The government debt's projected path is highly sensitive to a range of shocks. Should maturing government debt be refinanced at current market rates, broadly in line with the IMF-defined interest rate shock scenario (a minimum increase in the average real interest rate of 200bps), government debt would increase to 196.2% of GDP by 2025. The debt-stabilizing primary balance under a scenario of higher real interest rates would increase to 7.6% of GDP. (See column "Higher real interest rate" in table below).

Higher growth or fiscal consolidation not enough in isolation

Higher medium-term real GDP growth or higher medium-term primary balance are not sufficient in isolation to bring down the government debt-to-GDP ratio. (See respective columns "Higher MT growth" and "Higher MT primary balance" in table below). These scenarios assume medium-term real GDP growth would rebound to the 10-year average of 2.9%, or that the primary balance would average 4.7% of GDP, respectively. Under these scenarios, government debt-to-GDP would remain at current levels. However, the loss of international market access and shrinking banking sector funding base are currently forcing deleveraging instead.

Expansionary fiscal consolidation is unlikely

The only scenario where the government debt-to-GDP ratio declines would be under an "expansionary fiscal consolidation" scenario. (See column "Debt/GDP to 100% by 2025" in table below). These are adjustments seen in Denmark and Ireland in the 1980s and associated with a decrease in the risk premium thanks to improved expectations, leading to lower real interest rates and crowding-in of private investment. This non-Keynesian effect generally occurs against a starting backdrop of significant public finances distress and, in some cases, is supported by significant exchange rate depreciation.

In Lebanon's case, stepping back from the brink may improve expectations but fiscal consolidation could be resisted socially and coordinated exchange rate policy is unfeasible under the USD peg regime. In the event, should medium-term real GDP

growth and medium-term primary balance average 6% and 6% of GDP respectively, government debt can decline to c100% of GDP by 2025. Recall that real GDP growth averaged 9.1% over 2007-10 on the political stability dividend and pent-up demand. This growth boost helped government debt decline from a peak of 183% of GDP in 2006 to a low of 130% of GDP in 2012.

Devaluation a further challenge

A real effective exchange rate (REER) shock, in the absence of other compensatory macro policies, would further exacerbate challenging government debt dynamics. (See column “100% devaluation” in table below). Under an arbitrary 100% devaluation, government debt would jump to 176% of GDP due to the negative impact on foreign-currency debt, but higher inflation would erode domestic debt. We assume a one-off increase in headline inflation through a standard Fx pass-through coefficient of 25%, in line with IMF standard DSA models. The share of foreign-currency debt in total government debt would increase from c40% to c60%. Total government debt would thus likely increase to 196.2% of GDP by 2025, all else being equal.

Disorderly default under current conditions could bring recovery value to 20c

Current starting economic conditions are consistent with a stable debt stock of just 33% of GDP (column “2019F” in table below). As such, should a disorderly adjustment take place and a restructuring aim to achieve a stable debt load, the face-value cut to total government debt could likely need to be 78.4%, i.e. close to 80%. This could likely bring recovery value on total debt to just over 20c. This large face-value cut means it would likely not be possible to avoid a restructuring of both domestic and external government debt. For instance, illustratively, if domestic debt took full losses (recovery value: 0%), the face-value cut to external government debt would still need to be 42.7%. Conversely, if external debt took full losses (recovery: 0%), the face-value cut to domestic debt would still need to be c65%.

Under an arbitrary 100% devaluation, the stable debt stock could stand around 50% of GDP. The face-value cut to total government debt could need to be 71.6%, helped by a deflated domestic debt stock. This could bring recovery value on total debt to just below 30c. It would likely still not be possible to achieve this face-value cut on total government debt with just face-value cuts on domestic debt. For instance, illustratively, if domestic debt took full losses (recovery value: 0%), the face-value cut to external government debt would still need to be 48.1%. Conversely, if external debt took full losses (recovery: 0%), the face-value cut to domestic debt would still need to be c37%.

Managed restructurings without IMF are unlikely

For completeness, we discuss recovery values under managed restructurings in the absence of the IMF, although we do not think these are likely scenarios. These would be scenarios where authorities manage to stabilize domestic depositor confidence, avoid an IMF program and subsequently decide to restructure debt to bring it to more manageable levels. In our view, a debt restructuring would still impact depositor confidence and a devaluation without external financing could leave lira demand unanchored. We estimate a 10-25% face-value cuts to government debt would not lead banks to require additional capital, but would not lower the debt stock much.

Illustratively, should a debt restructuring aim to lower the debt stock to 100% of GDP, the needed face-value cut to total government debt would need to stand at c35-43%, depending on whether an Fx devaluation is carried out. In these two cases, the face-value cuts could be fully shouldered by domestic debt (without the need for face-value cuts to external government debt) or, alternatively, could be fully shouldered by external debt (without the need for face-value cuts to domestic government debt). (See rows below “target debt level in restructuring scenario” in columns “2019F + managed haircut” and “100% deval + managed haircut”). In the absence of economic reforms, government debt would still be in an increasing path.

Table 6: Debt face-value cuts needed to stabilize debt ratios under various macro and restructuring assumptions (excluding IMF program)

	2019F	2019F + managed haircut	Higher MT growth	Higher MT primary balance	Higher real interest rate	50% cut to nominal interest rates	Debt/GDP to 100% by 2025	100% devaluati on	100% deval + managed haircut
Medium-term macro assumptions									
Primary balance (% of GDP)	1.5	1.5	1.5	4.7	1.5	1.5	6.0	1.5	1.5
Fiscal balance (% of GDP) - starting level	-7.6	-7.6	-7.5	-4.5	-10.7	-3.1	-2.7	-13.4	-13.4
Real weighted interest rate (%)	4.0	4.0	4.0	4.0	6.0	1.0	4.0	4.0	4.0
Real domestic interest rate (%)	4.1	4.1	4.1	4.1	6.0	1.1	4.1	4.1	4.1
Real external interest rate (%)	4.0	4.0	4.0	4.0	6.0	1.0	4.0	4.0	4.0
CPI inflation (%)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Real GDP growth (%yoy)	-0.4	-0.4	2.9	1.0	1.0	1.0	6.0	1.0	1.0
Government debt (% of GDP) - starting level	154.5	154.5	154.7	154.4	160.6	153.0	145.6	176.1	176.1
Domestic debt (% of GDP)	96.3	96.3	96.4	96.3	100.1	95.4	90.8	79.8	79.8
External debt (% of GDP)	58.1	58.1	58.2	58.1	60.5	57.6	54.8	96.3	96.3
Government debt (% of GDP) - 2025F	174.8	174.8	155.8	154.4	196.2	145.8	103.7	196.2	196.2
Domestic debt (% of GDP)	109.0	109.0	97.1	96.3	122.4	90.9	64.7	88.9	88.9
External debt (% of GDP)	65.8	65.8	58.6	58.1	73.9	54.9	39.0	107.3	107.3
Exchange rate (USD/LL)	1,507.5	1,507.5	1,507.5	1,507.5	1,507.5	1,507.5	1,507.5	3,015.0	3,015.0
Debt-stabilizing primary balance (% of GDP)	6.8	6.8	1.7	4.7	7.6	0.1	-2.9	6.2	6.2
Stable debt level consistent with assumptions (% of GDP)	33.3	33.3	135.3	154.4	30.3	-	-	50.0	50.0
Target debt level in restructuring scenario (% of GDP)	33.3	100.0	135.3	100.0	30.3	-	-	50.0	100.0
Uniform face-value cut on domestic and external debt									
Implied face-value cut on total debt (%)	78.4	35.3	12.5	35.2	81.1	-	-	71.6	43.2
Implied total debt recovery rate (US\$c)	21.6	64.7	87.5	64.8	18.9	-	-	28.4	56.8
Domestic debt takes losses first									
Implied face-value cut on domestic debt (%)	100.0	56.5	20.1	56.5	100.0	-	-	100.0	95.4
Implied domestic debt recovery rate (US\$c)	0.0	43.5	79.9	43.5	0.0	-	-	0.0	4.6
Needed additional EXD face-value cut (%)	42.7	0.0	0.0	0.0	49.9	-	-	48.1	0.0
Implied EXD recovery value (US\$c)	57.3	100.0	100.0	100.0	50.1	-	-	51.9	100.0
External debt takes losses first									
Implied face-value cut on external debt (%)	100.0	93.7	33.3	93.6	100.0	-	-	100.0	79.0
Implied external debt recovery rate (US\$c)	0.0	6.3	66.7	6.4	0.0	-	-	0.0	21.0
Needed additional domestic debt face-value cut (%)	65.4	0.0	0.0	0.0	69.8	-	-	48.1	0.0
Implied domestic debt recovery value (US\$c)	34.6	100.0	100.0	100.0	30.2	-	-	51.9	100.0

Source: Haver, MoF, BofA Merrill Lynch Global Research. Medium-term real GDP growth assumption for scenarios "2019F" and "2019F + managed haircut" is 1% (versus -0.4% penciled in for the year 2019). Devaluation is assumed to lead to a one-off increase in headline inflation through a standard Fx pass-through coefficient of 25%. We do not take into account government arrears or public sector contingent liabilities arising from risks to the financial sector (BDL + banks). Face-value cuts in devaluation scenarios refer to pre-devaluation debt stocks. Starting level of debt refers to 2020 levels, except for the two 2019F columns.

Bringing the IMF into the picture

We identify 4 central hypothetical restructuring scenarios going forward, and duplicate these with variants that include USD peg devaluation. All in, this would imply 8 main hypothetical scenarios. We present a summary of main macro and restructuring variables in the table below. Under current dynamics, scenario 1a is the worst case scenario ("disorderly adjustment with a devaluation"), and could be difficult to avoid in a hard landing. Scenario 4a ("typical IMF program with a devaluation"), and, to a lesser extent, scenario 4 ("typical IMF program" without a devaluation), are the most likely scenarios under an IMF program, in our view.

Restructuring scenarios 1 and 1a – disorderly adjustments

These scenarios represent a disorderly adjustment without an IMF program (without or with an illustrative 100% devaluation, respectively). Face-value cuts to total government debt would likely need to be of a magnitude of c70-80% to stabilize the debt stock. Face-value cuts would be applied to both domestic and external debt, in our view. High exit yields are likely.

We estimate banking sector recapitalization costs to be cUS\$20bn (36-53% of GDP). This would lead to deposit bail-in requirements of 12-13% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to c25%.

Recall that, as the bulk of deposits is concentrated, with the IMF estimating that 1% of deposit accounts hold 50% of total deposits, deposit losses could be distributed unevenly, according to political economy considerations and the nature of the Cabinet.

However, in a disorderly adjustment, banking sector Fx exposure to the BdL could be at risk of being restructured, in our view. We note that BdL Fx CDs are trading well below par since the start of mass protests, albeit in a thin market. For instance, the US\$0.6bn 6.2% Feb-20 BdL Fx CD is trading at 94c, the US\$0.9bn 6.25% Sept-22 BdL Fx CD is trading at 56c, and the US\$0.6bn Aug-29 BdL Fx CD is trading at 45c, according to Bloomberg data as of 22 November.

We estimate banking sector recapitalization costs to be cUS\$80bn (145-225% of GDP), should domestic banking sector Fx exposure to the BdL be restructured on the same terms as government debt. This would lead to deposit bail-in requirements of 49-56% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to an average of c100%, fully wiping them out.

We expect regulatory forbearance to allow bank capital to be gradually raised to meet the additional provisioning costs resulting from a spike in Non-Performing Loans (NPLs). Provisioning costs are assumed to correspond to a 30% increase in NPLs on banking sector claims on resident and non-resident customers (US\$18bn; c80% of capital).

A devaluation could overshoot fair-value by a large margin in a backdrop of unanchored lira demand and to compress the current account deficit to financeable levels. Inflation could spike to high levels in this case.

All else being equal, we estimate the banking sector could make revaluation P&L gains of US\$9.1bn in a 100% devaluation scenario, reducing calls on capital. This is due to the sector's net long Fx position, taking into account its foreign currency deposits at the BdL (on the assumption the latter is not restructured). The counterpart is a net Fx short position in the corporate, government and BdL sectors. We estimate the BdL would make revaluation P&L losses of US\$24.8bn in a 100% devaluation scenario, increasing calls on capital.

Given the large deposit bail-in needs in these disorderly adjustments, and in light of the unstable socio-political situation, forcible currency conversions may be pursued by policy-makers. Converting Fx deposits in the banking sector at an unfavorable exchange rate (say the current USD peg rate), and subsequently devaluing the currency by 100%, is essentially equivalent to a 50% haircut on deposits. Higher inflation would further erode domestic purchasing power.

In addition, we estimate that selective, forced, conversion of line items on the banking sector balance sheet at an unfavorable exchange rate (say the current exchange rate), and then devaluing the currency by an illustrative 100%, could improve the banking sector and BdL capital positions. We estimate that the banking sector and the BdL could make revaluation P&L gains of US\$29.1bn and of US\$17.4bn respectively in this selective conversion hypothetical scenario. This would involve forcible conversion at an unfavorable exchange rate of the banking sector Fx deposits as well as Fx exposure to the BdL, prior to an illustrative 100% devaluation.

Restructuring scenarios 2 and 2a – soft IMF program

These scenarios represent an orderly adjustment within an IMF program (without or with an illustrative 100% devaluation, respectively). Face-value cuts to total government debt would likely be calibrated to minimize banking sector recapitalization costs and to keep government debt flattish to current levels. Exit yields are likely to be elevated, given the relatively still high government debt levels.

We estimate a 30% front-loaded face-value cut to the existing pre-IMF pre-devaluation government debt stock would be required to keep government debt at the 150% of GDP level (or 163% of GDP in the hypothetical devaluation scenario variant). This magnitude for the face-value cut to government debt would be needed to make room for government borrowing from the IMF in the scale mentioned in the previous section. Note that the IMF adjustment scenario in its latest article IV did target a government debt-to-GDP level of 163% of GDP by 2024.

In this scenario, we estimate banking sector recapitalization costs to be cUS\$4-6bn (11-13% of GDP). This would lead to deposit bail-in requirements of just 3-4% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to just c6-8%. An infusion of external financing could thus avoid bail-ins.

We would expect any BdL negative equity to be maintained in the short-term, and for a restructuring of the banking sector Fx exposure to the BdL to be avoided. We expect regulatory forbearance to allow for gradual increases in banking sector capital to accommodate higher provisioning costs. The required face-value cut to government debt may be accommodated fully by domestic debt, although we would expect external debt to be involved in any restructuring.

Restructuring scenarios 3 and 3a – market pricing

These scenarios represent an orderly adjustment within an IMF program (without or with an illustrative 100% devaluation, respectively). Face-value cuts to total government debt would be calibrated to meet market expectations. Exit yields are likely to be at a medium-level, given some economic adjustment and a lower government debt stock.

We estimate market expectations, as reflected in asset pricing, are consistent with 35% face-value cuts to total government debt and to coupon rates. (See EXD Strategy section for a discussion of market pricing.) This restructuring would bring government debt to the 120% of GDP level (or 130% of GDP in the hypothetical devaluation scenario variant).

In this scenario, we estimate banking sector recapitalization costs to be cUS\$6-8bn (14-17% of GDP). This would lead to deposit bail-in requirements of just 4-5% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to just c8-10%. An infusion of external financing could thus avoid bail-ins.

We would expect any BdL negative equity to be maintained in the short-term, and for a restructuring of the banking sector Fx exposure to the BdL to be avoided. We expect regulatory forbearance to allow for gradual increases in banking sector capital to accommodate higher provisioning costs. The required face-value cut to government debt may be accommodated fully by domestic debt, although we would expect external debt to be involved in any restructuring.

Restructuring scenarios 4 and 4a – typical IMF program

These scenarios represent an orderly adjustment within an IMF program (without or with an illustrative 100% devaluation, respectively). Face-value cuts to total government debt, exchange rate and fiscal adjustments would be calibrated to firmly put government debt on a declining path and bring external funding requirements to a financeable level. Exit yields are likely to be at a medium-level, given an economic adjustment and a lower government debt stock.

We estimate a 50% front-loaded face-value cut to the existing pre-IMF pre-devaluation government debt stock and a 50% cut to coupon rates would be required to bring government debt to the 100% of GDP level (or 110% of GDP in the hypothetical

devaluation scenario variant). This makes room for government borrowing from the IMF in the scale mentioned in the previous section. With primary balance just below 5% of GDP, government debt should remain in a declining path. This would thus in time restore the government's market access, although a follow-up IMF program may be needed. Both domestic and external debt are likely to be involved in any restructuring.

In this scenario, we estimate banking sector recapitalization costs to be cUS\$10-12bn (21-29% of GDP). This would lead to deposit bail-in requirements of 7% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to c14%.

We estimate banking sector recapitalization costs to be cUS\$50bn (90-136% of GDP), should domestic banking sector Fx exposure to the BdL be restructured on the same terms as government debt. This would lead to deposit bail-in requirements of 30-34% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to 60-68%.

However, in the short-term, we would expect any BdL negative equity to be maintained, and for a restructuring of the banking sector Fx exposure to the BdL to be avoided. We would expect the linkages between the BdL and the banking sector to be gradually unwound over the medium-term as economic reforms start to yield fruit. We expect regulatory forbearance to allow for gradual increases in banking sector capital to accommodate higher provisioning costs.

Avoiding deposit bail-ins would thus likely depend on a) the extent and timing of the decrease in gross fiscal financing requirements; b) the overall financing envelop and the use of funds in the IMF program; c) extent of regulatory forbearance; and, d) availability of other external financing, for instance, from bank shareholders or owners.

Table 7: Potential recovery values under various hypothetical macro and restructuring assumptions (with IMF program, except scenarios 1 and 1a)

	Scenario 1	Scenario 1a	Scenario 2	Scenario 2a	Scenario 3	Scenario 3a	Scenario 4	Scenario 4a
	Disorderly	Disorderly + deval	Soft IMF program	Soft IMF program + deval	Market pricing	Market pricing + deval	Typical IMF program	Typical IMF program + deval
US\$bn, except where otherwise stated								
Face-value cut to total government debt (%)	78.4	71.6	30.0	30.0	35.0	35.0	50.0	50.0
New face-value of total government debt (US\$c)	21.6	28.4	70.0	70.0	65.0	65.0	50.0	50.0
Coupon cut (%)	-	-	-	-	35.0	35.0	50.0	50.0
Exit yield (%)	High	High	High	High	Medium	Medium	Medium	Medium
6.65% '24s bonds implied Net Present Value (NPV)	20	20	51	51	46	46	35	35
6.65% '30s bonds implied Net Present Value (NPV)	20	20	47	47	41	41	32	32
IMF (?)	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Devaluation size (%)	0	100	0	100	0	100	0	100
Government debt (% of GDP) - starting level	154.5	154.5	154.5	154.5	154.5	154.5	154.5	154.5
Domestic-currency debt (% of GDP)	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
Foreign-currency debt (% of GDP)	58.1	58.1	58.1	58.1	58.1	58.1	58.1	58.1
End of scenario government debt (% of GDP)	33.3	50.0	150.0	163.0	120.0	130.0	100.0	110.0
Ability to haircut only domestic debt (?)	No	No	Yes, but unlikely	Yes, but unlikely	Yes, but unlikely	Yes, but unlikely	Yes, but unlikely	Y., but unlikely
Bank recap costs (US\$bn), excluding Fx exposure to BdL	20.8	19.1	6.5	4.7	7.9	6.2	12.2	10.5
% of GDP	36.4	52.6	11.3	13.0	13.8	17.0	21.4	28.8
Deposit bail-in (%) - all depositors	12.3	13.1	3.8	3.2	4.7	4.2	7.2	7.2
Deposit bail-in (%) - only HNWIs	24.7	26.2	7.6	6.5	9.4	8.4	14.5	14.4
Bank recap costs (US\$bn), including Fx exposure to BdL	83.2	81.5	29.8	28.1	35.2	33.4	51.2	49.5
% of GDP	145.5	224.1	52.1	77.3	61.5	92.0	89.5	136.1
Deposit bail-in (%) - all depositors	49.3	55.8	17.7	19.3	20.8	22.9	30.3	33.9
Deposit bail-in (%) - only HNWIs	98.6	111.6	35.3	38.5	41.7	45.8	60.6	67.7
Additional provisioning costs (US\$bn)	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
% of current capital	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
memo:								
Banks revaluation P&L (100% deval)	-	9.1	-	9.1	-	9.1	-	9.1
Banks revaluation P&L (100% deval, select conversion)	-	29.1	-	29.1	-	29.1	-	29.1
BdL revaluation P&L (100% deval) - US\$bn	-	-24.8	-	-24.8	-	-24.8	-	-24.8
BdL revaluation P&L (100% deval, select conversion)	-	17.4	-	17.4	-	17.4	-	17.4
Nominal GDP (US\$bn)	57.2	36.3	57.2	36.3	57.2	36.3	57.2	36.3

Source: Haver, BdL, MoF, BofA Merrill Lynch Global Research. Banking sector recapitalization needs assume the Capital Adequacy Ratio (CAR) is to be brought back to the national regulatory requirement of 15%. Provisioning costs are assumed to correspond to a 30% increase in NPLs on banking sector claims on resident and non-resident customers. We assume regulatory forbearance to allow gradual capital increase to meet higher provisioning needs. In scenario 1 and 1a, bond NPVs calculation assume coupon cut of the same magnitude as the face-value cut. Bank recap costs including banking sector Fx exposure to the BdL assume BdL foreign-currency exposure to banks is restructured under the same face-value cuts being applied to total government debt.

Banking sector recap costs: in the eye of the storm

The large face-value cuts to government debt discussed in the previous section would likely have a material impact on financial stability and domestic banking sector recapitalization costs.

Modeling banking sector recapitalization costs

We provide below our estimates for banking sector recapitalization costs and associated deposit bail-in needs for a range of face-value cuts to government domestic debt, government external debt, banking sector Fx exposure to the BdL, and devaluation (0 or an illustrative 100%). We compute these costs in relation to bringing the Capital Adequacy Ratio (CAR) to 15% (national regulations) or 10.5% (Basel III).

Most scenarios suggest large systemic costs for bank restructuring due to the large banking sector and the large exposure to the government and the BdL. The IMF reports the average cost of systemic bank restructuring is 11% of GDP, but there is substantial cross-country variation. As such, our estimates of banking sector recapitalization costs in case of a potential restructuring appear much larger, except in the “soft IMF program” scenario discussed previously.

Regulatory forbearance on risk-weights to continue

Risk-weights are currently set at 0% for LL-denominated government and BdL debt (CDs and deposits), at 150% for Fx-denominated government debt and at 50% for Fx-denominated government BdL debt. Basel III rules suggest that claims on sovereigns and central banks should be risk-weighted at 100% for a credit assessment of BB+ to B-, and 150% below B-. Authorities use the average rating of two out of the three rating agencies (Moody's, S&P, Fitch) for their credit assessment.

The BCC (Banking Control Commission) clarifies that the reason for its discretion in setting a 50% risk-weight for BdL Fx-denominated exposure is that the BdL on-places Fx-denominated deposits it receives from domestic banks with foreign central banks and prime banks. These foreign banks hold a credit assessment of BBB and above (attracting a risk-weight of 0-50%, depending on the bank). We understand that the risk-weight on BdL Fx-denominated exposure was reduced from 100% to 50% in 2014. This reduction provided an incentive for banks to place Fx-denominated assets at the BdL rather than acquire eurobonds, all else being equal.

From containment to resolution

De facto capital and deposit controls may be controlling the pace of decline in BdL Fx reserves, preventing a fully-fledged balance-of-payments crisis and containing a bank run. However, the damage done to depositor confidence may be long-lasting. In a steady state resolution, the banking sector needs to be able to be fully functioning without restrictions, and money demand needs to have stabilized.

The deposit withdrawals from customers reflect depositor uncertainty about the health and solvency of the domestic banking sector, in our view. In turn, this could likely be due to the banking sector large exposure to the sovereign and the BdL, and to the decline in monetary coverage of Fx reserves. For the narrative to shift and for depositors to voluntarily keep their funds in the banking sector, it is imperative for policy-makers to address these concerns through a concerted reform effort coupled with a return of political stability.

Banking sector Fx exposure to the BdL indirect source of risk

The banking sector exposure to the BdL dwarfs its exposure to the government by far. The banking sector held US\$14.9bn in Eurobonds and US\$16.6bn in domestic government debt (totaling 11% of bank assets) as of September 2019. However, the domestic banking sector held currency and deposits at the BdL of US\$153bn (58.5% of bank assets). The banking sector total capital base was US\$20.6bn in September 2019. In a disorderly adjustment, banking sector Fx exposure to the BdL could be at risk of

being restructured, in our view. We note that BdL Fx CDs are trading well below par since the start of mass protests, albeit in a thin domestic market.

Banks exposed to an Fx duration mismatch

The Fx duration mismatch of banks and their negative net foreign asset (NFA) position limits their ability to respond to the increase in customer Fx demand following the start of mass protests. Maintaining credit lines with correspondent banks is thus paramount.

As a result of banking sector foreign-currency exposure to the BdL, we estimate the banking sector held a net long foreign-currency position of US\$18bn in September 2019. These foreign-currency assets are locked in long-duration instruments and deposits at the BdL.

However, the banking sector's net foreign asset position was negative at -US\$10.3bn in the same month. Foreign liabilities are relatively short-dated and total US\$46.5bn (US\$36.6bn in non-resident deposits and US\$9.7bn in liabilities to the non-resident financial sector). Maintaining credit lines with correspondent banks open would be needed not to increase the already tight Fx position. Foreign assets stood at US\$36.2bn (including eurobonds), with the most liquid portion held with non-resident banks and non-resident central banks standing at US\$9.8bn. The domestic banks' position versus the non-resident financial sector is thus roughly currently in balance.

Banking sector recapitalization costs under disorderly scenario could be large

In a disorderly restructuring scenario, we estimate banking sector recapitalization costs to be cUS\$80bn (145-225% of GDP), should domestic banking sector Fx exposure to the BdL be restructured on the same terms as government debt (80% face-value cuts).

These costs would lead to deposit bail-in requirements of 49-56% on all deposits to bring the Capital Adequacy Ratio (CAR) back to the national regulatory requirement of 15%. Should deposit bail-ins only apply to High-Net Worth Individuals (HNWIs), then the deposit bail-in requirements on such depositors would likely need to double to an average of c100%, fully wiping them out. These requirements do not appear to differ materially in the case where the Capital Adequacy Ratio (CAR) is to go back to the 10.5% Basel III requirement, in our view.

Forced de-dollarization could be pursued in disorderly adjustments

Forced de-dollarization at an unfavorable rate prior to a devaluation may be adopted by policy-makers in lieu of official bank deposit haircuts in a disorderly adjustment. Authorities recently published a decree to encourage de-dollarization of resident transactions in the economy.

Five EM episodes over 1982-2002 could be relevant to the current backdrop (Mexico 1982, Bolivia 1982, Peru 1985, Argentina 1989 and 2002). These episodes saw forcible conversion of foreign-currency deposits and loans into local currency in domestic banks took place against a backdrop of severe economic crises. Forced de-dollarization was generally accompanied by capital, exchange and deposit controls, external debt default, and accumulation of domestic arrears. Measures were generally preceded by capital outflows or bank runs, and, in some cases, led to prolonged bank holidays and nationalizations. In all five episodes, deposit dollarization was eventually re-allowed.

Selective conversion could improve capital positions of both banks and BdL

We estimate that the banking sector and the BdL could make revaluation P&L gains of US\$29.1bn and of US\$17.4bn respectively in a selective conversion hypothetical scenario. This would involve forcible conversion at an unfavorable exchange rate (current USD/LL level) of the banking sector Fx deposits as well as Fx exposure to the BdL, prior to an illustrative 100% devaluation. This would improve the banking sector and BdL capital positions. Selective conversion would need to include the banking sector Fx claims on the BdL, which essentially deflates their par-value. Otherwise, banks would be the only sector improving its position, to the detriment of both depositors and BdL.

Currency at risk of overshooting in disorderly adjustment

Unanchored lira demand may be exacerbated by a disorderly Fx adjustment. Converting Fx deposits in the banking sector at an unfavorable exchange rate (say the current USD peg rate), and subsequently devaluing the currency by an illustrative 100%, is essentially equivalent to a 50% haircut on deposits. Higher inflation would further erode domestic purchasing power.

However, unless confidence and money demand stabilizes, the currency could overshoot, in our view. Indeed, we calculate that the converted total deposit base needs to be deflated by 400% to be equal in USD terms to the current Fx reserves of the BdL.

In the absence of a political settlement and a return of domestic confidence, avoiding deposit bail-ins through whichever form would thus likely depend on: a) the timely approval and execution of an IMF program; b) the extent and timing of the decrease in gross fiscal financing requirements; c) the overall financing envelop and the use of funds in the IMF program; and, d) availability of other external financing, for instance, from bank shareholders or owners.

Table 8: Commercial banks customer deposits (September 2019)

	LLbn	US\$bn
Resident customer deposits	199,302	132.2
LL	63,138	41.9
Fx	136,165	90.3
Non-resident customer deposits	55,212	36.6
LL	5,656	3.8
Fx	49,556	32.9

Source: Haver, BofA Merrill Lynch Global Research. Note that a small-sized bank was removed from the consolidated statistics in September 2019 following winding down of operations due to OFAC designation.

Table 9: Banking sector revaluation gains based on Fx devaluation of 100% under total and selective conversion of balance sheet line items

	Current		Total conversion		Selective conversion (excl. claims on BdL)		Selective conversion (incl. claims on BdL)	
	USD/LL @1,507.5	USD/LL @3,015	USD/LL @3,015	USD/LL @3,015	USD/LL @3,015	USD/LL @3,015	USD/LL @3,015	
Sep-19	LLbn	US\$bn	LLbn	US\$bn	LLbn	US\$bn	LLbn	US\$bn
Net foreign assets	-15,480	-10.3	-27,938	-9.3	21,873	7.3	21,873	7.3
Foreign assets	54,550	36.2	106,467	35.3	106,467	35.3	106,467	35.3
Foreign liabilities	70,030	46.5	134,405	44.6	84,594	28.1	84,594	28.1
Net foreign-currency assets	27,315	18.1	54,630	18.1	242,022	80.3	114,984	38.1
Foreign-currency assets	229,271	152.1	458,542	152.1	458,542	152.1	331,504	110.0
Foreign-currency liabilities	201,956	134.0	403,912	134.0	216,520	71.8	216,520	71.8
Revaluation P&L (100% deval, based on net FA)			-12,457	-4.1	37,353	12.4	37,353	12.4
Revaluation P&L (100% deval, based on net FC)			27,315	9.1	214,707	71.2	87,669	29.1

Source: Haver, BofA Merrill Lynch Global Research. Selective conversion (incl. claims to BdL) is conversion at an unfavorable exchange rate (current USD/LL level) of the banking sector Fx deposits as well as banking sector Fx exposure to BdL, while converting other line items in the domestic banking sector balance sheet to the devalued exchange rate. Selective conversion (excl. claims to BdL) converts banking sector Fx exposure to BdL at the devalued exchange rate.

Table 10: Bank recapitalization costs and deposit bail-in requirements under no Fx devaluation, various Eurobond and domestic debt face-value cuts

Eurobond face-value cuts only						
<i>US\$bn</i>	0%	10%	25%	50%	60%	80%
Book value	14.9	13.4	11.1	7.4	5.9	3.0
Realised loss	0.0	1.5	3.7	7.4	8.9	11.9
New capital	20.6	19.2	16.9	13.2	11.7	8.7
New RWAs	123	121	117	112	110	105
Capital ratio	16.8%	15.9%	14.4%	11.8%	10.7%	8.3%
memo:						
Additional capital required to bring back CAR to 10.5%	-	-	-	-	-	2.3
Additional capital required to bring back CAR to 15%	-	-	0.7	3.6	4.7	7.0
Domestic debt face-value cuts only						
<i>US\$bn</i>	0%	10%	25%	50%	60%	80%
Book value	17.3	15.5	13.0	8.6	6.9	3.5
Realised loss	0.0	1.7	4.3	8.6	10.4	13.8
New capital	20.6	18.9	16.3	12.0	10.3	6.8
New RWAs	123	123	123	123	123	123
Capital ratio	16.8%	15.4%	13.3%	9.8%	8.4%	5.5%
memo:						
Additional capital required to bring back CAR to 10.5%	-	-	-	0.9	2.6	6.1
Additional capital required to bring back CAR to 15%	-	-	2.1	6.5	8.2	11.6
Eurobond & domestic debt face-value cuts						
<i>US\$bn</i>	0%	10%	25%	50%	60%	80%
Book value	32.1	28.9	24.1	16.1	12.9	6.4
Realised loss	0.0	3.2	8.0	16.1	19.3	25.7
New capital	20.6	17.4	12.6	4.6	1.4	-5.1
New RWAs	123	121	117	112	110	105
Capital ratio	16.8%	14.4%	10.7%	4.1%	1.2%	-4.8%
memo:						
Additional capital required to bring back CAR to 10.5%	-	-	-	7.2	10.2	16.1
% of GDP	-	-	-	12.5	17.8	28.2
Additional capital required to bring back CAR to 15%	-	0.7	5.0	12.2	15.1	20.8
% of GDP	-	1.2	8.8	21.4	26.4	36.4
Equivalent deposit bail-in requirements						
Equivalent deposit bail-in required to bring CAR to 10.5% (US\$bn)	-	-	-	7.2	10.2	16.1
% of total customer deposits	-	-	-	4.3	6.0	9.5
% of HNWI deposits only	-	-	-	8.5	12.0	19.1
Equivalent deposit bail-in required to bring CAR to 15% (US\$bn)	-	0.7	5.0	12.2	15.1	20.8
% of total customer deposits	-	0.4	3.0	7.2	8.9	12.3
% of HNWI deposits only	-	0.8	5.9	14.5	17.9	24.7

Source: Haver, BofA Merrill Lynch Global Research

Table 11: Bank recap costs and deposit bail-in requirements under no Fx deval, various Eurobond, domestic debt and bank Fx exposure to BdL face-value cuts

Fx CDs and deposits at BdL face-value cuts only						
<i>US\$bn</i>	0%	10%	25%	50%	60%	80%
Book value	84.3	75.8	63.2	42.1	33.7	16.9
Realised loss	0.0	8.4	21.1	42.1	50.6	67.4
New capital	20.6	12.2	-0.4	-21.5	-29.9	-46.8
New RWAs	123	119	113	102	98	89
Capital ratio	16.8%	10.3%	-0.4%	-21.1%	-30.6%	-52.4%
memo:						
Additional capital required to bring back CAR to 10.5%	-	0.3	12.2	32.2	40.2	56.2
% of GDP	-	0.5	21.4	56.3	70.3	98.2
Additional capital required to bring back CAR to 15%	-	5.6	17.3	36.8	44.6	60.2
% of GDP	-	9.8	30.3	64.3	78.0	105.2
Eurobond, domestic debt, FX CDs & Fx deposits at BdL face-value cuts						
<i>US\$bn</i>	0%	10%	25%	50%	60%	80%
Book value	116.4	104.8	87.3	58.2	46.6	23.3
Realised loss	0.0	11.6	29.1	58.2	69.8	93.1
New capital	20.6	9.0	-8.5	-37.6	-49.2	-72.5
New RWAs	123	117	107	91	84	72
Capital ratio	16.8%	7.7%	-7.9%	-41.4%	-58.3%	-101.4%
memo:						
Additional capital required to bring back CAR to 10.5%	-	3.2	19.7	47.1	58.1	80.0
% of GDP	-	5.7	34.4	82.3	101.5	139.8
Additional capital required to bring back CAR to 15%	-	8.5	24.5	51.2	61.9	83.2
% of GDP	-	14.8	42.8	89.5	108.2	145.5
Equivalent deposit bail-in requirements						
Equivalent deposit bail-in required to bring CAR to 10.5% (US\$bn)	-	-	-	47.1	58.1	80.0
% of total customer deposits	-	-	-	27.9	34.4	47.4
% of HNWI deposits only	-	-	-	55.8	68.8	94.8
Equivalent deposit bail-in required to bring CAR to 15% (US\$bn)	-	8.5	24.5	51.2	61.9	83.2
% of total customer deposits	-	5.0	14.5	30.3	36.6	49.3
% of HNWI deposits only	-	10.1	29.0	60.6	73.3	98.6

Source: Haver, BofA Merrill Lynch Global Research

Table 12: Bank recapitalization costs and deposit bail-in requirements under 100% devaluation, various Eurobond and domestic debt face-value cuts

Fx 100% deval. Eurobond face-value cuts only						
US\$bn	0%	10%	25%	50%	60%	80%
Book value	14.9	13.4	11.1	7.4	5.9	3.0
Realised loss	0.0	1.5	3.7	7.4	8.9	11.9
New capital	10.3	8.8	6.6	2.9	1.4	-1.6
New RWAs	103.1	100.9	97.5	92.0	89.7	85.3
Capital ratio	10.0%	8.8%	6.8%	3.1%	1.6%	-1.8%
memo:						
Additional capital required to bring back CAR to 10.5%	0.5	1.8	3.6	6.8	8.0	10.5
Additional capital required to bring back CAR to 15%	5.1	6.3	8.0	10.9	12.1	14.4
Fx 100% deval. Domestic debt face-value cuts only						
US\$bn	0%	10%	25%	50%	60%	80%
Book value	17.3	15.5	13.0	8.6	6.9	3.5
Realised loss	0.0	1.7	4.3	8.6	10.4	13.8
New capital	10.3	8.6	6.0	1.7	0.0	-3.5
New RWAs	103.1	103.1	103.1	103.1	103.1	103.1
Capital ratio	10.0%	8.3%	5.8%	1.6%	0.0%	-3.4%
memo:						
Additional capital required to bring back CAR to 10.5%	0.5	2.2	4.8	9.1	10.9	14.3
Additional capital required to bring back CAR to 15%	5.1	6.9	9.5	13.8	15.5	19.0
Fx 100% deval. FX CD and deposits at BdL face-value cuts only						
US\$bn	0%	10%	25%	50%	60%	80%
Book value	84.3	75.8	63.2	42.1	33.7	16.9
Realised loss	0.0	8.4	21.1	42.1	50.6	67.4
New capital	10.3	1.9	-10.7	-31.8	-40.2	-57.1
New RWAs	103.1	98.9	92.6	82.0	77.8	69.4
Capital ratio	10.0%	1.9%	-11.6%	-38.8%	-51.7%	-82.3%
memo:						
Additional capital required to bring back CAR to 10.5%	0.5	8.5	20.5	40.4	48.4	64.4
Additional capital required to bring back CAR to 15%	5.1	12.9	24.6	44.1	51.9	67.5
Fx 100% deval. Eurobond & domestic debt face-value cuts						
US\$bn	0%	10%	25%	50%	60%	80%
Book value	32.1	28.9	24.1	16.1	12.9	6.4
Realised loss	0.0	3.2	8.0	16.1	19.3	25.7
New capital	10.3	7.1	2.3	-5.7	-9.0	-15.4
New RWAs	103.1	100.9	97.5	92.0	89.7	85.3
Capital ratio	10.0%	7.0%	2.3%	-6.2%	-10.0%	-18.0%
memo:						
Additional capital required to bring back CAR to 10.5%	0.5	3.5	8.0	15.4	18.4	24.3
% of GDP	1.4	9.6	21.9	42.4	50.6	67.0
Additional capital required to bring back CAR to 15%	5.1	8.0	12.3	19.5	22.4	28.2
% of GDP	14.2	22.1	34.0	53.8	61.7	77.5
Revaluation P&L (@ 100% devaluation, based on net FC assets)	9.1	9.1	9.1	9.1	9.1	9.1
Net additional capital required to bring back CAR to 10.5%	-	-	-	6.3	9.3	15.3
Net additional capital required to bring back CAR to 15%	-	-	3.3	10.5	13.4	19.1
Equivalent deposit bail-in requirements						
Equivalent deposit bail-in required to bring CAR to 10.5% (US\$bn)	-	-	-	6.3	9.3	15.3
% of total customer deposits	-	-	-	4.3	6.4	10.5
% of HNWI deposits only	-	-	-	8.7	12.8	20.9
Equivalent deposit bail-in required to bring CAR to 15% (US\$bn)	-	-	3.3	10.5	13.4	19.1
% of total customer deposits	-	-	2.3	7.2	9.2	13.1
% of HNWI deposits only	-	-	4.5	14.4	18.3	26.2
memo:						
Revaluation P&L (@ 100% selective conversion, based on net FC assets)	29.1	29.1	29.1	29.1	29.1	29.1
Additional capital required to bring back CAR to 10.5%	-	-	-	-	-	-
Additional capital required to bring back CAR to 15%	-	-	-	-	-	-

Source: Haver, BofA Merrill Lynch Global Research

Table 13: Bank recap costs and deposit bail-in needs under 100% devaluation, various Eurobond, domestic debt and bank Fx exposure to BdL face-value cuts

Fx 100% deval. Eurobond, domestic debt & Fx CDs and deposits at BdL face-value cuts						
US\$bn	0%	10%	25%	50%	60%	80%
Book value	116.4	104.8	87.3	58.2	46.6	23.3
Realised loss	0.0	11.6	29.1	58.2	69.8	93.1
New capital	10.3	-1.3	-18.8	-47.9	-59.5	-82.8
New RWAs	103.1	96.7	87.0	70.9	64.5	51.6
Capital ratio	10.0%	-1.4%	-21.6%	-67.5%	-92.3%	-160.6%
memo:						
Additional capital required to bring back CAR to 10.5%	0.5	11.5	27.9	55.3	66.3	88.2
% of GDP	1.4	31.6	76.8	152.2	182.4	242.7
Additional capital required to bring back CAR to 15%	5.1	15.8	31.8	58.5	69.2	90.5
% of GDP	14.2	43.5	87.6	161.0	190.3	249.1
Revaluation P&L (@ 100% devaluation, based on net FC assets)	9.1	9.1	9.1	9.1	9.1	9.1
Net additional capital required to bring back CAR to 10.5%	-	2.4	18.9	46.3	57.2	79.2
% of GDP	-	6.6	51.9	127.3	157.4	217.8
Net additional capital required to bring back CAR to 15%	-	6.8	22.8	49.5	60.1	81.5
% of GDP	-	18.6	62.6	136.1	165.4	224.1
Equivalent deposit bail-in requirements						
Equivalent deposit bail-in required to bring CAR to 10.5% (US\$bn)	-	2.4	18.9	46.3	57.2	79.2
% of total customer deposits	-	1.7	12.9	31.7	39.2	54.2
% of HNWI deposits only	-	3.3	25.8	63.4	78.4	108.4
Equivalent deposit bail-in required to bring CAR to 15% (US\$bn)	-	6.8	22.8	49.5	60.1	81.5
% of total customer deposits	-	4.6	15.6	33.9	41.2	55.8
% of HNWI deposits only	-	9.3	31.2	67.7	82.4	111.6
memo:						
Fx 100% deval. Selective conversion. Eurobond, domestic debt & Fx CDs and deposits at BdL face-value cuts						
Revaluation P&L (@ 100% selective conversion, based on net FC assets)	29.1	29.1	29.1	29.1	29.1	29.1
Additional capital required to bring back CAR to 10.5%				26.2	37.2	59.1
Additional capital required to bring back CAR to 15%			2.8	29.4	40.1	61.5
Equivalent deposit bail-in requirements						
Equivalent deposit bail-in required to bring CAR to 10.5% (US\$bn)	-	-	-	26.2	37.2	59.1
% of total customer deposits	-	-	-	18.0	25.5	40.5
% of HNWI deposits only	-	-	-	36.0	51.0	81.0
Equivalent deposit bail-in required to bring CAR to 15% (US\$bn)	-	-	2.8	29.4	40.1	61.5
% of total customer deposits	-	-	1.9	20.2	27.5	42.1
% of HNWI deposits only	-	-	3.8	40.3	54.9	84.2

Source: Haver, BofA Merrill Lynch Global Research

Table 14: Banking sector balance sheet under current Fx regime, under 100% devaluation, and under selective line items conversion to 100% devalued Fx rate

	Current		Total conversion		Selective conversion (excl. claims on BdL)		Selective conversion (incl. claims on BdL)	
	LLbn	USD/LL US\$bn	LLbn	USD/LL US\$bn	LLbn	USD/LL US\$bn	LLbn	USD/LL US\$bn
Sep-19	395,260	262.2	624,531	207.1	624,531	207.1	497,493	165.0
Assets								
Currency and deposits with Banque du Liban	231,102	153.3	358,140	118.8	358,140	118.8	231,102	76.7
Vault cash in LBP	899	0.6	899	0.3	899	0.3	899	0.3
Deposits with Banque du Liban	230,202	152.7	357,240	118.5	357,240	118.5	230,202	76.4
CDs issued by BdL in LL	48,040	31.9	48,040	15.9	48,040	15.9	48,040	15.9
CDs issued by BdL in USD	34,220	22.7	68,441	22.7	68,441	22.7	34,220	11.4
RR LL	13,113	8.7	13,113	4.3	13,113	4.3	13,113	4.3
RR Fx	29,801	19.8	59,603	19.8	59,603	19.8	29,801	9.9
Excess deposits at BdL	105,028	69.7	168,044	55.7	168,044	55.7	105,028	34.8
Fx	63,017	41.8	126,033	41.8	126,033	41.8	63,017	20.9
LL	42,011	27.9	42,011	13.9	42,011	13.9	42,011	13.9
<i>share of Fx deposits in excess deposits (%)</i>	<i>60.0</i>	<i>60.0</i>	<i>60.0</i>	<i>60.0</i>	<i>60.0</i>	<i>60.0</i>	<i>60.0</i>	<i>60.0</i>
Currency and deposits with nonresident CBs	1,212	0.8	2,424	0.8	2,424	0.8	2,424	0.8
Claims on resident customers	71,515	47.4	121,437	40.3	121,437	40.3	121,437	40.3
In LBP	21,592	14.3	21,592	7.2	21,592	7.2	21,592	7.2
Foreign currencies	49,922	33.1	99,845	33.1	99,845	33.1	99,845	33.1
Claims on nonresident customers	10,048	6.7	17,464	5.8	17,464	5.8	17,464	5.8
In LBP	2,633	1.7	2,633	0.9	2,633	0.9	2,633	0.9
Foreign currencies	7,416	4.9	14,831	4.9	14,831	4.9	14,831	4.9
Claims on resident financial sector	598	0.4	991	0.3	991	0.3	991	0.3
In LBP	205	0.1	205	0.1	205	0.1	205	0.1
Foreign currencies	393	0.3	787	0.3	787	0.3	787	0.3
Claims on nonresident financial sector	13,532	9.0	27,063	9.0	27,063	9.0	27,063	9.0
Claims on public sector	303	0.2	303	0.1	303	0.1	303	0.1
Resident securities portfolio	49,806	33.0	72,206	23.9	72,206	23.9	72,206	23.9
Lebanese treasury bills	25,013	16.6	25,013	8.3	25,013	8.3	25,013	8.3
Lebanese republic sovereign eurobonds	22,400	14.9	44,800	14.9	44,800	14.9	44,800	14.9
Other securities	2,393	1.6	2,393	0.8	2,393	0.8	2,393	0.8
Nonresident securities portfolio	1,322	0.9	2,643	0.9	2,643	0.9	2,643	0.9
Tangible assets	5,619	3.7	5,619	1.9	5,619	1.9	5,619	1.9
Intangible assets	2,313	1.5	2,313	0.8	2,313	0.8	2,313	0.8
Other foreign assets	6,036	4.0	12,072	4.0	12,072	4.0	12,072	4.0
Other assets	1,855	1.2	1,855	0.6	1,855	0.6	1,855	0.6
Liabilities	395,260	262.2	597,216	198.1	395,260	131.1	395,260	131.1
Resident customers deposits	199,302	132.2	335,467	111.3	199,302	66.1	199,302	66.1
In LBP	63,138	41.9	63,138	20.9	63,138	20.9	63,138	20.9
Foreign currencies	136,165	90.3	272,330	90.3	136,165	45.2	136,165	45.2
Nonresident customers deposits	55,212	36.6	104,767	34.7	55,212	18.3	55,212	18.3
In LBP	5,656	3.8	5,656	1.9	5,656	1.9	5,656	1.9
Foreign currencies	49,556	32.9	99,112	32.9	49,556	16.4	49,556	16.4
Resident financial sector liabilities	2,215	1.5	3,632	1.2	2,215	0.7	2,215	0.7
In LBP	799	0.5	799	0.3	799	0.3	799	0.3
Foreign currencies	1,417	0.9	2,833	0.9	1,417	0.5	1,417	0.5
Nonresident financial sector liabilities	14,564	9.7	29,128	9.7	29,128	9.7	29,128	9.7
Public sector deposits	7,119	4.7	7,119	2.4	7,119	2.4	7,119	2.4
Resident debt securities issued	422	0.3	422	0.1	422	0.1	422	0.1
Nonresident debt securities issued	254	0.2	509	0.2	254	0.1	254	0.1
Other liabilities	85,072	56.4	85,072	28.2	85,072	28.2	85,072	28.2
Capital accounts	31,100	20.6	31,100	10.3	31,100	10.3	31,100	10.3

Source: Haver, BofA Merrill Lynch Global Research. Note that a small-sized bank was removed from the consolidated statistics in September 2019 following winding down of operations due to OFAC designation. Selective conversion (inc. claims to BdL) is conversion at an unfavorable exchange rate (current USD/LL level) of the banking sector Fx deposits as well as banking sector Fx exposure to BdL, while converting other line items in the domestic banking sector balance sheet to the devalued exchange rate. Selective conversion (excl. claims to BdL) converts banking sector Fx exposure to BdL at the devalued exchange rate.

EXD: plenty of downside, not much upside

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

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

We are concerned that principal Eurobond payments beginning in March 2020 may prove too large for Lebanon, which may affect willingness to repay. Market pricing seems somewhat optimistic to us in a potential restructuring scenario. We see a more sustainable fiscal picture under larger (e.g. 50%) reductions in principal, coupons, and maturity extensions. We think bonds may need to move into the 30s to turn more constructive. Upside comes from softer restructuring requirements under external support, but realistic upside may not be much more than 5pt in such a scenario. Given high levels of uncertainty and a multitude of outcomes, we remain Marketweight.

For investors who wish to go long, or are looking at CDS-basis trades/RV trades, the amount and timing of coupons will be important, particularly if past due interest is itself hair-cut in a potential restructuring scenario. If a cut is assumed, the '30s and '25s may be good options since we see a higher chance of them paying a full coupon in February (before the March payment wall). We also provide details on customary key bond terms. Of particular note is the lack of collective action clauses across several classes, so bonds would hypothetically be restructured series by series. Recovery value is unlikely to be supported by BdL assets held abroad given international central bank asset immunity.

Lebanon government debt – an overview

Lebanon has exceptionally high levels of debt, 152% of GDP; around 2/3 of that is in local currencies, but FC debt alone still makes up c.57% of GDP. Domestic debt is held mainly by the BdL and local banks, but locals also own substantial levels of eurobonds.

This eurobond ownership profile in Lebanon may prove important in the coming months. For example, bonds held by local banks could see further selling pressure if they raise US\$ to fund deposit withdrawals.

Varied ownership profile reflects numerous BdL operations

Ownership of the various Lebanon eurobonds has been driven by local BdL-related operations in particular. This has resulted in certain bonds where ownership is dominated by local banks or the BdL. Overall, we estimate that around 50% of Eurobonds are held by local banks, whilst the BdL has around 11%. Foreign investors own the remainder, around 39% of Eurobonds.

Table 15: Lebanon government debt as of 2Q19 (Eurobond data adjusted to reflect latest figures)

Debt type	LLbn	US\$bn	% of GDP
Local currency debt	80,586	53.5	93%
BdL	42,984	28.5	50%
Local banks	26,576	17.6	31%
Other investors	11,026	7.3	13%
Foreign investors	0.0	0.0	0%
Foreign currency eurobonds	45,477	30.2	53%
BdL	5,276	3.5	6%
Local banks	22,400	14.9	26%
Foreign investors	17,801	11.8	21%
Foreign currency loans	3,175	2.1	4%
Foreign currency BdL bridge financing	1,734	1.2	2%
Other debt	3.0	0.0	0%
Gross government debt	130,975	87	152%
Public sector deposits	13,953	9.3	16%
2019F GDP	86,300	57.2	

Source: BdL, BofA Merrill Lynch Global Research. Levels include accrued interest. All data as of June 2019, although we have adjusted Eurobonds data to reflect the most recent figures. % of GDP based on 2019F GDP. Other debt reflects special T-bills in foreign currency (expropriation and contractor bonds). Public sector deposits are mostly LL-denominated.

Bond liquidity comparison

The table below provides details on individual bonds. We have included the note ‘illiquid’ next to a few bonds which are generally held by locals. It is worth highlighting that within this group, some of bonds effectively never trade at all, whilst some will trade, albeit rarely.

Unsurprisingly, bonds included in the popular EMBI benchmark tend to see better liquidity, although <1y maturity bonds (which have now been removed from the index) are also liquid. Certain bonds like the ‘29s were historically dominated by local investors, but are now traded by foreign investors.

Table 16: LEBAN US\$ Eurobonds – trading liquidity

Bond	Issue date	Amt out		YTM	Cash price	Notes	In EMBI?
		mn					
LEBAN 5.45 11/28/19	28/11/2011	1,500		359.3%	98.0	BdL = c.US\$0.6bn	-
LEBAN 6 3/8 03/09/20	09/03/2010	1,200		96.4%	79.5		-
LEBAN 5.8 04/14/20	14/04/2014	700		84.6%	77.0		-
LEBAN 6.15 06/19/20	20/06/2013	600		69.1%	74.0		-
LEBAN 8 1/4 04/12/21	12/04/2006	2,092		57.4%	57.0		Yes
LEBAN 6 1/4 05/27/22	27/05/2016	500		43.3%	46.5	Illiquid	-
LEBAN 6.1 10/04/22	12/11/2010	1,540		38.6%	46.5		Yes
LEBAN 6 01/27/23	29/11/2012	1,100		35.3%	46.5		Yes
LEBAN 6.4 05/26/23	27/05/2016	500		33.5%	46.5		-
LEBAN 6.65 04/22/24	22/04/2016	700		28.8%	46.5		Yes
LEBAN 6 1/4 11/04/24	04/11/2015	538		26.1%	46.5		Yes
LEBAN 7 12/03/24	03/12/2009	250		27.1%	46.5	Illiquid	-
LEBAN 6.2 02/26/25	26/02/2015	800		25.9%	45.0		Yes
LEBAN 6 1/4 06/12/25	12/06/2012	800		25.2%	45.0	Illiquid	-
LEBAN 6.6 11/27/26	28/11/2011	1,600		22.6%	45.0		Yes
LEBAN 6.85 03/23/27	23/03/2017	1,250		22.5%	45.0		Yes
LEBAN 6 3/4 11/29/27	29/11/2012	1,000		21.4%	45.0		Yes
LEBAN 7 03/20/28	20/11/2017	1,700		22.3%	43.3	Illiquid	-
LEBAN 6.65 11/03/28	04/11/2015	893		20.2%	45.0		Yes
LEBAN 6.85 05/25/29	27/05/2016	1,000		20.0%	45.0		-
LEBAN 6.65 02/26/30	26/02/2015	1,400		19.0%	45.0		Yes
LEBAN 7 04/22/31	22/04/2016	300		18.9%	45.0	Small, illiquid	-
LEBAN 7.15 11/20/31	20/11/2017	2,500		18.9%	45.0	Illiquid	-
LEBAN 7 03/23/32	23/03/2017	1,000		18.4%	45.0		Yes
LEBAN 8.2 05/17/33	17/05/2018	1,500		19.0%	48.1	Illiquid	-
LEBAN 8 1/4 05/17/34	17/05/2018	1,500		18.9%	47.8	Illiquid	-
LEBAN 7.05 11/02/35	04/11/2015	600		17.3%	45.0		Yes
LEBAN 7 1/4 03/23/37	23/03/2017	750		17.3%	45.0		Yes

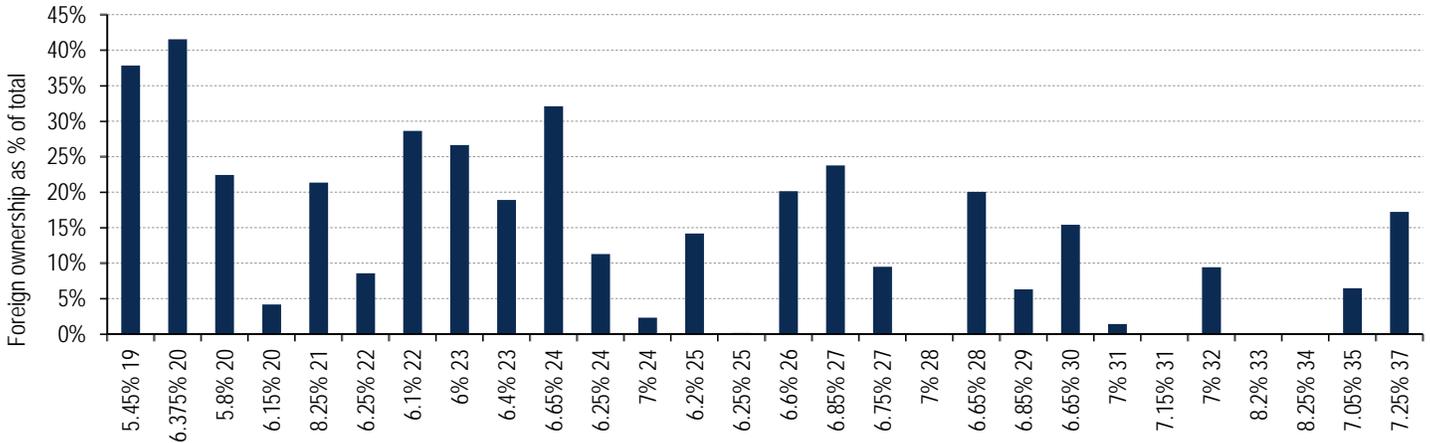
Source: Bloomberg, DataStream, BofA Merrill Lynch Global Research. Shows bonds currently in the EMBI. Prices are indicative.

Heavier foreign ownership in the front-end

We also look at Bloomberg security ownership data to get a sense of foreign ownership. We emphasize that this data should not be taken too literally – the information is affected by lack of complete data as well as different filing dates, for example. Nonetheless, it can help give a sense of foreign ownership.

A clear theme is heavier foreign ownership of the very front-end, with investors attracted to the high yields available. Similarly, the 2021 – 2024 maturities generally have somewhat higher foreign ownership as well.

Chart 4: Foreign holdings by bond – Bloomberg ownership data



Source: Bloomberg HDS data. Excludes very small April 20s.

First big pressure point = March 2020

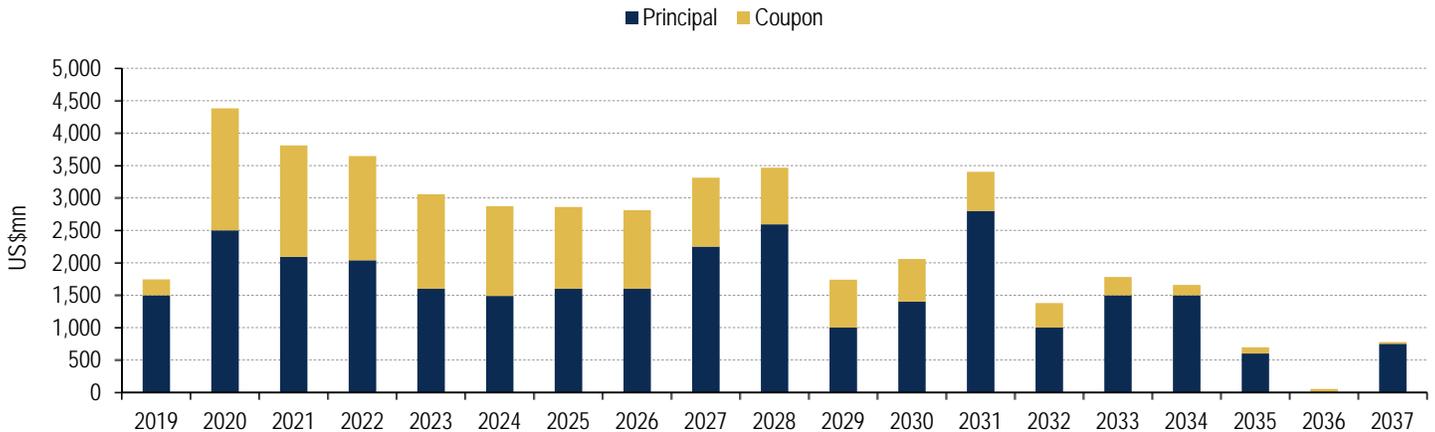
Sovereign restructurings are often as much political as financial decisions, but we think socio-economic pressures in Lebanon could become insurmountable relatively quickly. We see March-June 2020 as a particularly vulnerable period given heavy Eurobond payments within a short time frame.

This remains a key area of debate in the market. The 2020 maturities trade at much higher cash prices versus longer-dated bonds indicating lower expectations of default. We are concerned that Fx outflows (from deposits) in the coming months could push Fx reserves to vulnerable levels. As mentioned earlier, Fx reserves could reach below US\$20bn by end-February if the pace of Fx reserves loss does not abate. At that stage, should authorities become concerned by the heavy wall of payments, there is a risk they would then enter into negotiations with bondholders to restructure.

Heavy payments in coming years create pressure

As it stands, Lebanon has to make a total of US\$45.5bn of future Eurobond principal and coupon payments. A significant amount of these payments are in the coming years (30% of these payments are due in 2019-22).

Chart 5: Annual Lebanon Eurobond principal and payments 2019 - 2037

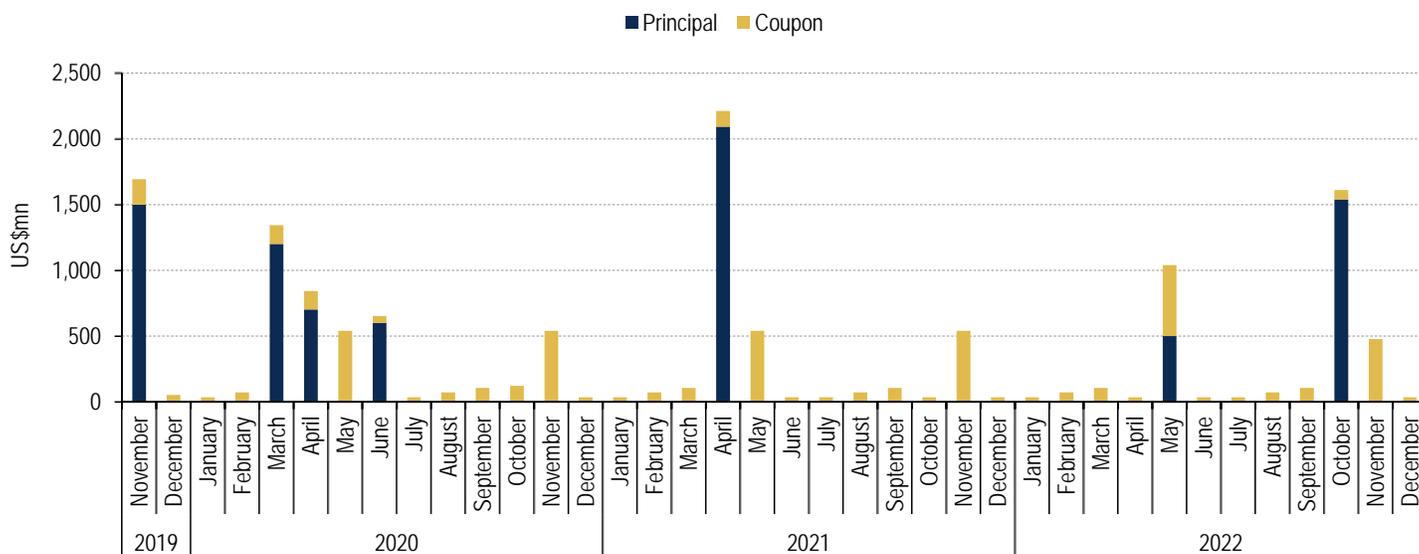


Source: Bloomberg. Shows remainder of 2019 as of today.

Authorities have emphasized 2019 maturities will be paid

The stock of Fx reserves today, the large BdL holdings of the bond (possibly around US\$0.6bn), and statements from authorities suggest the US\$1.5bn November 2019 maturity can be paid on the 28th. This is also reflected in the bond's near-par cash price (offered around 99).

Chart 6: Monthly Lebanon Eurobond principal and payments



Source: Bloomberg. November 2019 is remainder as of today.

This is followed by three months of minimal payments

The three months that follow November see minimal external payments, with just US\$157mn of coupon payments. However, the flow of deposits will be crucial to monitor during this time. As mentioned above, this could deplete reserves to concerning levels. However, we do not see pressure specifically from Eurobond coupon payments causing issues.

March – June 2020: vulnerabilities increase with large step-up in maturities

The situation then turns. March to June 2020 inclusive sees US\$2.5bn of principal payments and US\$875mn of coupon payments. It seems reasonable to group these payments together. We think it is relatively unlikely that Lebanon would pay March's maturity but then decide not to pay April's maturity. All in, if there is a hypothetical political decision to halt payments, we see a high risk of it occurring near March.

Road clearer once again from July onwards...until April 2021

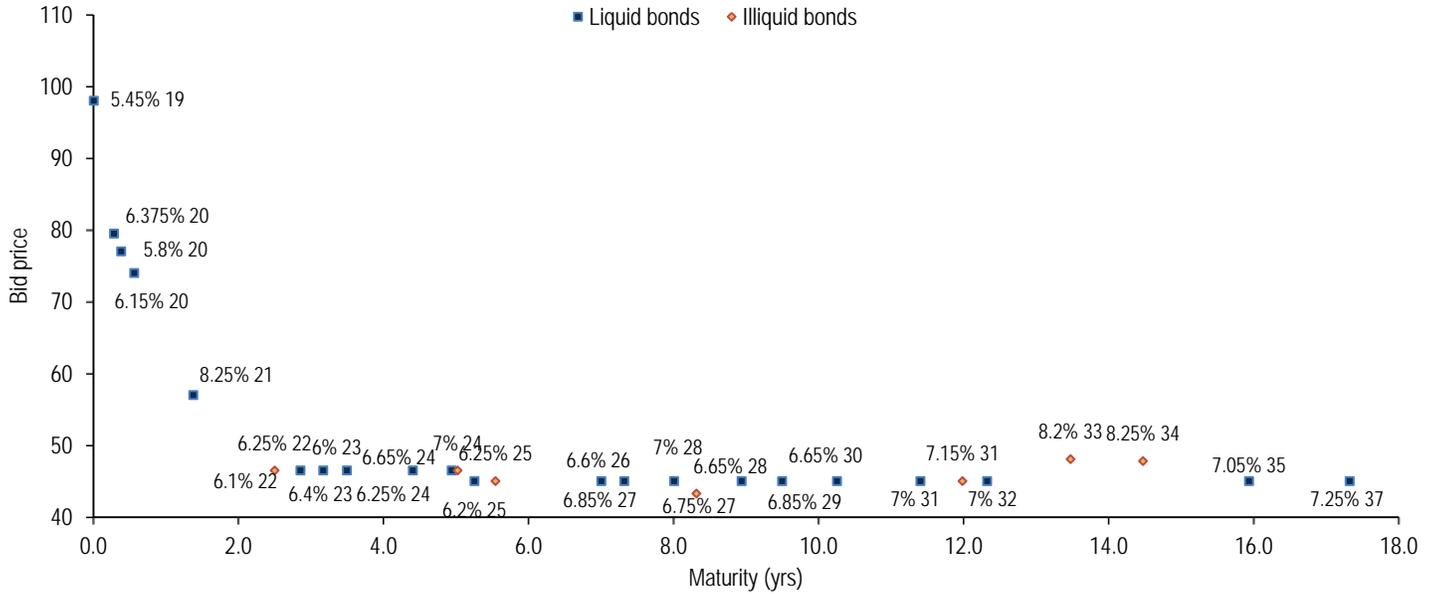
If Lebanon can make it through June, the payment schedule will look somewhat clear once again. From July 2020 – March 2021 inclusive, there are US\$1.1bn of coupon payments. However, April & May 2021 see a combined US\$2.8bn of principal and coupon payments, again leading to a risk of a potential restructuring.

On a related note, Lebanon has foreign currency loans coming due; we estimate a little under US\$300mn of principal and coupons in 2020, although we have no information on exact timing.

Market pricing = 2020 has risks, but default could be later

Current market prices suggest the market sees almost no risk of a default in 2019, with the November '19 maturity only 1-2pts away from par. However, for all maturities after this, the likelihood of a default increases sharply until 2022. From 2022 maturities onwards, bonds are all generally trading between 45 and 47, suggesting investors see a default or restructuring as more likely before this point.

Chart 7: Bid cash price vs. maturity



Source: Bloomberg.

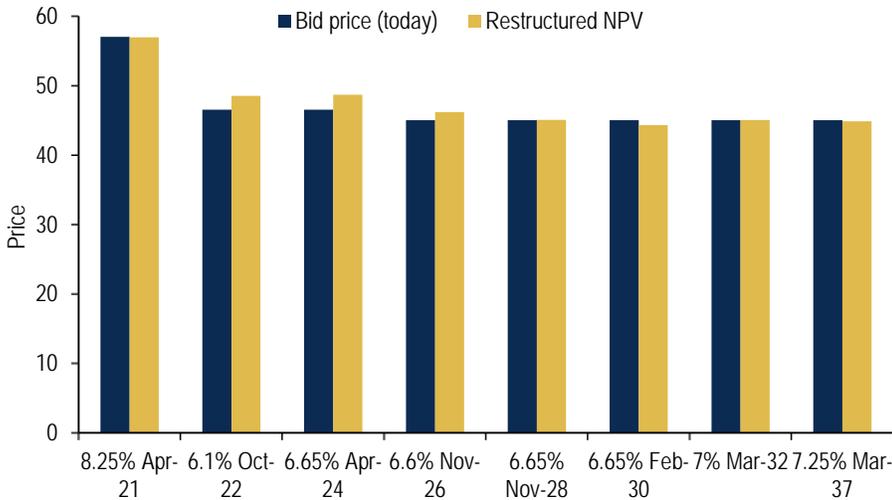
Restructuring scenarios – impact on NPVs

Current prices suggest 35% principal and coupon cut = 120 – 130% debt to GDP

There are clearly multiple hypothetical restructuring scenarios available to Lebanon, if they decide to proceed with such an operation. Such a situation would likely involve a combination of principal face-value cuts (given high debt stock), coupon reductions (for lower deficits), and maturity extensions (given pressure on Fx reserves in the near-term).

We find that current 2021+ bond prices could be justified by assuming a 35% principal face-value cut, a 35% reduction in coupons, and a 5y maturity extension on each bond, assuming a 11% exit yield. To a degree, it can also help explain why longer-dated bonds are trading a few pts below the belly.

Chart 8: NPV under 35% principal face-value cut, 35% coupon reduction, and 5y maturity extension



Source: BofA Merrill Lynch Global Research, Bloomberg

We applied such assumptions to our debt-sustainability analysis earlier in the report (scenarios 3 and 3a, 'market pricing'). This would bring debt down to 120 - 130% of GDP average. With debt still high, exit yields would be raised. This is a possible scenario, but are we inclined to expect larger cuts, particularly if Lebanon is to receive external support. Overall, we think current pricing is still too optimistic given the situation.

Potential restructuring approach 1 - new bond basket

Most bonds from 2022 onwards trade at relatively similar cash prices. We mentioned earlier that longer-dated bonds trade a few points below 2022 – 2024 bonds, but the difference is fairly small. This could suggest the market expects all bondholders could potentially receive the same new basket of bonds in a hypothetical restructuring.

This would be similar to the Ukraine 2015 restructuring for example; the majority of bondholders got the same package of new 2019 – 2027 bonds. Likewise, in the ongoing Barbados restructuring, all bondholders will potentially get a new 2029 bond regardless of their original maturity.

In macro scenarios 4 and 4a 'typical IMF program', we assume 50% principal face-value and coupon cuts, and also assume maturities would need to be delayed given liquidity constraints. For this exercise, we assume that one new bond is created, although given the amount of debt, clearly a large basket of new bonds is more likely.

Such a bond would have half the average coupon rate of the old bonds (ie. 3.5%) and 50% of the principal. We have also assumed an additional 5 years of maturity from the current 7.6 years average maturity. In this example, the NPV for a holder of one 100pt notional current bond would be around 33pt (12% exit yield) to 39pt (10% exit yield), still below current prices.

Potential restructuring approach 2 - change terms of existing bonds

Bonds could also see their individual terms changed; for example, increasing all bond maturities by a number of years. This would show similarities to Uruguay's 2003 restructuring which included extending principal payments by 5 years on average. Notional and coupons were unaffected.

In the tables below, we apply various restructuring scenarios to a cross-selection of liquid bonds across maturities. We have also assumed no suspension of payments, or changes to coupon dates for example.

Recent restructuring exit yields around 9%, but Lebanon likely to be higher

Exit yields are critical components of restructuring NPV calculations. We provide three different levels in the tables below: 10%, 12%, and 15%.

Recent EM restructuring examples such as Mozambique (2019), Belize (2017), and Ukraine (2015) have seen exit yields of around 9%. A similar level could be used for Lebanon. However, we expect investors are likely to remain concerned by Lebanon's long-term economic model. There is no concrete Mozambique gas-field equivalent at this stage as commercial hydrocarbon exploration in Lebanon is likely still years away.

Similarly, Lebanon's exit yield will likely depend on the degree on restructuring. For instance, if the USD peg is maintained, this might result in a lower principal face-value cut in the near-term, but would mean the country could still likely face large, unsustainable external financing needs. As a result, using higher exit yields seems justified. Even levels as high as 15% are similar to yields seen in cases such as Greece's 2012 restructuring.

1) Principal face-value cut scenarios

All of the scenarios below show NPVs under various principal face-value cuts, but in this first scenario, we change no other terms (e.g., coupons in US\$ terms remain unchanged). A simple principal face-value cut would clearly reduce the government's high debt stock, which would be particularly important in a potential de-peg. Nonetheless, such a scenario does not tackle the liquidity challenges posed by near-term maturities, nor the high coupon expenses. As a result, we think it is less likely.

At lower face-value cuts, the front-end sees higher NPVs, although at larger face cuts, the impact of (unchanged) coupons benefits longer-dated bonds.

Exhibit 1: Principal face-value cut restructuring model

Bond	Bid price	Exit yield = 10%					Exit yield = 12%					Exit yield = 15%				
		Principal face-value cut					Principal face-value cut					Principal face-value cut				
		0%	25%	50%	70%	80%	0%	25%	50%	70%	80%	0%	25%	50%	70%	80%
5.8% Apr-20	77.0	98.4	74.3	50.3	31.0	21.4	97.7	73.8	49.9	30.8	21.2	96.6	73.0	49.3	30.4	21.0
8.25% Apr-21	57.0	97.8	75.9	54.1	36.6	27.8	95.3	74.1	52.8	35.7	27.2	91.8	71.4	50.9	34.5	26.3
6.1% Oct-22	46.5	90.5	71.6	52.7	37.5	30.0	86.1	68.1	50.2	35.9	28.7	79.9	63.4	46.8	33.6	27.0
6.65% Apr-24	46.5	88.3	72.0	55.8	42.7	36.2	82.1	67.1	52.2	40.2	34.2	73.7	60.5	47.3	36.7	31.4
6.6% Nov-26	45.0	83.2	70.5	57.9	47.8	42.8	74.9	63.8	52.8	43.9	39.5	64.3	55.3	46.2	38.9	35.3
6.65% Nov-28	45.0	80.5	70.0	59.6	51.2	47.0	71.1	62.3	53.5	46.4	42.9	59.6	52.7	45.9	40.4	37.6
6.65% Feb-30	45.0	78.8	69.6	60.4	53.1	49.4	68.9	61.3	53.8	47.7	44.7	56.9	51.3	45.6	41.0	38.8
7% Mar-32	45.0	79.0	71.5	64.0	58.0	55.0	68.2	62.3	56.3	51.6	49.2	55.6	51.4	47.2	43.8	42.2
7.25% Mar-37	45.0	77.6	72.9	68.3	64.6	62.8	65.6	62.3	59.0	56.4	55.0	52.5	50.5	48.4	46.8	46.0

Source: BofA Merrill Lynch Global Research. Colour reflects PV being above/below current price. Shows clean prices. Coupons in US\$ terms remain the same even as principal changes.

2) Haircut & maturity extension scenarios

The next scenario incorporates a maturity extension and haircut, although coupons again remain unchanged. Earlier in the report, we examined scenarios 2 and 2a 'soft IMF program', a restructuring with a 30% face-value haircut which would keep debt at around 150-160% of GDP (dependent on Fx devaluation). Given Fx reserves pressure, we include a 5y bond maturity extension in this scenario.

With debt still at concerning levels, we would expect high exit yields. However, even at 15% exit yield, NPVs are generally slightly above current prices for 25-50% principal face-value cuts. Nonetheless, we see this scenario as fairly unlikely as it has a limited impact on pushing the country towards a more financially sustainable path. We also think it is fairly unlikely that principal would be reduced, and coupons left unchanged.

Similar to 1) above, lower face-value cuts support shorter-dated bonds, but the long-end outperforms in larger face cuts.

Exhibit 2: Principal face-value cut & 5y maturity extension restructuring model

Bond	Bid price	Exit yield = 10%					Exit yield = 12%					Exit yield = 15%				
		Principal face-value cut					Principal face-value cut					Principal face-value cut				
		0%	25%	50%	70%	80%	0%	25%	50%	70%	80%	0%	25%	50%	70%	80%
5.8% Apr-20	77.0	82.8	68.0	53.3	41.4	35.5	75.9	62.6	49.2	38.5	33.2	66.8	55.3	43.9	34.7	30.1
8.25% Apr-21	57.0	91.9	78.5	65.0	54.3	48.9	83.6	71.7	59.8	50.3	45.5	72.9	62.9	53.0	45.0	41.1
6.1% Oct-22	46.5	79.1	67.5	55.9	46.6	41.9	70.5	60.5	50.5	42.5	38.5	59.7	51.7	43.6	37.2	34.0
6.65% Apr-24	46.5	79.9	69.9	59.9	51.9	47.9	70.3	61.9	53.6	46.9	43.6	58.6	52.2	45.8	40.6	38.1
6.6% Nov-26	45.0	76.5	68.8	61.0	54.8	51.7	66.1	59.9	53.8	48.8	46.4	53.9	49.5	45.1	41.5	39.8
6.65% Nov-28	45.0	75.1	68.7	62.3	57.1	54.6	64.2	59.3	54.3	50.4	48.4	51.7	48.4	45.1	42.4	41.1
6.65% Feb-30	45.0	74.0	68.4	62.8	58.2	56.0	62.9	58.7	54.5	51.1	49.4	50.4	47.7	44.9	42.7	41.6
7% Mar-32	45.0	75.5	70.9	66.3	62.6	60.8	63.8	60.5	57.2	54.5	53.2	51.0	49.0	46.9	45.3	44.5
7.25% Mar-37	45.0	75.6	72.8	69.9	67.7	66.5	63.3	61.5	59.6	58.1	57.4	50.3	49.4	48.4	47.6	47.2

Source: BofA Merrill Lynch Global Research. Colour reflects PV being above/below current price. Shows clean prices. Coupons in US\$ terms remain the same even as principal changes.

It is a fairly similar story for a 10y maturity extension:

Exhibit 3: Principal face-value cut & 10y maturity extension restructuring model

Bond	Bid price	Exit yield = 10%					Exit yield = 12%					Exit yield = 15%				
		Principal face-value cut					Principal face-value cut					Principal face-value cut				
		0%	25%	50%	70%	80%	0%	25%	50%	70%	80%	0%	25%	50%	70%	80%
5.8% Apr-20	77.0	73.2	64.2	55.1	47.8	44.2	63.7	56.3	48.8	42.9	39.9	52.3	46.7	41.2	36.7	34.5
8.25% Apr-21	57.0	88.2	80.0	71.8	65.2	61.9	77.0	70.4	63.7	58.4	55.8	63.7	58.8	54.0	50.2	48.2
6.1% Oct-22	46.5	72.1	65.0	57.8	52.1	49.3	61.8	56.2	50.6	46.2	43.9	49.9	46.0	42.1	39.0	37.4
6.65% Apr-24	46.5	74.7	68.6	62.4	57.5	55.1	63.7	59.1	54.4	50.7	48.8	51.2	48.1	45.0	42.5	41.3
6.6% Nov-26	45.0	72.5	67.7	63.0	59.1	57.2	61.2	57.8	54.3	51.6	50.2	48.8	46.6	44.5	42.8	41.9
6.65% Nov-28	45.0	71.8	67.8	63.9	60.7	59.2	60.3	57.6	54.8	52.6	51.5	47.9	46.3	44.7	43.4	42.7
6.65% Feb-30	45.0	71.1	67.7	64.2	61.4	60.0	59.6	57.2	54.9	53.0	52.0	47.3	45.9	44.6	43.5	43.0
7% Mar-32	45.0	73.4	70.5	67.7	65.5	64.3	61.4	59.5	57.7	56.2	55.5	48.7	47.8	46.8	46.0	45.6
7.25% Mar-37	45.0	74.4	72.7	70.9	69.5	68.8	62.0	61.0	60.0	59.1	58.7	49.3	48.8	48.3	48.0	47.8

Source: BofA Merrill Lynch Global Research. Colour reflects PV being above/below current price. Shows clean prices. Coupons in US\$ terms remain the same even as principal changes.

3) Adding coupon reductions – the more likely option

With annual interest payments at around 9% of GDP, coupon reduction is likely to play an important role in any potential restructuring. Below, we have included a 50% reduction in all coupons.

Exhibit 4: Principal face-value cut & 50% coupon reduction restructuring model

Bond	Bid price	Exit yield = 10%					Exit yield = 12%					Exit yield = 15%				
		Principal face-value cut					Principal face-value cut					Principal face-value cut				
		0%	25%	50%	70%	80%	0%	25%	50%	70%	80%	0%	25%	50%	70%	80%
5.8% Apr-20	77.0	97.4	73.3	49.2	30.0	20.3	96.7	72.7	48.8	29.7	20.2	95.6	72.0	48.3	29.4	19.9
8.25% Apr-21	57.0	92.6	70.7	48.9	31.4	22.7	90.3	69.0	47.7	30.6	22.1	86.9	66.4	45.9	29.5	21.3
6.1% Oct-22	46.5	83.1	64.2	45.3	30.1	22.5	78.9	61.0	43.0	28.7	21.5	73.0	56.5	40.0	26.7	20.1
6.65% Apr-24	46.5	76.7	60.4	44.1	31.1	24.6	71.0	56.0	41.0	29.1	23.1	63.3	50.1	36.9	26.3	21.0
6.6% Nov-26	45.0	66.8	54.2	41.6	31.5	26.4	59.6	48.5	37.4	28.6	24.2	50.3	41.2	32.2	24.9	21.3
6.65% Nov-28	45.0	61.2	50.7	40.2	31.9	27.7	53.2	44.4	35.6	28.5	25.0	43.5	36.7	29.8	24.3	21.6
6.65% Feb-30	45.0	57.8	48.6	39.4	32.0	28.4	49.6	42.0	34.4	28.4	25.4	39.8	34.1	28.5	23.9	21.7
7% Mar-32	45.0	54.5	47.0	39.5	33.5	30.5	46.0	40.1	34.1	29.4	27.0	36.2	32.0	27.8	24.4	22.8
7.25% Mar-37	45.0	48.0	43.4	38.8	35.1	33.2	39.5	36.1	32.8	30.2	28.8	30.3	28.3	26.3	24.6	23.8

Source: BofA Merrill Lynch Global Research. Colour reflects PV being above/below current price. Shows clean prices.

However, even this scenario is unlikely to be sufficient, and maturity extensions could also be incorporated given the country’s liquidity constraints.

Such a scenario would show some similarities with the Belize 2017 restructuring. The ‘Superbond 2.0’ which amortised over 2019-38 saw terms changed so that the first principal amortisation was delayed until 2030; the future coupon was also reduced (from 6.767% to 4.9375%). However, we acknowledge that the principal face-value was unchanged in this case (Belize’s government debt at c.100% of GDP pre-restructuring was much lower than Lebanon’s).

It is also similar to the Ukraine 2015 model where investors took a 20% nominal haircut and longer maturities, although in this case most investors were given an identical new basket of bonds. The coupon %-rates in the new bonds were fairly similar to the old bonds, but given the principal haircut, there was still a ‘haircut’ in coupons. Investors were also given GDP-warrants.

Macro scenarios 4 and 4a ‘likely IMF program’ incorporate this type of restructuring assumption which we see as the most likely of the ‘managed’ restructuring scenarios. Since the fiscal picture would look more sustainable, we think medium exit yields could be applied.

We start with a 50% principal face-value cut, 50% coupon reduction, and 5y extension under a 12% exit yield (blue box below). 2022+ bonds fall to the low to mid-30s in this scenario. However, Investors may feel more confident about Lebanon, and a 10% exit yield sees losses fall to 5 – 6pt.

We also acknowledge the IMF may not require such large reductions (particularly given Lebanon’s geopolitical characteristics). A situation including 40% principal and coupon cuts with only a 2y maturity extension, for example, sees 2022 – 2025 bonds stay close to current levels, whilst using a 10% exit yield begins to see upside of as much as 5pt.

Exhibit 5: Principal face-value cut, 50% coupon reduction, and 5y maturity extension restructuring model

Bond	Bid price	Exit yield = 10%					Exit yield = 12%					Exit yield = 15%				
		Principal face-value cut					Principal face-value cut					Principal face-value cut				
		0%	25%	50%	70%	80%	0%	25%	50%	70%	80%	0%	25%	50%	70%	80%
5.8% Apr-20	77.0	71.0	56.2	41.4	29.6	23.7	64.7	51.3	38.0	27.3	21.9	56.4	44.9	33.4	24.2	19.6
8.25% Apr-21	57.0	72.8	59.4	45.9	35.2	29.8	65.6	53.7	41.8	32.3	27.5	56.3	46.4	36.4	28.5	24.5
6.1% Oct-22	46.5	62.8	51.2	39.6	30.3	25.6	55.3	45.3	35.2	27.2	23.2	45.9	37.9	29.8	23.4	20.2
6.65% Apr-24	46.5	59.9	49.9	39.9	31.9	28.0	51.9	43.5	35.2	28.5	25.1	42.1	35.7	29.3	24.2	21.6
6.6% Nov-26	45.0	53.8	46.0	38.3	32.1	29.0	45.4	39.2	33.1	28.1	25.6	35.7	31.3	26.9	23.4	21.6
6.65% Nov-28	45.0	50.4	44.0	37.5	32.4	29.8	42.0	37.0	32.1	28.2	26.2	32.5	29.2	25.9	23.2	21.9
6.65% Feb-30	45.0	48.3	42.7	37.0	32.5	30.2	39.9	35.7	31.5	28.1	26.4	30.7	28.0	25.2	23.0	21.9
7% Mar-32	45.0	47.0	42.4	37.8	34.1	32.2	38.6	35.2	31.9	29.3	27.9	29.6	27.5	25.5	23.9	23.0
7.25% Mar-37	45.0	43.5	40.6	37.8	35.5	34.4	35.4	33.5	31.7	30.2	29.4	27.2	26.2	25.2	24.4	24.0

Source: Merrill Lynch Global Research. Colour reflects PV being above/below current price. Shows clean prices.

We also show such a potential restructuring scenario with a 10y maturity extension instead. Our 50% principal face-value and coupon cuts again lead to sharp losses.

Exhibit 6: Principal face-value cut, 50% coupon haircut, and 10y maturity extension restructuring model

Bond	Bid price	Exit yield = 10%					Exit yield = 12%					Exit yield = 15%				
		Principal face-value cut					Principal face-value cut					Principal face-value cut				
		0%	25%	50%	70%	80%	0%	25%	50%	70%	80%	0%	25%	50%	70%	80%
5.8% Apr-20	77.0	54.8	45.7	36.6	29.4	25.7	46.8	39.3	31.9	25.9	22.9	37.3	31.7	26.2	21.7	19.5
8.25% Apr-21	57.0	60.6	52.4	44.1	37.5	34.2	51.8	45.2	38.5	33.2	30.5	41.5	36.6	31.8	28.0	26.0
6.1% Oct-22	46.5	50.3	43.2	36.1	30.3	27.5	42.1	36.5	30.9	26.4	24.2	32.7	28.8	24.9	21.8	20.3
6.65% Apr-24	46.5	49.6	43.5	37.4	32.4	30.0	41.2	36.5	31.9	28.1	26.3	31.8	28.7	25.6	23.1	21.9
6.6% Nov-26	45.0	45.8	41.0	36.2	32.4	30.5	37.5	34.0	30.6	27.8	26.5	28.7	26.5	24.4	22.7	21.8
6.65% Nov-28	45.0	43.8	39.8	35.9	32.7	31.2	35.7	32.9	30.2	28.0	26.9	27.2	25.6	24.0	22.7	22.0
6.65% Feb-30	45.0	42.5	39.0	35.6	32.8	31.4	34.5	32.2	29.8	27.9	27.0	26.3	25.0	23.6	22.6	22.0
7% Mar-32	45.0	42.3	39.5	36.7	34.4	33.3	34.4	32.6	30.7	29.2	28.5	26.4	25.4	24.4	23.6	23.2
7.25% Mar-37	45.0	40.7	38.9	37.2	35.8	35.1	33.1	32.1	31.0	30.2	29.8	25.6	25.1	24.6	24.3	24.1

Source: BofA Merrill Lynch Global Research. Colour reflects PV being above/below current price. Shows clean prices.

Disorderly scenario – substantial downside

Our macro scenarios 1 and 1a ‘disorderly’ do not involve foreign support and authorities could potentially be pushed into haircuts to get debt down to sustainable levels. This in itself would create further problems for the banking sector.

Evidently, in such a disorderly scenario, it is hard to predict how the country would deal with bonds, but we think it is reasonable to price-in both large coupon and principal face-value cuts. Similarly, yields used to discount would remain high. We think prices falling to the 20s is not unrealistic. Implied NPVs could suggest even lower prices, but we see Venezuela (pre-bond trading sanctions/EMBI removal) as a potential example of market pricing in such a scenario.

Thinking outside of the box - incentivizing creditor participation

Clearly, many of these restructuring scenarios mentioned above, particularly ones including principal and coupon cuts plus maturity extensions, impose a very heavy burden on creditors. This could lead to prolonged negotiations. Recent restructurings in high-debt countries such as Mozambique, Barbados, and Ukraine have been softer in comparison to some of the outcomes we have discussed above.

'Carrots' such as cash participation fees can help reduce the burden, although we imagine Lebanon's desire to maintain Fx reserves (given the possibility of deposit outflows) could limit potential here.

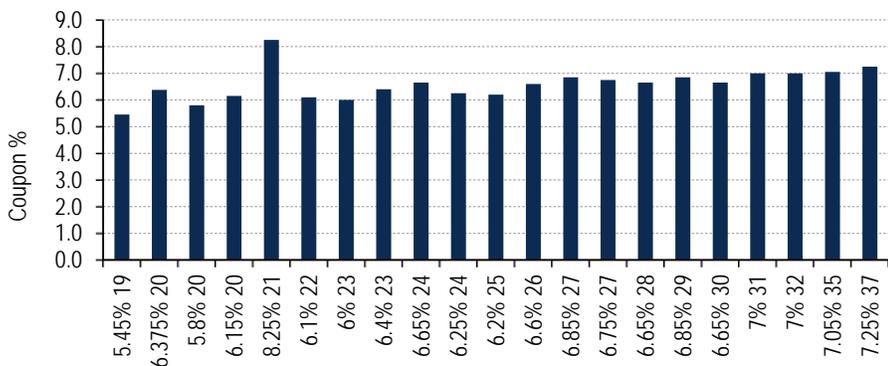
Given that Lebanon's vulnerabilities are unlikely to disappear overnight, we imagine creditors would be keen to include loss reinstatement features in any potential restructuring. This would effectively mean that, if another restructuring occurred in the future, negotiations would be based on the original bond principal instead.

Lastly, even value recovery instruments could be considered. The Ukraine warrants receive plenty of attention currently, but there are multiple examples in history of GDP-linked warrants such as Costa Rica (1989), Bulgaria (1994), Bosnia & Herzegovina (1997), Argentina (2005/10), and Greece (2012).

Incorporating coupons into the equation

Lebanon bonds (at least tradeable ones) currently trade at broadly similar cash prices from 2022 onwards, and this stage the market does not appear to be differentiating between different coupons. This partly reflects the fact that most coupons are relatively similar, but also may reflect an expectation that in a potential restructuring, accrued interest/coupon level will simply not be part of negotiations (ie a holder of a 6% coupon bond and a 7% coupon bond would be treated identically).

Chart 9: Liquid LEBAN Eurobonds annual coupon



Source: Bloomberg

That is entirely possible, but we note there are previous examples of EM restructurings where investors have received their past due interest (sometimes with a haircut). For example, under the current proposal, Barbados bondholders would receive past due interest since the most recently-paid coupon (which was almost 2 years ago) in line with the specific coupon of their bond holding. Whilst there can be a cash consideration, we would expect any potential past due interest (PDI) in Lebanon would be capitalized.

Timing of coupons also important

If investors expect a restructuring but still want to own bonds (e.g. they believe recovery value is higher than current prices), the timing of coupons is important. We have explained earlier why the March 2020 maturity is a key pressure point. Investors who are long would presumably prefer to have a full coupon payment before a potential restructuring date.

Past due interest can be haircut

Furthermore, they would want it as close as possible to that date to minimize accrued interest between the last coupon date and the restructuring date. It is quite possible - certainly given historical restructurings - that past due interest would be haircut.

The table below demonstrates this point. We show profit/loss for a US\$1mn total investment today (i.e. which has to cover the dirty price). We assume Lebanon hypothetically stops payments on 9 March (the US\$1.2bn maturity). After 9 months of negotiations, we assume holders end up with the same basket of bonds with a market value of 50% of original notional. Bondholders would also submit their PDI.

We have presented 2 scenarios below, one with 100% PDI paid, and another with a 50% haircut on PDI. We have made the assumption that the haircut on PDI is since the previous paid coupon date (ie not the same date across bonds). This assumption is important, and we recognize that another possibility is that only accrued interest since the missed payment date (9 March in this example) could be haircut, for example.

Exhibit 7: Hypothetical restructuring scenario – impact of accrued interest

Bond	Bid price (clean)	Notional ('000s) for US\$1mn investment	Coupons paid (for \$1mn investment)					Mar	Jan 1st 2021 = restructuring completed						
			2019		2020				Potential scenario 1		Potential scenario 2				
			Nov	Dec	Jan	Feb	New bond basket market value = 50%		Accrued interest (100% recovery)	Total value	Profit/Loss	New bond basket market value = 50%	Accrued interest (50% recovery)	Total value	Profit/Loss
6.375% 20	79.5	1,237					39,417	618,308	103,361	721,669	-278,331	618,308	51,680	669,988	-330,012
5.8% 20	77.0	1,287						643,662	90,635	734,296	-265,704	643,662	45,317	688,979	-311,021
6.15% 20	74.0	1,304		40,108				652,163	82,667	734,830	-225,062	652,163	41,334	693,497	-266,395
8.25% 21	57.0	1,724						861,988	173,439	1,035,428	35,428	861,988	86,720	948,708	-51,292
6.1% 22	46.5	2,139						1,069,354	148,218	1,217,572	217,572	1,069,354	74,109	1,143,463	143,463
6% 23	46.5	2,062			61,873			1,031,211	114,808	1,146,020	207,892	1,031,211	57,404	1,088,615	150,488
6.4% 23	46.5	2,013	64,406					1,006,351	140,979	1,147,330	211,736	1,006,351	70,489	1,076,841	141,247
6.65% 24	46.5	2,121						1,060,489	168,079	1,228,568	228,568	1,060,489	84,039	1,144,528	144,528
6.25% 24	46.5	2,132						1,066,054	154,356	1,220,410	220,410	1,066,054	77,178	1,143,232	143,232
6.2% 25	45.0	2,148				66,591		1,074,050	112,835	1,186,885	253,476	1,074,050	56,417	1,130,467	197,058
6.6% 26	45.0	2,071	68,347					1,035,554	149,223	1,184,777	253,124	1,035,554	74,612	1,110,166	178,512
6.85% 27	45.0	2,165					74,135	1,082,258	188,631	1,270,889	270,889	1,082,258	94,316	1,176,573	176,573
6.75% 27	45.0	2,070	69,847					1,034,768	152,111	1,186,879	256,726	1,034,768	76,055	1,110,824	180,671
6.65% 28	45.0	2,202						1,101,130	169,638	1,270,768	270,768	1,101,130	84,819	1,185,949	185,949
6.85% 29	45.0	2,066	70,754					1,032,910	154,873	1,187,783	258,537	1,032,910	77,437	1,110,346	181,101
6.65% 30	45.0	2,142				71,226		1,071,065	120,688	1,191,753	262,979	1,071,065	60,344	1,131,409	202,635
7% 32	45.0	2,163					75,716	1,081,653	192,654	1,274,307	274,307	1,081,653	96,327	1,177,980	177,980
7.05% 35	45.0	2,201						1,100,564	179,750	1,280,314	280,314	1,100,564	89,875	1,190,439	190,439
7.25% 37	45.0	2,161					78,347	1,080,646	199,349	1,279,995	279,995	1,080,646	99,675	1,180,321	180,321

Source: BofA Merrill Lynch Global Research, Bloomberg. Excludes illiquid bonds. Excludes financing costs. November coupon payments are later in the month vs. today.

In scenario 1 (100% PDI paid), bonds with high coupons and lower dirty prices perform better, particularly the '32s, '35s, and '37s. However, once we assume the PDI is itself haircut, the situation changes (scenario 2). The 6.65% '30s perform the best in this example. Under our assumptions, holders of this bond get a large coupon in February. There is then a shorter period where PDI can be haircut. The other bond that stands out is the 6.2% '25s for similar reasons. The '37s in this scenario do not get their coupon in March, and the PDI haircut is applied all the way back to 23 Sept 2019, the previous coupon date.

We acknowledge that the potential increase in returns from coupons could well be insignificant versus the impact of different haircuts. The table above also assumes all bonds get the same restructuring package. Similarly, it makes a major assumption in the missed payment date which is critical to bond selection. If Lebanese authorities are concerned by the March 2020 payments, it is entirely possible they could stop paying several weeks, if not months, before this date.

Nonetheless, at this stage, with bonds trading at the same price, we think it makes sense for more constructive investors (or investors doing buy CDS basis packages or RV trades) to buy high-coupon bonds which pay before March.

Best bonds from this perspective = 6.2% '25s, 6.65% '30s, 7.05% '35s.

Notice: The authors of this report are not acting in the capacity of a legal adviser, and the information contained herein is not intended to constitute legal advice. You should consult with your legal adviser as to any issues of law relating to the subject matter of this report.

Recovery unlikely to be improved through BdL assets

Previous restructurings (e.g. Argentina) have seen investors seek to improve recovery via foreign sovereign assets. In the case of Lebanon, the BdL's gold reserves are currently held at Fort Knox in the US, leading to a theoretical possibility that this gold could be seized to help bond recovery values. Other assets include Middle East Airlines (majority owned by the BdL) for example.

However, given recent precedent, we think this is unlikely: we assume acts such as the US Foreign Sovereign Immunities Act would prevent such an operation. Similarly, the UN has the 2004 Convention on the Jurisdictional Immunities of States and their Property which has 22 parties including certain EU countries.

The **US Foreign Sovereign Immunities Act** section 1611 b) states that the property (held for its own account) of a foreign central bank or monetary authority shall be immune from attachment and execution, unless its immunity has been explicitly waived.

As an example of this in action, in July 2011, the US Court of Appeals, Second Circuit, ruled that Argentina Central Bank assets held at the Federal Reserve Bank of New York were immune from attachment and execution¹.

Gold also not a solution for BdL's issues

One other possible scenario is that this gold stock could be a possible 'fix' for the BdL's issues. For example, gold reserves could be used to guarantee deposits from GCC neighbors. However, at this stage, we think this strategy is unlikely to be pursued. Law 42 from 1986 prevents the BdL from disposing of its gold assets under any circumstances, directly or indirectly, unless there is legislation passed by parliament to allow this.

Staying on the subject of the BdL, there has been some speculation that the US\$1.4bn attracted by the BdL in August as part its US\$50bn Fx CD program could have been deemed senior to normal depositors. However, the prospectus clarifies that these are *pari passu* with other liabilities.

Terms of Lebanon eurobonds

Lebanon Eurobonds are issued under New York law and have broadly standard terms including cross-default, negative pledge, and grace periods, for example. A key focus for clients, given the potential for restructuring, has been collective action clauses. We examine the customary key bond features below:

¹ Case details can be read here: <https://casetext.com/case/nml-capital-ltd-v-bcra>

Notice: the following bond feature information is a summary of customary terms taken solely from Lebanon Eurobond prospectuses: actual prospectus terms may vary.

Cross default: Yes, on any public external indebtedness of at least US\$20mn equivalent. *External indebtedness is defined as “any notes, debentures, bonds, or other similar securities with a stated maturity of more than one year from their date of issue which by their terms are payable, or confer a right to receive payment, in any currency other than the lawful currency of the Republic”.*

Grace period: 7 days for principal and 30 days for coupons.

As a reminder, under standard Emerging Europe& Middle East sovereign CDS, the grace period extension is applicable, so the LEBAN 19 June 2020s would be covered by 6m CDS (maturity: 20 June 2020), even if the end of the grace period is 26 June 2020.

Declaration of acceleration: 25% of principal.

Modifications / collective action clauses: The fiscal agency agreement allows meetings to be convened to modify conditions with 75% holder consent. This includes changing amounts payable, reducing/cancelling principal, and modifying currency of payment. Any such resolution passed in this manner would be binding on all holders regardless of whether they voted in favour or not.

However, there is no collective action clause across several classes, with the most recent prospectus specifically highlighting that this type of clause does not apply. As a result, each bond would be restructured series by series.

Ownership structure of each bond could thus be an important factor. We presume authorities could hypothetically approach all bondholders across the different series with a single restructuring proposal. Nonetheless, it is possible that authorities could try and treat bonds dominated by local ownership differently to other bonds.

Lebanon CDS – focusing on the triggers

Lebanon CDS has been actively traded and would play an important role in any potential restructuring. We summarize customary credit events for Standard Emerging European & Middle Eastern Sovereign CDS below:

- Failure to pay (Grace Period Extension is applicable)
- Obligation acceleration
- Repudiation/moratorium
- Restructuring

It is the last of these which generally sees most focus, particularly in sovereigns since they often involve exchanges. According to the ISDA 2014 ISDA definitions, a restructuring involves one of the following events which must be binding on all holders.

- A reduction in interest or principal
- A postponement or deferral of interest or principal
- A change in the ranking of an obligation
- A change in the currency of payment (ex-G10 currencies)

Focusing on exchanges, voluntary exchanges are unlikely to trigger CDS. However, if an exchange (which is detrimental to bondholders) becomes binding, this is likely to trigger CDS. The 2014 ISDA definitions include:

- “If an exchange has occurred, the determination as to whether one of the events described...[above]...has occurred will be based on a comparison of the terms of the Bond immediately prior to such exchange and the terms of the resulting obligations immediately following such exchange”

Recent restructurings, such as Barbados currently, have included an extraordinary resolution which allows for a majority (usually 75%) to vote through a bond exchange which is then binding on all holders. In the case of Barbados, bondholders will potentially exchange into longer-dated bonds with NPV losses, so the exchange would lead (however indirectly) to the events listed above. We thus assume any such similar operation would trigger protection.

We acknowledge, however, that one somewhat grey area is if in a scenario where 100% of bondholders voluntarily accepted an exchange. It could be argued this could be ‘binding’ on all holders, but this remains an open question. Nonetheless, it would be a fairly rare situation to have no holdouts at all.

Valuation & risk

Lebanon (LEBAN)

Lebanon faces a highly uncertain near-term outlook and we are concerned a restructuring could see bond prices fall lower. However, political willingness to pay is unclear and could potentially support bonds near-term. There are upside scenarios in softer restructurings which are possible given Lebanon's geopolitical importance. Amidst uncertainty, we Marketweight on bonds.

Upside risks come from the potential formation of a technocratic Cabinet, an end to mass protests, and a return of external depositors in particular. Fiscal consolidation could also lead to renewed donor support.

Downside risks stem from pressure on Fx reserves from deposit flight, ongoing mass protests, uncertain political direction and the potential for a disorderly adjustment.

Analyst Certification

I, Andrew MacFarlane, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my 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.

Disclosures

Important Disclosures

Credit opinion history

Lebanon / LEBAN

Sovereign	Date [^]	Action	Recommendation
Lebanon / LEBAN	31-Oct-2016		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 Merrill Lynch Credit Opinion Key."

BofA Merrill Lynch Credit Opinion Key

BofA Merrill Lynch Global Research provides recommendations on an issuer's bonds (including corporate and sovereign external debt securities), 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 Merrill Lynch 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. CDS and equity preferreds are rated separately and issuer recommendations do not apply to them.

BofA Merrill Lynch 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 Merrill Lynch 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 Sep 2019)

Coverage Universe	Count	Percent	Inv. Banking Relationships*	Count	Percent
Buy	8	19.51%	Buy	5	62.50%
Hold	26	63.41%	Hold	11	42.31%
Sell	7	17.07%	Sell	3	42.86%

* Issuers that were investment banking clients of BofA Merrill Lynch 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.

BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Lebanon (Treasury).

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: Lebanon (Treasury).

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: Lebanon, Lebanon (Treasury).

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 Merrill Lynch 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 Merrill Lynch 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 Bank of America Merrill Lynch 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 that may not be offered or sold in one or more states or jurisdictions. Readers of this report are advised that any discussion, recommendation or other mention of such securities is not a solicitation or offer to transact in such securities. Investors should contact their BofA Merrill Lynch representative or Merrill Lynch Global Wealth Management financial advisor for information relating to fixed income securities.

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 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 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 securities 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 discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of 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 Merrill Lynch Global Research policies relating to conflicts of interest are described at <https://rsch.baml.com/coi>

"BofA Merrill Lynch" includes BofA Securities, Inc. ("BofAS"), Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") and its affiliates. Investors should contact their BofA Merrill Lynch representative or Merrill Lynch 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 Merrill Lynch" and "Merrill Lynch" are each global brands for BofA Merrill Lynch Global Research.

Information relating to Non-US affiliates of BofA Merrill Lynch and Distribution of Affiliate Research Reports:

BofAS and/or MLPF&S or 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); BAML 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); 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 (HKSCF); 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): 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): Bank of America Merrill Lynch Banco Multiplo S.A., 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; and 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 HKSCF; 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. Bank of America N.A., Australian Branch (ARBN 064 874 531), AFS License 412901 (BANA Australia) and 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. Bank of America Merrill Lynch International DAC, Frankfurt Branch (BAML DAC (Frankfurt)) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Merrill Lynch entities, including BAML 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 Merrill Lynch group. You may be contacted by a different BofA Merrill Lynch 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.

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 Merrill Lynch.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Merrill Lynch 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 Merrill Lynch, 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 Merrill Lynch 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 Merrill Lynch 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 Merrill Lynch, through business units other than BofA Merrill Lynch 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 Merrill Lynch 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 2019 Bank of America Corporation. All rights reserved. iQprofileSM, iQmethodSM 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 Merrill Lynch 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 Merrill Lynch. BofA Merrill Lynch Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Merrill Lynch 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 Merrill Lynch.

Materials prepared by BofA Merrill Lynch 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 Merrill Lynch, including investment banking personnel. BofA Merrill Lynch has established information barriers between BofA Merrill Lynch Global Research and certain business groups. As a result, BofA Merrill Lynch 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 Merrill Lynch Global Research personnel's knowledge of legal proceedings in which any BofA Merrill Lynch 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 Merrill Lynch 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 Merrill Lynch 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 Merrill Lynch 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 Merrill Lynch 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 Merrill Lynch. 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 Merrill Lynch 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 Merrill Lynch is under no obligation to update this information and BofA Merrill Lynch's ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Merrill Lynch 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 Merrill Lynch 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 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 Merrill Lynch nor any officer or employee of BofA Merrill Lynch accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.

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

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.