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EM Sovereign Credit Strategy | EEMEA

Lebanon Sovereign: Tough Debt Restructuring Awaits

Lebanon has extended a moratorium to all US$31.3 billion worth of eurobonds. CDS has triggered. We showcase what restructuring may look like – we see bonds factoring in a harsh restructuring but would wait for prices sub-15 to add risk.

Lebanon declared a moratorium on payments on US$1.2 billion worth of LEBAN 6.75% March 2020 eurobonds (MoF announcement here), and yesterday it was extended to all US$31.3 billion worth of eurobonds which are outstanding (MoF announcement here). CDS has triggered. The Ministry of Finance will be making an investor presentation this Friday. While we await the restructuring proposal from the Lebanese authorities, we flesh out our key thoughts in this note:

- We see little benefit of a piecemeal approach to debt restructuring, given the complex inter-linkages between the MoF, BDL and domestic banks. Considering the subdued growth outlook, it makes sense to de-lever across the broad public sector.

- Debt restructuring challenges are complex as debt relief of over 100% of GDP is needed. Eurobonds not having single limb CACs risk holdouts on the external side. The debt restructuring burden cannot be shifted to domestic banks either considering that their claim on the public sector is at 7.5x their capital position. Deposits are large at over 300% of GDP but bail-ins are politically sensitive. Meanwhile, deep fiscal reforms are needed and a weaker FX is required to address the external imbalance.

- We provide sensitivities of debt relief possible from haircuts, maturity extension, coupon cuts and holidays, weaker FX across the external and domestic debt, and bank deposits. We argue that a significant amount of savings can be extracted by suspending coupons on domestic debt and by de-dollarising deposits along with embracing a weaker FX.

- We showcase what a soft (relief burden passed to domestic banks, 20% subjective probability, recovery rate: 35-42), medium (burden-sharing, 20%, 30) and harsh restructuring (relief burden over to eurobond holders, 60%, 20.6) look like.

- The LEBAN curve looks attractive as bonds are trading even below the harsh restructuring scenario. However, a key issue is that the restructuring may settle only 1-2y forward given complexities, which dents attractiveness a tad. LEBAN eurobonds sub-15 should look attractive on all measures.

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Mapping the debt and ownership

Moratorium announced

Prime Minister Diab made a televised address on March 7 explaining the rationale behind the decision to withhold the payments on LEBAN March-20 eurobonds (the transcript can be found here). The MoF then released an official notification declaring the moratorium (see here). Yesterday the moratorium was extended to all US$31.3 billion worth of eurobonds which are outstanding (see here). The Determination Committee has ruled missing payment on March-20 a credit event triggering CDS. Reuters reported that Economy Minister Nehme expects debt restructuring talks between Lebanon and bondholders to conclude within nine months. The televised speech and the MoF gazette carried few details on the debt restructuring plan, and as such market focus will likely be on the investor presentation due this Friday.

Mapping the public sector debt

PM Diab in his speech talked about Lebanon's debt at US$90 billion or 170% of GDP. We think the headline number is slightly understated as it includes just the MoF debt. Total public sector debt (MoF + BDL - BDL holding of MoF debt) as per our estimate stood at US$96.5 billion or 175% of 2018 GDP as of end-2019. We look at the broader definition as in a restructuring scenario it would make a bit more sense to delever across the public sector. Indeed, Nehme told CNBC that Lebanon wants to make sure its restructuring is once and for all.

Exhibit 1: Public sector debt is slightly higher than MoF-only debt

MoF Debt outstanding									
LBP bn	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Local currency debt	**49,340**	**50,198**	**56,312**	**61,752**	**65,195**	**70,528**	**74,077**	**77,852**	**87,279**
Central Bank	15,974	14,649	16,761	19,454	23,907	30,150	35,580	39,006	50,717
Commercial banks (including Repo)	25,577	27,667	30,315	31,869	30,279	29,581	27,756	27,402	25,316
Other local debt (t-bills)	7,789	7,882	9,236	10,429	11,009	10,797	10,741	11,444	11,246
o/w public entities	*6,538*	*6,479*	*7,117*	*7,701*	*8,461*	*8,718*	*8,941*	*9,956*	*9,968*
o/w contractor bonds	*41*	*134*	*134*	*180*	*180*	*139*	*166*	*166*	*120*
**Accrued interest included in debt*	*788*	*789*	*877*	*1,029*	*997*	*1,098*	*1,159*	*1,123*	*1,294*
Foreign currency debt	**31,597**	**36,776**	**39,400**	**38,612**	**40,836**	**42,382**	**45,828**	**50,486**	**50,871**
Eurobonds	27,490	32,789	35,533	34,850	37,561	39,240	42,339	47,225	47,776
Of which Paris II	*3,161*	*2,646*	*2,130*	*1,615*	*1,099*	*583*	*68*	*0*	*0*
Of which Paris III	*663*	*317*	*271*	*226*	*181*	*136*	*0*	*0*	*0*
Of which market issued eurobond	*23,258*	*29,427*	*32,688*	*32,584*	*35,846*	*38,063*	*41,791*	*46,678*	*47,206*
** accrrued interest on eurobond*	*407*	*400*	*444*	*425*	*435*	*458*	*480*	*547*	*570*
Loans	**4,033**	**3,884**	**3,738**	**3,648**	**3,207**	**3,079**	**3,456**	**3,255**	**3,092**
Paris II loans	*351*	*279*	*208*	*128*	*83*	*48*	*18*	*0*	*0*
Paris III loans	*1,060*	*997*	*915*	*760*	*629*	*525*	*452*	*344*	*261*
Bilateral loans (non Paris II and III)	*787*	*841*	*827*	*1,200*	*1,054*	*953*	*935*	*817*	*727*
Multilateral loans (non Paris II and III)	*1,816*	*1,753*	*1,694*	*1,506*	*1,417*	*1,494*	*1,967*	*2,011*	*2,036*
Foreign private sector loans	*18*	*14*	*94*	*54*	*24*	*59*	*84*	*83*	*68*
Other debt	**74**	**103**	**129**	**114**	**68**	**63**	**33**	**6**	**3**
Special Tbls in foreign currency	*74*	*103*	*129*	*114*	*68*	*63*	*33*	*6*	*3*
Gross Public Debt	**80,937**	**86,974**	**95,712**	**100,364**	**106,031**	**112,910**	**119,905**	**128,338**	**138,150**
Public sector deposits	10,984	12,916	15,495	14,246	13,555	14,586	15,659	14,186	15,677
Net debt	**69,953**	**74,058**	**80,217**	**86,118**	**92,476**	**98,324**	**104,246**	**114,152**	**122,473**

Source: MOF, BDL

BDL debt outstanding									
LBP bn	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Certificate of deposits in LBP							35,865	47,734	48,040
Certificate of deposits in US$							23.2	23.1	22.7
Total BDL debt							**70,827**	**82,546**	**82,249**

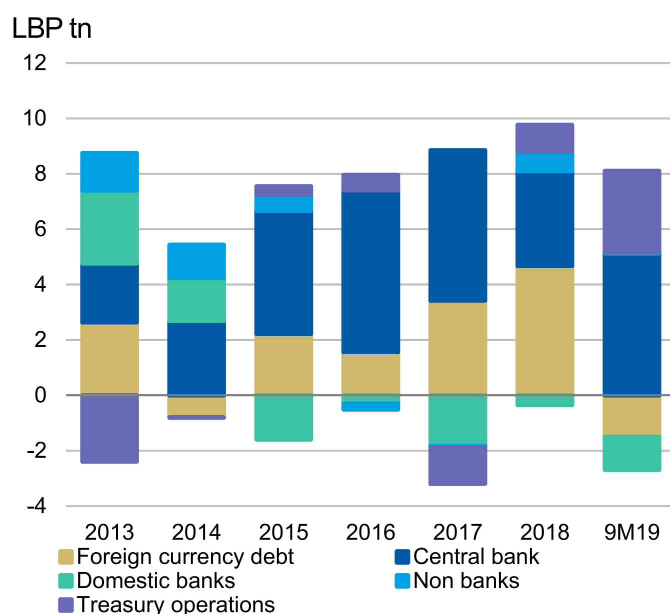
Total Public debt									
LBP bn	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
MoF							119,905	128,338	138,150
BDL							70,827	82,546	82,249
less public sector deposits							-15,659	-14,186	-15,677
less BDL holding of MoF LBP debt							-35,580	-39,006	-50,717
less BDL holding of MoF US$ debt (estimated)								-8,289	-8,590
Total public debt							**139,493**	**149,403**	**145,415**
% of GDP							**174.1**	**180.2**	**175.4**

Source: MoF, BDL, ABL, Morgan Stanley Research

Inter-linkages between public sector and bank balance sheets

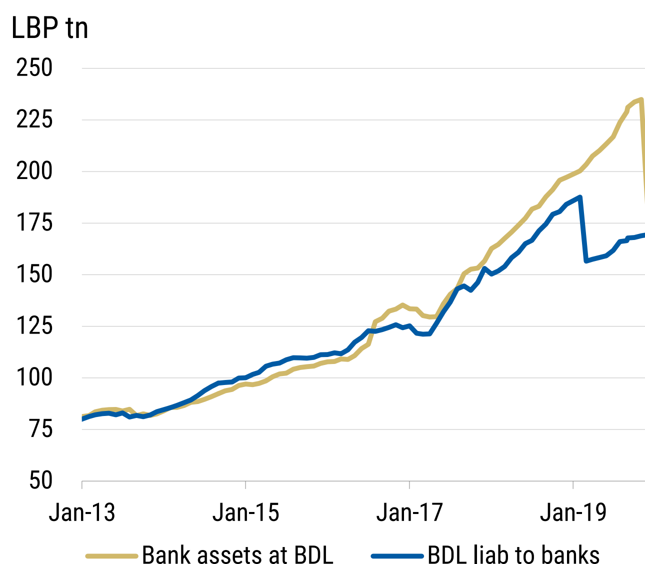
For the past five years, the MoF has been funding the budget deficit via central bank (BDL) financing and eurobond issuance. Banks were not funding the sovereign directly. Even the eurobond issues of late were sold directly to BDL. However, such an issuance doesn't boost FX reserves for the central bank and, as such, BDL engaged in a series of financial engineering operations with the domestic banks. Put simply, banks were encouraged to raise foreign currency deposits. The FX liquidity was then absorbed by the central bank via reserve requirements, selling eurobonds to banks, selling LBP debt at discounted rates, etc. These operations interlink and expand balance sheets for BDL and domestic banks. On the BDL balance sheet, there was a surge in liabilities to domestic banks and on banks' balance sheet there was a surge in assets parked at BDL.

Exhibit 2: MoF deficits have been funded by BDL financing of late



Source: MoF, BDL, ABL, Morgan Stanley Research

Exhibit 3: BDL and domestic bank inter-linkages also went up during this time



Source: MoF, BDL, ABL, Morgan Stanley Research

Given the circularity described above and still largely domestic funding, it is important to look at the inter-linkages between the MoF, BDL and domestic banks. We present a simplified version of their balance sheets below and also mark the inter-linkages. For each of the line items, we have also made an attempt to classify them by their currency denomination and residency. For instance, the eurobond ownership of BDL is classified as a FC-denominated asset but domestic in nature (as opposed to external). Thereafter, we sum up the FC balance sheet and external balance sheet for the system (MoF + BDL + banks), cancelling the inter-linkages. We think this view is also important as just addressing the public sector vulnerabilities isn't enough and, for a sustained positive GDP growth rate going forward, the banking sector should also be in healthy shape.

Exhibit 4: Simplified version of the inter-linkages between the MoF, BDL and bank balance sheets

MOF

Assets	LBP bn	US$bn	Liabilities	LBP bn	US$bn
Cash balance	15,677	10.4	LBP debt	87,279	57.9
- o/w BDL (LBP, domestic)	*8,203*	*5.4*	*- owned by BDL (domestic)*	*50,717*	*33.7*
- o/w banks (LBP, domestic)	*7,379*	*4.9*	*- owned by banks (domestic)*	*25,316*	*16.8*
- unclassified (LBP, domestic)	*95*	*0.1*	*- owned by others (domestic)*	*11,246*	*7.5*
			Eurobonds	47,776	31.7
			- owned by BDL (FC, domestic)	*8,590*	*5.7*
			- owned by banks (FC, domestic)	*20,827*	*13.8*
			- owned by foreigners (FC, external)	*18,359*	*12.2*
			Other FC debt (FC, external)	3,095	2.1
Total liquid assets	**15,677**	**10.4**	**Total liabilities**	**138,150**	**91.7**
FC liquid assets	**-**	**-**	**FC liabilities**	**50,871**	**33.8**
External liquid assets	**-**	**-**	**External liabilities**	**21,454**	**14.2**

BDL

Assets	LBP bn	US$bn	Liabilities	LBP bn	US$bn
Gold (FC, external)	21,013	13.9	Currency in circulation outside BDL (LBP, domestic)	10,564	7.0
Foreign currencies (FC, external)	44,550	29.6	Deposits of banks	168,861	112.1
Foreign securities	11,652	7.7	*- o/w statuatory reserves LBP (estimate, domestic)*	*10,326*	*6.9*
-o/w eurobonds (FC, domestic)	*8,590*	*5.7*	*- o/w statuatory reserves FC (estimate, domestic)*	*29,101*	*19.3*
-o/w others (FC, external)	*3,063*	*2.0*	*- o/w BDL LBP CDs (domestic)*	*48,040*	*31.9*
Loans to banks (LBP, domestic)	22,523	14.9	*- o/w BDL FC CDs (domestic)*	*34,209*	*22.7*
Securities portfolio	57,270	38.0	*- o/w excess deposits in LBP (estimate, domestic)*	*9,589*	*6.4*
- o/w MoF (LBP, domestic)	*50,717*	*33.7*	*- o/w excess deposits in FC (estimcte, domestic)*	*37,596*	*24.9*
- o/w others (LBP, domestic)	*6,553*	*4.3*	Public sector accounts (LBP, domestic)	8,203	5.4
Fixed Assets (LBP, domestic)	393	0.3	Valuation adjustment (LBP, domestic)	12,835	8.5
Exchange operations of financial instruments (LBP, domestic)	18,081	12.0	Capital accounts (LBP, domestic)	5,667	3.8
Unclassified assets (LBP, domestic)	37,628	25.0	Unclassified liabilities (LBP, domestic)	6,965	4.6
Total Assets	**213,095**	**141.4**	**Total liabilities**	**213,095**	**141.4**
FC assets	**77,215**	**51.2**	**FC liabilities**	**100,906**	**67.0**
External assets	**68,626**	**45.5**	**External liabilities**	**-**	**-**

Banks

Assets	LBP bn	US$bn	Liabilities	LBP bn	US$bn
Deposits with central bank	178,208	118.3	Resident deposits	188,480	125.1
- o/w statuatory reserves LBP (estimate, domestic)	*10,326*	*6.9*	*- o/w LBP (domestic)*	*51,973*	*34.5*
- o/w statuatory reserves FC (estimate, domestic)	*29,101*	*19.3*	*- o/w FC (domestic)*	*136,507*	*90.6*
- o/w BDL LBP CDs (domestic)	*48,040*	*31.9*	Public sector deposits (LBP, domestic)	7,379	4.9
- o/w BDL FC CDs (domesic)	*34,209*	*22.7*	Non-resident deposits	48,920	32.5
- o/w excess deposits in LBP (estimate, domestic)	*9,589*	*6.4*	*- o/w LBP (external)*	*4,733*	*3.1*
- o/w excess deposits in FC (estimate, domestic)	*37,596*	*24.9*	*- o/w FC (external)*	*44,187*	*29.3*
- o/w others (domestic)	*46,944*	*31.2*	Deposits of non-resident financial sector (FC, external)	13,310	8.8
Loans to resident private sector	69,040	45.8	Other liabilities (LBP, domestic)	37,469	24.9
- o/w LBP (domestic)	*23,295*	*15.5*			
- o/w FC (domestic)	*45,744*	*30.4*			
Claims on public sector	46,143	30.6			
o/w t-bills (LBP, domestic)	*25,316*	*16.8*			
o/w eurobonds (FC, domestic)	*20,827*	*13.8*			
Foreign assets (FC, external)	26,534	17.6			
Other asssets	6,872	4.6	Capital accounts (LBP, deposits)	31,240	20.7
Total assets	**326,797**	**216.9**	**Total equity & liabilities**	**326,798**	**216.9**
FC assets	**194,004**	**128.7**	**FC liabilities**	**194,004**	**128.7**
External assets	**26,534**	**17.6**	**External liabilities**	**62,230**	**41.3**

System

FC assets	LBP bn	US$bn	FC liablities	LBP bn	US$bn
Owed to MoF	-	-	Owed to MoF	21,454	14.2
Owed to BDL	68,626	45.5	Owed to BDL	-	-
Owed to banks	26,534	17.6	Owed to banks	194,004	128.7
Total	**95,160**	**63.1**	**Total**	**215,458**	**143.0**

System

External assets	LBP bn	US$bn	External liablities	LBP bn	US$bn
Owed to MoF	-	-	Owed to MoF	21,454	14.2
Owed to BDL	68,626	45.5	Owed to BDL	-	-
Owed to banks	26,534	17.6	Owed to banks	62,230	41.3
Total	**95,160**	**63.1**	**Total**	**83,684**	**55.5**

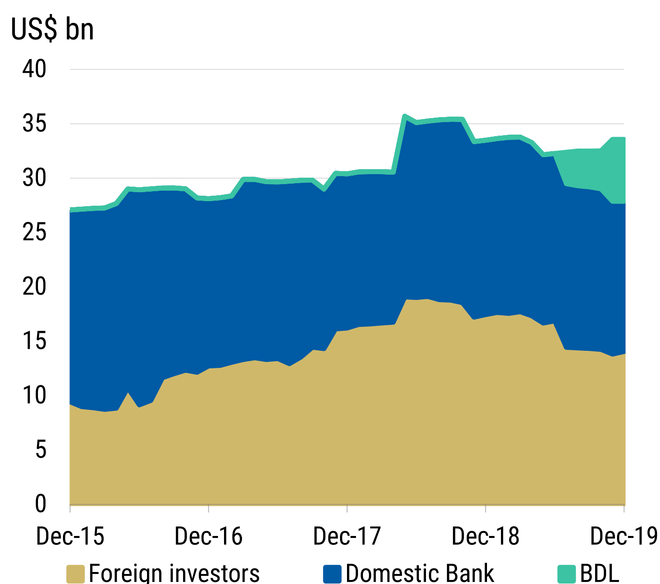
Source: BDL, ABL, MoF, Haver Analytics, Morgan Stanley Research; Note: The key assumption made is that FC assets of banks equal their FC liabilities to estimate the excess deposits by banks at BDL. The statutory reserves are estimated by applying the RRR over the stock of term and demand deposits in LBP and in FC.

Eurobond ownership suggests a holdout problem is likely

The ownership structure of the LEBAN eurobond complex would be back in focus as we enter the restructuring phase. The notional amount of eurobonds outstanding is US$31.3 billion (the reported number is slightly higher at US$31.7 billion as it includes some contractor bonds). The largest chunk of these bonds are owned by domestic banks at US$13.8 billion, followed by foreigners at US$12.2 billion and BDL at US$5.7 billion (latest: US$5.5 billion) as of end-2019. We think that BDL ownership is largely concentrated in four bonds – LEBAN 11% 29, 8.2% 33, 8.25% 34 and 12% 35.

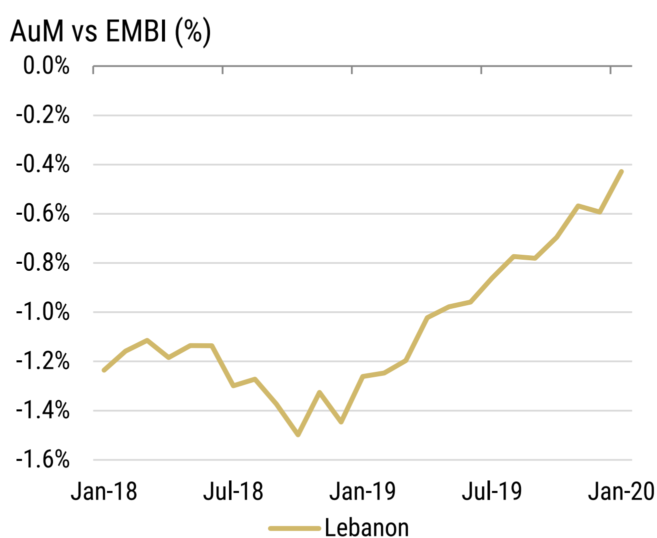
With foreign investors, EMBI benchmark investor positioning is now around 40bp underweight. The level of underweight came down significantly in 2019. Indeed, some funds were adding risk but the larger driver was the decline in Lebanon's weight in EMBI. The weight declined as the index is a market capitalisation-based index and Lebanon's cash prices were declining throughout 2019, and additionally a couple of large eurobonds (LEBAN 20/21s) rolled off the index, given their shorter maturities. The foreign ownership is mostly concentrated in the front end of the curve.

Exhibit 5: Lebanon eurobond ownership



Source: BDL, ABL, MoF, Haver Analytics, Morgan Stanley Research; Note: BDL used to own bonds pre-2019 as well but the split isn't available and its ownership is accounted for within the foreign category.

Exhibit 6: EMBI investor positioning is a small underweight



Source: EPFR, Datastream, Morgan Stanley Research; Note: The EPFR data and charts displayed here must not be extracted and republished (whether internally or externally). Such use will violate the terms of Morgan Stanley's contract with EPFR which only covers named users.

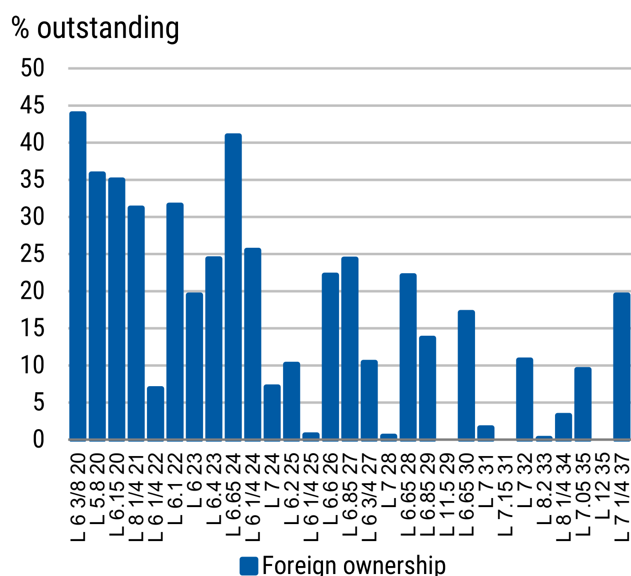
The ownership structure matters even at a bond level as Lebanon bonds don't have an ICMA-recommended single limb collective action clause (CAC) which permits restructuring of securities across several classes. Simply put, the restructuring vote will happen bond by bond. Consent of 75% of bondholders is required to change or modify the terms of the notes. BDL won't be entitled to a vote for any restructuring proposal as per our understanding of the bond documents.

At the same time, note that foreign fund ownership has a large skew towards the top holders. The incentives or goals to accept a certain restructuring proposal could be different among domestic and foreign investors considering: i) The symbiotic relationship between the MoF, BDL and the banks, and ii) Bank ownership of eurobonds is a very small proportion of their overall claim on the public sector.

Lastly, while not yet reflected in Bloomberg ownership data, local news suggest that many domestic banks sold short-dated eurobonds in February 2020 to foreigners. Together these issues increase the risk of holdouts significantly, in our view. This was a notable issue during restructuring in Argentina in 2005 and Greece in 2012. However, Lebanon can make a restructuring deal contingent upon every bond reaching 75%, which can in part make up for no formal CACs like Ukraine did in 2015.

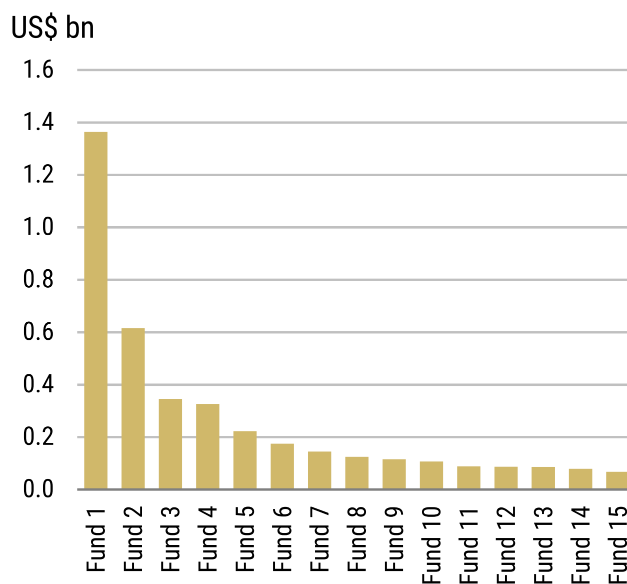
Even the academic review of previous sovereign restructuring events suggested that the higher the losses suffered by investors on any given bond, the higher the share of holdouts in that bond. We argue later in the report that Lebanon needs a large debt relief. Furthermore, the study also suggested that a large variation in haircuts within the same deal is also possible in the absence of single limb CACs (see Restructuring sovereign bonds: holdouts, haircuts and the effectiveness of CACs for more details).

Exhibit 7: Foreign ownership of LEBAN eurobonds at a bond level as proportion of outstanding



Source: Bloomberg, Morgan Stanley Research; Note: The foreign ownership in the chart just represents what can be tracked via Bloomberg and not the entire debt stock.

Exhibit 8: Foreign fund ownership across the LEBAN curve in nominal terms



Source: Bloomberg, Morgan Stanley Research; Note: The foreign ownership in the chart just represents what can be tracked via Bloomberg and not the entire debt stock.

Domestic debt is easier to restructure in theory, but is it really?

With the non-eurobond debt issued under domestic law and given the symbiotic relationship, it's easier to restructure it. One would also argue that focusing on debt relief via restructuring domestic debt would benefit the sovereign more since US$84 billion of the total US$96.6 billion public sector debt is held onshore. Such a process would mean better recovery for external creditors, and a swifter possible return of the sovereign to the global capital markets for future funding needs.

However, the challenge we see in Lebanon is that domestic banks, as opposed to funds, are the key financier for the sovereign domestically. Any restructuring will likely impact the banks' capital position as securities are held on the asset side, which in turn will lead to contingent liabilities for the sovereign to recapitalise the banks. In fact, banks' claim on the public sector is 7.5x their capital positions. This will happen at a time when the sovereign itself needs debt relief, and when banks' capital positions are also under pressure from two sources.

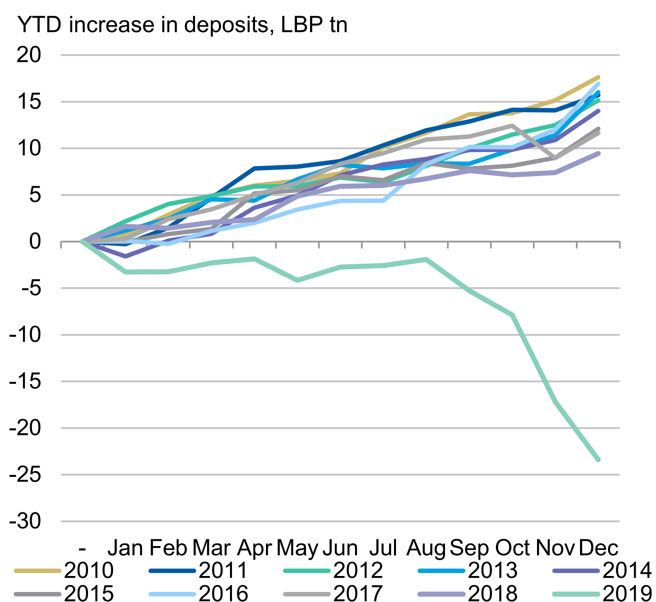
First, from delinquencies, given that the ongoing protests in Lebanon which started in October are having a significant impact on the GDP growth rate. The listed big banks in Lebanon are trading at a price/book ratio of 0.20-0.25x, reflecting such pressure. Second, our understanding is that while there would have been some provisioning, most of the public sector securities (T-bills/bonds, CDs, eurobonds) held by the banks are marked at par in their books. Even if we just focus on their US$13.8 billion holdings of eurobonds (the bonds are currently quoted at 20 cents on the dollar), just a mark-to-market exercise could lead to a write-down of as much as US$11 billion versus the bank capital position of US$20.7 billion.

So argumentatively it would indicate that the sovereign may place more emphasis on reprofiling, as opposed to restructuring, domestic debt. Doing so would yield benefit for the sovereign from a cash flow perspective and NPV of debt declines, whereas for banks it means that their annual profitability declines but less of an impact on their capital positions. A good example of that approach is Jamaica doing a flow rescheduling of its domestic debt to address its high debt/GDP burden of 124% in 2010.

Deposits are too large versus GDP

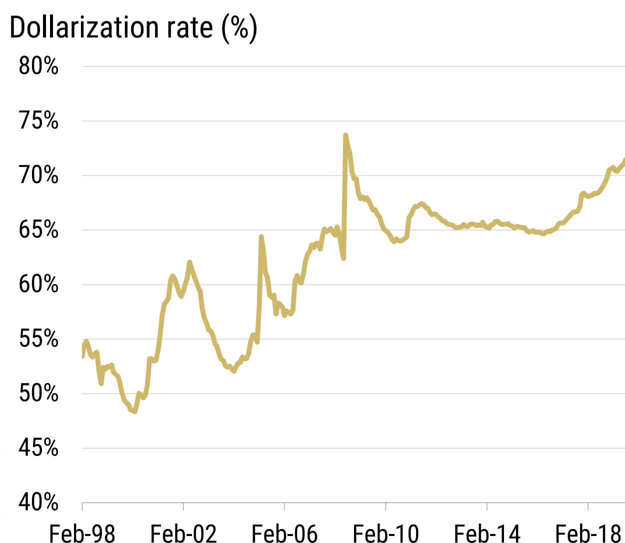
Deposits are liabilities of the banks. Overall bank deposits are around US$170 billion now but, of these, what matters is how much is denominated in foreign currencies (US$129 billion) and how much is owed to non-residents (US$42 billion) in Exhibit 4. There are two structural issues here. First, the deposits are over 300% of GDP. While it means that, in a normal times, small increases in deposits lead to ample excess liquidity for domestic banks, which is channelled to the sovereign, in tough times it acts the opposite way, i.e., it accentuates the already tight external conditions. Second, the increase in dollarisation rates puts pressure on external liquidity as well.

Exhibit 9: Deposit inflows were supportive until they weren't in 2019



Source: BDL, ABL, Morgan Stanley Research

Exhibit 10: Dollarisation rate is near all-time highs



Source: BDL, Morgan Stanley Research

Objective during debt restructuring

Total public sector debt at 175% of GDP is unsustainable, and Lebanon needs large debt relief. To approach the question of how large a debt relief is needed from a sovereign standpoint, there are four objectives. Failing to meet any would mean that debt-sustainability concerns arise down the road as well.

First, a reform plan to address the structural fiscal issues. Moreover, in order to ensure the external liquidity issues don't crop up again, the FX overvaluation also needs to be addressed so the current account deficit narrows. Accordingly, the projected macro variables should be able to put Lebanon's DSA on a sustainable path.

Second, ensure the gross funding requirements over the next 2-3 years are met with the debt restructuring. This is in order to give the sovereign time to implement reforms. Considering that Lebanon has been achieving near-zero primary balance deficits, at least before the protests began, it should just be a question of introducing coupon holidays and extending maturities. We don't factor in multilateral or bilateral inflows for fiscal funding unless better clarity emerges.

Third, reducing the debt stock to the 70% of GDP threshold which is generally considered sustainable. However, reducing the stock on a gross basis is challenging, given the aforementioned impact on bank capital positions. Yet, the NPV of debt stock can be brought down by both rescheduling and reprofiling. Looking at PV of debt is an approach generally taken for countries without market access, but in Lebanon's case, real value of debt will erode with rescheduling as inflation has picked up sharply on expectations of exchange rate weakness. Accordingly, the proposed measures should be large enough to reduce NPV debt/GDP (i.e., relief) by 100-110%. We calculate the relief by calculating PV of the difference in new versus current coupon and principal.

Fourth, the debt restructuring may also mean that there are contingent liabilities in the form of bank recapitalisation which may mean the required savings go up even more. The sovereign needs to account for such contingent liabilities ahead of debt restructuring.

What does the DSA look like in a reform scenario

The IMF and the World Bank are yet to revise their projections for Lebanon after October. Given the change in paradigm, we don't think we can use those long-term forecasts any longer. We instead use IIF projections which factor in reforms such as increasing tax rates for higher income groups, fighting smuggling and corruption, implementing EDL reforms, rescheduling and lowering the effective interest rates, public sector employment rationalisation and privatisation of telecommunication companies.

It's a big ask, but the creditors will push for these reforms under restructuring. Separately, Lebanon will need multilateral and bilateral support as even after reforms and/or debt relief, its current account remains in a deficit, considering that import substitution cannot take place in the near term. The IMF will also push for reforms before extending support. Under IIF projections, growth slumps to -4.6%Y in 2020, and gradually rises to 5%Y by 2024. On the fiscal balance side, the IIF assumes a primary balance deficit of 2% in 2020 and rising to a surplus by 2024, and the current account deficit narrowing to 10% of GDP by 2024.

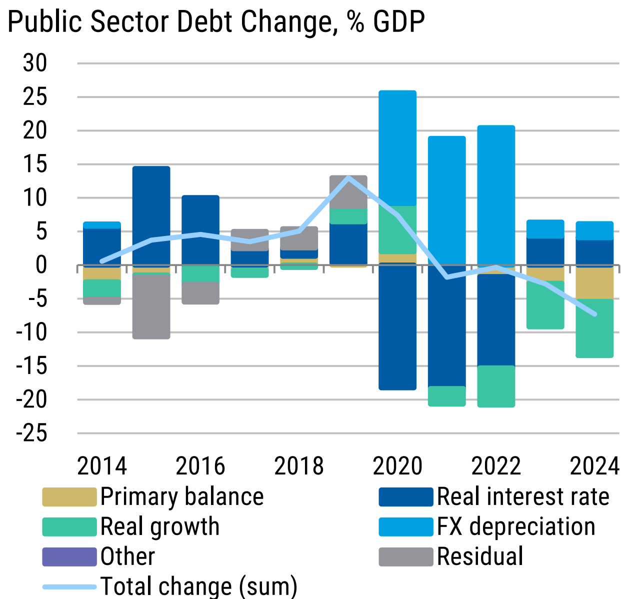
In a reform scenario, the exchange rate also needs to adjust. The IMF in its last Article IV assessed Lebanon's exchange rate to be 50-67% overvalued. However, as just under 40% of MoF debt is denominated in foreign currencies, any exchange rate movement will end up increasing debt/GDP.

- **Exchange rate movement without reforms:** The IMF report also stated that a 50% real exchange rate shock, based on the standard inflation pass-through coefficient of 0.25, would affect the debt/GDP ratio to a similar extent as a growth shock, i.e., the debt/GDP ratio would reach almost 200% of GDP and financing needs would exceed 40% of GDP in 2024.

- **Exchange rate movement with reforms:** However, in a reform and debt reprofiling scenario (coupon holidays for the next three years), when accounting for exchange rate adjustment to take place over three years, the leverage stabilises. The translation effect of higher debt/GDP is offset by erosion of local currency debt in real terms in initial years. Leverage does start to decline towards the end of the projection horizon, wherein the IIF has pencilled in a 5%Y real GDP growth rate and a primary surplus of similar magnitude.

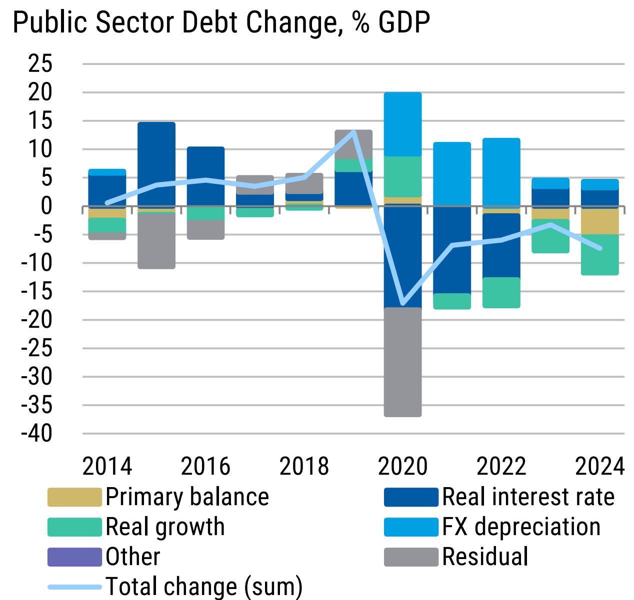
- **Exchange rate movement with reforms and restructuring scenario:** To firmly put the Lebanon's DSA on a sustainable footing, the multilaterals or the sovereign will push for restructuring along with reprofiling. Just for illustration we assume a 50% haircut on Lebanon eurobonds and show that leverage does start to decline materially in a reform scenario.

Exhibit 11: Exchange rate movement with no debt restructuring



Source: IIF, Moody's, Morgan Stanley Research

Exhibit 12: Exchange rate movement with debt restructuring (50% haircut on eurobonds)



Source: IF, Moody's, Morgan Stanley Research

Levers to pull

We look for various levers Lebanon has to achieve its other objective to achieve relief worth 100-110% of debt/GDP in NPV terms.

Domestic law debt: Reprofiling

T-bills and bonds, denominated in LBP and USD, issued by the MoF, and Certificate of Deposits, denominated in both LBP and USD, issued by BDL, are all under domestic law. In other words, all tradeable public sector debt bar eurobonds is domestic law debt. We compile all such debt, to the extent possible, at an instrument level to see the impact of any reprofiling.

Given the impact on bank capital in case of principal haircuts, we think that the authorities will likely focus on extending maturity, lowering coupons and introducing coupon holidays rather than reducing principal. Extending maturity for onshore debt should be straightforward considering that bank treasury desks need to own liquid instruments to park their surplus liquidity. As a starting point, we assume a blanket 10y extension of all domestic debt. Thereafter, we consider a range of coupon rates and coupon holidays. We discount the cash savings between the new instruments and original instruments at the original coupon rate of the instrument to calculate the NPV of the relief. Lowering coupon rates leads to more savings than coupon holidays, as shown in Exhibit 13 and Exhibit 14.

A haircut on principal leads to even larger savings from a sovereign perspective as we show below. Yet, a modest 5% haircut on domestic law debt would imply that the bank capital base gets impacted by US$3.5 billion upon segregating their claim on the public sector versus the bonds held by BDL. This itself will be a big dent to the bank capital position of US$20.7 billion. Even from a sovereign perspective, as the need for bank recapitalisation rises it would either look to do a cash injection of a similar amount which negates the benefit of coupon holidays in their entirety, or else look to transfer high-quality sovereign paper to banks, which negates the benefit of the haircut in itself.

Exhibit 13: NPV relief (% GDP)

Flat coupon rate (%)	Coupon deferral (years)										
	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
0.0	116.5	116.5	116.5	116.5	116.5	116.5	116.5	116.5	116.5	116.5	116.5
0.5	116.5	116.5	116.5	110.1	110.5	110.9	111.2	111.5	111.9	112.2	112.5
1.0	101.3	102.2	103.0	103.7	104.5	105.2	105.9	106.6	107.2	107.8	108.4
1.5	93.7	95.0	96.2	97.4	98.5	99.6	100.6	101.6	102.6	103.5	104.4
2.0	86.2	87.8	89.4	91.0	92.5	93.9	95.3	96.7	97.9	99.2	100.4
2.5	78.6	80.7	82.7	84.6	86.5	88.3	90.0	91.7	93.3	94.9	96.4
3.0	71.0	73.5	75.9	78.2	80.5	82.6	84.7	86.7	88.7	90.5	92.3
3.5	63.4	66.3	69.1	71.9	74.5	77.0	79.4	81.8	84.0	86.2	88.3
4.0	55.8	59.2	62.4	65.5	68.5	71.4	74.1	76.8	79.4	81.9	84.3
4.5	48.2	52.0	55.6	59.1	62.5	65.7	68.8	71.8	74.7	77.5	80.2
5.0	40.7	44.8	48.9	52.7	56.5	60.1	63.5	66.9	70.1	73.2	76.2
5.5	33.1	37.7	42.1	46.4	50.5	54.4	58.2	61.9	65.5	68.9	72.2
6.0	25.5	30.5	35.3	40.0	44.5	48.8	52.9	57.0	60.8	64.6	68.2
6.5	17.9	23.3	28.6	33.6	38.5	43.1	47.7	52.0	56.2	60.2	64.1
7.0	10.3	16.2	21.8	27.2	32.5	37.5	42.4	47.0	51.6	55.9	60.1
7.5	2.7	9.0	15.0	20.8	26.5	31.9	37.1	42.1	46.9	51.6	56.1

Source: Bloomberg, BDL, MoF, Morgan Stanley Research; Note: In the example, we have assumed no principal reduction.

Exhibit 14: NPV relief (% GDP)

Flat coupon rate (%)	Principal haircut (%)										
	0.0	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0	22.5	25.0
0.0	116.5	120.7	124.9	129.1	133.3	137.5	141.7	145.9	150.1	154.3	158.5
0.5	111.2	115.4	119.6	123.8	128.0	132.2	136.4	140.6	144.8	149.0	153.2
1.0	105.9	110.1	114.3	118.5	122.7	126.9	131.1	135.3	139.5	143.7	147.9
1.5	100.6	104.8	109.0	113.2	117.4	121.6	125.8	130.0	134.2	138.4	142.6
2.0	95.3	99.5	103.7	107.9	112.1	116.3	120.5	124.7	128.9	133.1	137.3
2.5	90.0	94.2	98.4	102.6	106.8	111.0	115.2	119.4	123.6	127.8	132.0
3.0	84.7	88.9	93.1	97.3	101.5	105.7	109.9	114.1	118.3	122.5	126.7
3.5	79.4	83.6	87.8	92.0	96.2	100.4	104.6	108.8	113.0	117.3	121.5
4.0	74.1	78.3	82.5	86.7	90.9	95.1	99.3	103.5	107.8	112.0	116.2
4.5	68.8	73.0	77.2	81.4	85.6	89.8	94.1	98.3	102.5	106.7	110.9
5.0	63.5	67.7	71.9	76.1	80.4	84.6	88.8	93.0	97.2	101.4	105.6
5.5	58.2	62.4	66.7	70.9	75.1	79.3	83.5	87.7	91.9	96.1	100.3
6.0	52.9	57.2	61.4	65.6	69.8	74.0	78.2	82.4	86.6	90.8	95.0
6.5	47.7	51.9	56.1	60.3	64.5	68.7	72.9	77.1	81.3	85.5	89.7
7.0	42.4	46.6	50.8	55.0	59.2	63.4	67.6	71.8	76.0	80.2	84.4
7.5	37.1	41.3	45.5	49.7	53.9	58.1	62.3	66.5	70.7	74.9	79.1

Source: Bloomberg, BDL, MoF, Morgan Stanley Research; Note: In the analysis, we have assumed coupon holidays for three years.

Eurobonds: Restructuring

With less scope to do haircuts on domestic debt, the focus may be to shift the burden to eurobonds. To analyse the savings potential, we aggregate all eurobonds irrespective of their ownership for two reasons:

i) The domestic ownership has been declining steadily; and ii) A restructuring proposal more favourable to domestic banks as opposed to foreign investors risks increased holdouts as highlighted earlier.

To illustrate the potential savings that can be achieved, we show three different scenarios below – principal haircut of 30%, 50% and 70%. Within each scenario, we show the impact on extension and lowering of coupon. It appears that the maturity extension is less relevant than lowering the coupon from a sovereign perspective, and the bulk of the savings need to be driven by a principal haircut.

Exhibit 15: NPV relief (% GDP)

Principal haircut: 30%		Maturity extention (years)					
		5.0	6.0	7.0	8.0	9.0	10.0
Flat coupon rate (%)	0.0	40.1	41.2	42.2	43.1	44.0	44.9
	0.5	38.5	39.5	40.4	41.3	42.2	42.9
	1.0	36.9	37.8	38.7	39.5	40.3	41.0
	1.5	35.3	36.2	37.0	37.7	38.4	39.1
	2.0	33.7	34.5	35.2	35.9	36.5	37.1
	2.5	32.2	32.9	33.5	34.1	34.7	35.2
	3.0	30.6	31.2	31.8	32.3	32.8	33.3
	3.5	29.0	29.5	30.0	30.5	30.9	31.3
	4.0	27.4	27.9	28.3	28.7	29.1	29.4
	4.5	25.8	26.2	26.6	26.9	27.2	27.5
	5.0	24.3	24.6	24.8	25.1	25.3	25.5
	5.5	22.7	22.9	23.1	23.3	23.4	23.6
	6.0	21.1	21.2	21.4	21.5	21.6	21.7

Source: Bloomberg, BDL, MoF, Morgan Stanley Research

Exhibit 16: NPV relief (% GDP)

Principal haircut: 50%		Maturity extention (years)					
		5.0	6.0	7.0	8.0	9.0	10.0
Flat coupon rate (%)	0.0	44.9	45.7	46.4	47.1	47.7	48.3
	0.5	43.8	44.5	45.2	45.8	46.4	46.9
	1.0	42.6	43.3	43.9	44.5	45.0	45.6
	1.5	41.5	42.1	42.7	43.2	43.7	44.2
	2.0	40.4	40.9	41.4	41.9	42.4	42.8
	2.5	39.2	39.7	40.2	40.6	41.0	41.4
	3.0	38.1	38.6	39.0	39.3	39.7	40.0
	3.5	37.0	37.4	37.7	38.1	38.4	38.6
	4.0	35.9	36.2	36.5	36.8	37.0	37.3
	4.5	34.7	35.0	35.2	35.5	35.7	35.9
	5.0	33.6	33.8	34.0	34.2	34.3	34.5
	5.5	32.5	32.6	32.8	32.9	33.0	33.1
	6.0	31.3	31.4	31.5	31.6	31.7	31.7

Source: Bloomberg, BDL, MoF, Morgan Stanley Research

Exhibit 17: NPV relief (% GDP)

Principal haircut: 70%		Maturity extention (years)					
		5.0	6.0	7.0	8.0	9.0	10.0
Flat coupon rate (%)	0.0	49.7	50.2	50.6	51.0	51.4	51.8
	0.5	49.0	49.5	49.9	50.3	50.6	50.9
	1.0	48.4	48.8	49.1	49.5	49.8	50.1
	1.5	47.7	48.0	48.4	48.7	49.0	49.3
	2.0	47.0	47.3	47.6	47.9	48.2	48.4
	2.5	46.3	46.6	46.9	47.2	47.4	47.6
	3.0	45.6	45.9	46.2	46.4	46.6	46.8
	3.5	45.0	45.2	45.4	45.6	45.8	46.0
	4.0	44.3	44.5	44.7	44.8	45.0	45.1
	4.5	43.6	43.8	43.9	44.1	44.2	44.3
	5.0	42.9	43.1	43.2	43.3	43.4	43.5
	5.5	42.3	42.3	42.4	42.5	42.6	42.6
	6.0	41.6	41.6	41.7	41.7	41.8	41.8

Multilateral and bilateral support package

If multilateral or bilateral aid materialises, it would certainly be positive. However, from a market pricing perspective, we think it's too early to price such support, especially on the fiscal side.

- Lebanon's quota with the IMF would allow it to have a funded programme worth US$3.8 billion over three years in normal access. We think that Lebanon's funding need is significantly higher – we previously estimated the funding gap at US$5-6 billion annually. Getting exceptional access would be difficult considering that the IMF DSA classified Lebanon's debt as unsustainable, and this means that the Fund may push for a restructuring as a prior action item.

- From a bilateral perspective, support by GCC states in the MENA region is not uncommon but, given current oil prices and foreign policy orientations, we don't make it our base case. Similarly, CEDRE donors had committed over US$10 billion in project aid back in 2018 but the disbursement was tied to fiscal consolidation of 1% of GDP each year to reach 4% by 2023. The deficits are now likely in double-digits, which makes the initial target look ambitious, meaning that the programme may need to be renegotiated.

Bank deposits: Real value erosion

Bank deposits are a large part of the liabilities of the Lebanese financial sector. This matters as a bail-in of deposits would be required considering the limited ability of the sovereign to recapitalise banks. Similarly, the burden of recapitalisation cannot fall on taxpayers, given the current growth backdrop and as the protests began in October 2018 on the back of tax hikes. With the ongoing capital controls and limits on deposit withdrawal, a bail-in, even though a tough sell politically, is not inconceivable as an option.

At the least it's important to see how much savings can be extracted from the financial sector. The savings are needed for bank recapitalisations as equity will take a hit from rising NPLs as well as any haircut on government debt.

In fact, the *Financial Times* quoted the Finance Minister Wazni that the government was studying examples of debt restructuring in Cyprus and Greece, where a portion of deposits are converted to shares in the bank. This was subsequently denied in Bloomberg news.

Indeed, PM Diab also mentioned in his speech that an endeavour will be made to protect the deposits in the banking sector, especially those of small depositors who represent more than 90% of total accounts. This brings the question of how many deposits are held by the top 10% of accounts? The IMF 2016 Article IV highlighted that 85% of total deposits are in accounts with balances greater than US$100,000 with 50% of total deposits just in the hands of the top 1% of accounts. While it's not a 1-to-1 mapping, it would appear that the top 10% of accounts would cover at least 85% of deposits.

A bail-in can either be explicit or implicit. Explicit bail-in would mean a haircut on deposits over and above a defined threshold like Cyprus. Or alternatively, it can be implicit via three different ways. First, interest rate caps which are already in place. Second, paying interest on FX deposits in LBP. Currently, 50% of interest is paid in LBP. Third, converting FX deposits into LBP deposits at a pre-defined exchange rate.

The reason why these measures are implicit haircuts is because the parallel market exchange rate is much weaker than the spot rate. For argument's sake, a US$ deposit converted to LBP at the peg rate of LBP 1,507.5 per dollar is an implicit 40% haircut as the parallel market rate is close to LBP 2,500 per dollar. As per a Bloomberg article, this is under consideration as, under one proposal, clients with FX accounts would withdraw funds at the rate of LBP 2,000 per dollar.

From a bank balance sheet perspective, however, converting FX deposits to LBP at a weaker-than-spot exchange rate would increase its liabilities should the peg stay. The solution would only work if the official exchange rate is to weaken beyond the 'pre-defined' exchange rate. We show sensitivities of potential savings as a function of deposit haircut, conversion rate and new exchange rate below.

Exhibit 18: Relief (% GDP)

Conversation rate: 1,507.5		New exchange rate					
		1,508	2,000	2,250	2,500	2,750	3,000
Principal haircut (%)	0.0	-	49.0	65.7	79.0	89.9	99.0
	2.5	5.0	52.7	69.0	82.0	92.6	101.5
	5.0	9.9	56.5	72.3	85.0	95.4	104.0
	7.5	14.9	60.2	75.7	88.0	98.1	106.5
	10.0	19.9	64.0	79.0	91.0	100.8	109.0
	12.5	24.9	67.7	82.3	94.0	103.5	111.5
	15.0	29.8	71.5	85.7	97.0	106.3	114.0
	17.5	34.8	75.2	89.0	100.0	109.0	116.5
	20.0	39.8	79.0	92.3	103.0	111.7	119.0
	22.5	44.8	82.7	95.7	106.0	114.4	121.5
	25.0	49.7	86.5	99.0	109.0	117.2	124.0
	27.5	54.7	90.2	102.3	112.0	119.9	126.5
	30.0	59.7	94.0	105.7	115.0	122.6	129.0

Source: BDL, ABL, Morgan Stanley Research

Exhibit 19: Relief (% GDP)

Conversation rate: 2,000		New exchange rate					
		1,508	2,000	2,250	2,500	2,750	3,000
Principal haircut (%)	0.0	- 65.0	-	22.1	39.8	54.3	66.3
	2.5	- 58.4	5.0	26.5	43.8	57.9	69.6
	5.0	- 51.8	9.9	31.0	47.8	61.5	73.0
	7.5	- 45.2	14.9	35.4	51.7	65.1	76.3
	10.0	- 38.6	19.9	39.8	55.7	68.7	79.6
	12.5	- 32.0	24.9	44.2	59.7	72.4	82.9
	15.0	- 25.4	29.8	48.6	63.7	76.0	86.2
	17.5	- 18.8	34.8	53.1	67.7	79.6	89.5
	20.0	- 12.2	39.8	57.5	71.6	83.2	92.9
	22.5	- 5.6	44.8	61.9	75.6	86.8	96.2
	25.0	1.0	49.7	66.3	79.6	90.4	99.5
	27.5	7.6	54.7	70.7	83.6	94.1	102.8
	30.0	14.2	59.7	75.2	87.5	97.7	106.1

Source: BDL, ABL, Morgan Stanley Research

Bringing it all together

Now that we are aware of the broad saving potential of the various levers the sovereign can pull, we create three different scenarios from the perspective of foreign investors. Given that Lebanon would need to pull in similar relief via a mix of restructuring domestic law debt, eurobonds and bank deposits, a soft restructuring scenario for foreigners will be harsh for domestic investors, and vice versa.

We have designed the scenarios so that the NPV relief (% of GDP) across them is similar in the 100-125% of GDP range by taking into account the translation impact of the FX move. In our scenarios, we have assumed that bank deposit (for large accounts only in FX) restructuring would only be to recapitalise banks, given their likely increase in NPLs (assumption: 20-30%) and losses from a principal haircut on government bonds (both domestic and eurobonds), and would not be used to subsidise foreigners.

We assign a subjective 60% probability to a harsh restructuring scenario wherein the bulk of the burden falls on eurobond holders and both domestic debt and deposits aren't given a principal haircut. The savings from domestic debt are achieved from lowering the coupon and coupon holidays. For bank FX deposits, the relief comes implicitly via the FX move. We assign a higher probability to this scenario, considering that it's politically easier.

For soft and medium scenarios, we assign an equal subjective 20% probability. The soft scenario is harsh for domestic investors but, given the lack of aggregate CACs, it's not a low-probability scenario. In a soft scenario, we are assuming a much bigger haircut to domestic debt, and a much bigger FX adjustment which negates the need for a very large deposit haircut.

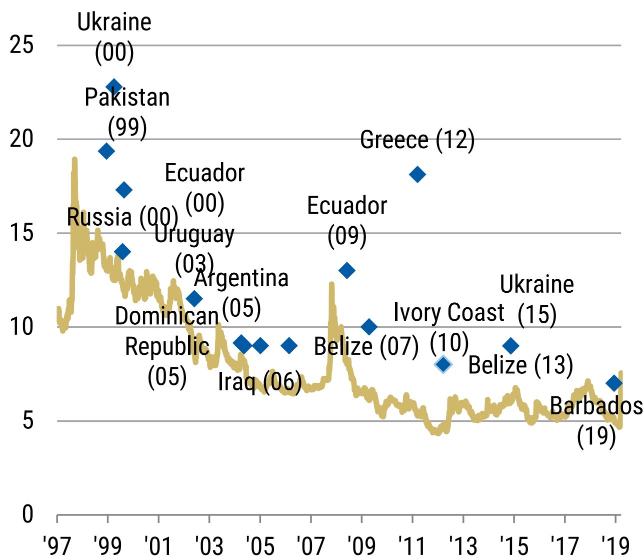
Exhibit 20: Restructuring scenarios

	Restructuring scenarios		
	Soft	Medium	Harsh
Domestic law debt			
Principal changes	Y:15%	Y:7.5%	N
Coupon deferral	3Y	3Y	3Y
Flat coupon rate	5.0%	5.0%	5.0%
Eurobonds			
Principal changes	Y:50%	Y:60%	Y:70%
Maturity extension	Y:+5	Y: 2032 via new bonds	Y: 2037 via new bonds
Coupon rate	8%	7%	6%
Bank deposits (large accounts in FX only)			
Conversation rate	2000	2000	1507
Exchange rate final	3000	2500	2250
Principal changes	12.5%	20.0%	0.0%
Exit Yield	12.0%	11.0%	10.0%
Recovery rate	Bond specific	30.08	20.71
Probability	20%	20%	60%

Source: Morgan Stanley Research estimates

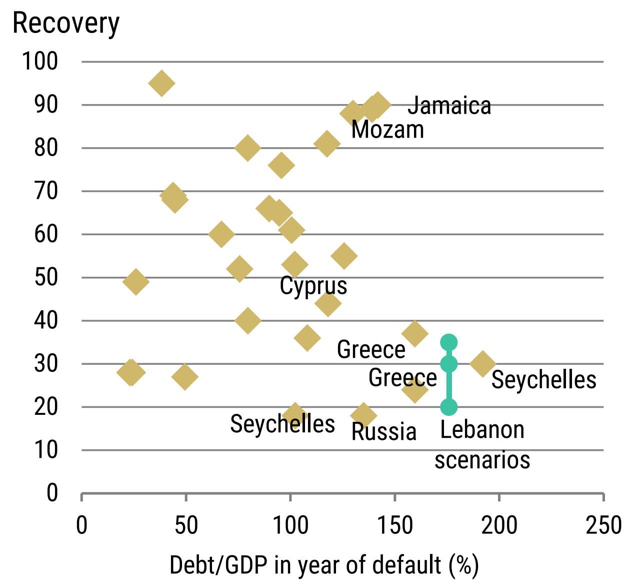
We use an exit yield of 10-12% across our scenarios. While current EMBI yield levels have adjusted wider, they are still low versus history. The recovery in Lebanon will be towards the lower end of previous restructurings but government debt/GDP in Lebanon is also higher than most of those instances. In most other instances of sovereign defaults where leverage was high such as Greece, the recovery value was low, as illustrated in Exhibit 22. One exception was Mozambique, but there was only one eurobond which was restructured and the country has natural resources. The second exemption was Jamaica, which is close to Lebanon in terms of high debt/GDP and domestic ownership of debt, but the difference we see is that domestic banks were willing to share the burden with voluntary debt exchanges and the presence of the IMF.

Exhibit 21: Historical EMBI index yield versus the exit yield of sovereign restructurings



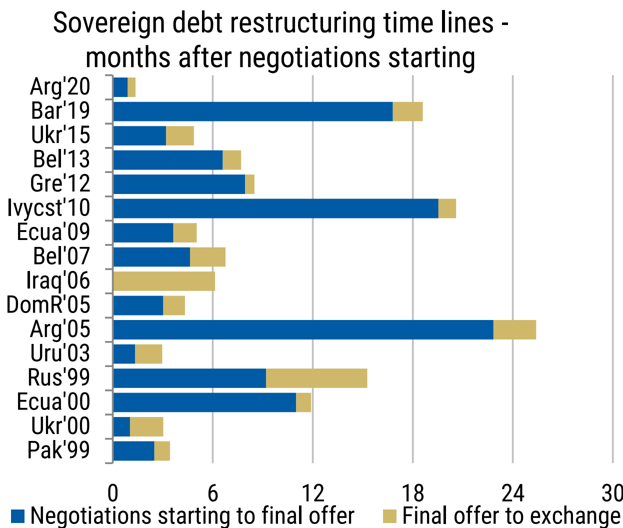
Source: Bloomberg, IMF, Cruces and Trebesch 2013, ECB, Morgan Stanley Research

Exhibit 22: Lebanon debt/GDP and estimated recovery values in perspective



Source: Moody;s, IMF, Morgan Stanley Research

Exhibit 23: Lebanon negotiations haven't started yet

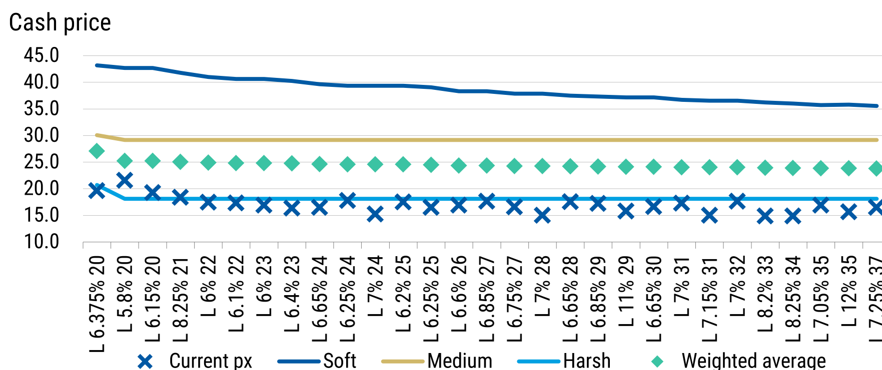


Source: Bloomberg, IMF, Cruces and Trebesch 2013, ECB, Morgan Stanley Research

Looking at where LEBAN bonds trade with respect to our scenarios, the bonds seem to be factoring in a harsh restructuring already. While that would make the bonds look attractive, the challenge is the time it may take for the restructuring to settle. What may make the negotiations more complex is CACs, as we highlighted earlier. Similarly, given the current market and commodity price backdrop, there may be other distressed opportunities in the market as well, which means that investors demand better terms. The negotiations with multilaterals like the IMF could also be prolonged, especially if there are any prior action items which require tax hikes. The government would also have to maintain a certain level of popularity.

Accordingly, while our probability-weighted average prices suggest 25 as the recovery value, discounting it by 15% (where other stressed sovereigns are currently trading) would suggest that should the restructuring settle 1-2y forward, the discounted value should be around a 20-22 cash price. While it would still imply modest upside against current prices, given the market backdrop we think that investors can get an entry level sub-15, which would be attractive.

Exhibit 24: Lebanon eurobond pricing



Source: Bloomberg, Morgan Stanley Research

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(as of February 29, 2020)
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	COVERAGE UNIVERSE		INVESTMENT BANKING CLIENTS (IBC)			OTHER MATERIAL INVESTMENT SERVICES CLIENTS (MISC)	
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Overweight/Buy	**1194**	**37%**	**311**	**43%**	**26%**	**534**	**37%**
Equal-weight/Hold	**1457**	**45%**	**332**	**46%**	**23%**	**697**	**48%**
Not-Rated/Hold	**2**	**0%**	**1**	**0%**	**50%**	**2**	**0%**
Underweight/Sell	**572**	**18%**	**77**	**11%**	**13%**	**224**	**15%**
TOTAL	**3,225**		**721**			**1457**	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly

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