

## SOVEREIGN BOND: TOWARDS A YIELD BENCHMARK!

Social Scientists/ Economists have, with remarkable alacrity, taken up the mantle of "Priestcraft" in recent times, mostly following the 2008 crisis. This has undermined policy making and serious research based on actual evidence and genuine expertise in many countries. For example, Greece is now currently running a fiscal surplus thanks to deep fiscal austerity that has pushed the economy into secular stagnation!

There are several examples in the Indian context too! For example, the narrative on large Government borrowings crowding out private sector investment, even though in the same breath we argue that growth has slowed down significantly owing to decline in private sector demand. Both of these hypotheses cannot co-exist together! A similar argument being currently made is that sovereign borrowings in \$ denominated bonds is a bad idea altogether! We must change our mindset!

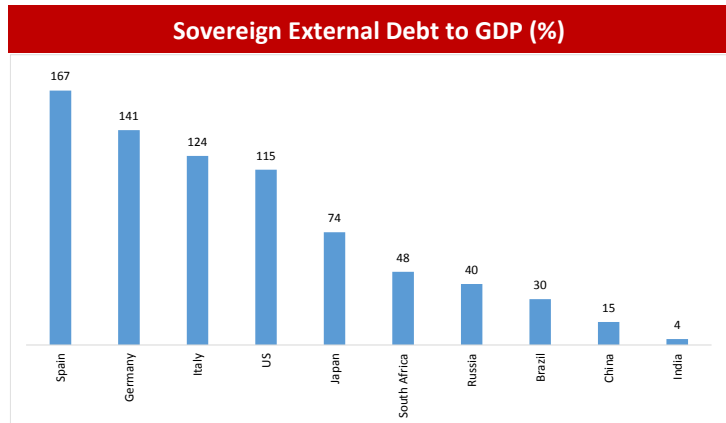
The Union Budget has proposed that Government would start raising a part of its gross borrowing programme in external markets. It is expected that Government will go for \$10 billion (around Rs 70,000 crore or 10% of gross market borrowings) worth of sovereign bonds initially. This amount is merely 2.3% of total India's current FX reserves and 29% of net FDI flows in FY19. This amount is also 1/3rd of the minimum amount of sovereign debt issued in international markets.

Going by the international evidence, India is best placed to tap the sovereign bond market now. Comparison with Latin American and Asian economies is imprudent and naïve. For example, such countries had an average 51% of debt denominated in foreign currencies /GDP, debt/GDP at 124%, CAD/GDP at 6%, Investment inflows at 9% and GDP growth at 5% just before the crisis. In contrast, India's external debt/GDP is at 19.7%, sovereign foreign currency debt /GDP at 3.8% and investment inflows /GDP at 1.5%. Also, the Government is not planning to go overboard with its external borrowing programme. However, we still recommend that a strong balance of payment situation (CAD is only 2.1% of GDP) and a fairly stable exchange rate is a must for long term foreign borrowing and a prudential limit must be set for such borrowings as a % of GDP. Additionally, RBI should bring down the forward premia cost to keep the interest of FPI in existing rupee bonds.

We believe the direct benefit of a lower cost of borrowing may not be significant. This is because of the swap cost that is always associated with such borrowings. However, the indirect benefit will be significant as with the bond yields softening it will help banks to increase their bottom-line through treasury profits. This will have positive impact on provisioning ratio of the banks. We envisage that the treasury profit to provisioning ratio of Indian banks would touch new highs in FY20, reminiscence during FY02 to FY04.

The Government has to now, take the bond issue as a starting point for encouraging further capital inflows and consider the complementary issue of attracting FDI as a cornerstone of supplementing domestic with foreign capital.

- ◆ The Union Budget has proposed that Government would start raising a part of its gross borrowing programme in external markets in external currencies. Borrowing through sovereign bonds has both positive and negative implications. Though overseas borrowing may help the Indian government to borrow at a lower costs since interest rates abroad are generally lower than in India, at the same time India's future loan repayments would be subject to exchange rate fluctuations. Any significant depreciation in Rupee will further increase the repayment cost.
- ◆ Besides, fees, cost-of-carry, hedging cost, etc. are some of indirect costs that are also attached to total cost of borrowing.
- ◆ Apart from this, studies show that some Latin American countries fell into serious trouble after letting their sovereign borrowing rise to 30-40% of GDP. In the 1960s and 1970s, many Latin American countries, notably Brazil, Argentina, and Mexico, borrowed huge sums of money from international creditors for industrialization, especially infrastructure programs. After 1973, private banks had an influx of funds from oil-rich countries which believed that sovereign debt was a safe investment. Mexico borrowed against future oil revenues with the debt valued in US dollars, so that when the price of oil collapsed, so did the Mexican economy. As interest rates increased in the US and in Europe in 1979, debt payments also increased, making it harder for borrowing countries to pay back their debts. Further, deterioration in the exchange rate with the US dollar had led to debt crisis.
- ◆ Cross country data on sovereign external debt to GDP ratio shows that India is at a significantly comfortable position when it comes to its external debt as compared to peer countries.



Source: SBI Research

| International Capital Market Financing                |  |
|---|--|
| Pros  | Cons   |
| Less dependency on limited domestic borrowing sources | The discipline that market imposes can be perceived as restrictive   |
| No upfront conditionality                             | FX risk, possible downward spiral if debt service weighs on currency   |
| Signal of "country strength"                          | Refinancing risk: typical bullet structure means a large redemption at one time with uncertain future market access  |
| Reduced refinancing risk due to longer maturities     | Requires longer-term commitment as additional bonds would need to be issued to cover the repayment of the first one, etc. First-time issuers need to be aware that they will have to continue to provide ongoing information to investors, monitor the markets, etc. |
| Large volume possible in one issuance                 | Fees add to total cost   |
| Execution in 2-3 months                               | Cost of carry for large proceeds   |
| Interest rate can be lower than domestic rate         |  |

Source: SBI Research

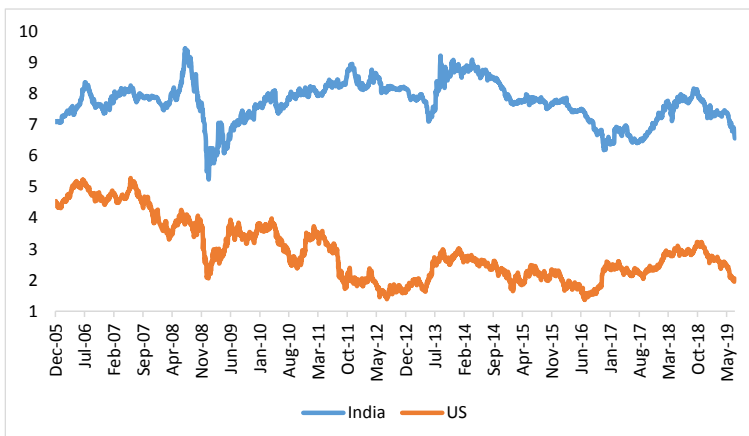
## EXTERNAL BORROWING AND MAJOR CONCERNS

- ◆ We believe India's low government external debt GDP ratio, strong balance of payment and fairly stable exchange rate will augur well for long term foreign borrowing. Looking at the yield differential between India's 10yr G-sec vis -a-vis US 10yr G-sec, it is clearly possible that interest saving will be close to 3.0%.
- ◆ In simple economic parlance, reasonable levels of foreign borrowing by an emerging market are likely to enhance its economic growth. Capital inflows from developed countries can supplement the relatively low level of domestic savings and boost investment in the recipient country, leading to enormous economic and social benefits.
- ◆ For the first time India is going to issue bond in external currencies, so some of the issues like type of bond, i.e., fixed coupon or a floating one, size, maturity, currency of denomination, redemption scheme, etc. have to be kept in mind while tapping foreign market.
- ◆ Second, if the Government of India is going to borrow then there will be fresh assessment of sovereign rating. In the case of Asian and Latin American countries, who had frequently tapped foreign market, their sovereign rating was significant in determining coupon rate.
- ◆ Previous experience shows that (1) foreign funds should be intended primarily for high yielding investment projects, with special emphasis on the tradable sector. (2) Maximize the external effects of an international bond issue by giving the development of domestic sovereign and corporate bond markets special consideration. (3) Take the bond issue as a starting point for encouraging further capital inflows and consider the complementary issue of attracting FDI a central cornerstone of the privatization process.

| Quasi-Sovereign Issues   |               |                     |           |
|--------------------------|---------------|---------------------|-----------|
| Issuer                   | Maturity Year | Spread to Sovereign | YTM (Bid) |
| Bank Of Baroda/London    | 2024          | 150                 | 3.3       |
| Bharat Petroleum Corp    | 2025          | 155                 | 3.4       |
| Export-Import Bk India   | 2024          | 129                 | 3.1       |
| Export-Import Bk India   | 2026          | 120                 | 3.3       |
| Export-Import Bk India   | 2028          | 130                 | 3.4       |
| Hindustan Petroleum Corp | 2027          | 155                 | 3.6       |
| Indian Oil Corp Ltd      | 2024          | 143                 | 3.3       |
| Indian Railway Finance   | 2027          | 156                 | 3.6       |
| Ntpc Ltd                 | 2024          | 136                 | 3.2       |
| Ntpc Ltd                 | 2026          | 145                 | 3.4       |
| Ntpc Ltd                 | 2028          | 148                 | 3.6       |
| Oil India International  | 2027          | 160                 | 3.7       |
| Oil India Ltd            | 2029          | 175                 | 3.8       |
| Ongc Videsh Ltd          | 2024          | 140                 | 3.4       |
| Power Finance Corp Ltd   | 2027          | 180                 | 3.9       |
| Power Finance Corp Ltd   | 2029          | 193                 | 4         |
| Rec Ltd                  | 2027          | 180                 | 4         |
| State Bank India/London  | 2024          | 135                 | 3.2       |

Source: Sbi Research, Bloomberg

## 10 Yr G-sec Yield India vis-a-vis US (%)



Source: SBI Research

## Sovereign debt issued by Countries

| Country     | Issue Year | Maturity Year | Coupon Rate (%) | Rating | Amount (\$ Bn) |
|-------------|------------|---------------|-----------------|--------|----------------|
| Sri Lanka   | 2019       | 2024          | 6.35            | B      | 34             |
| Indonesia   | 2019       | 2029          | 3.40            | BBB    | 52             |
| Philippines | 2019       | 2029          | 3.75            | BBB    | 106            |
| Mexico      | 2018       | 2028          | 3.75            | BBB+   | 163            |
| Venezuela   | 2011       | 2026          | 11.75           | DD+    | 150            |
| Pakistan    | 2017       | 2027          | 6.88            | B-     | 97             |
| Malaysia    | 2015       | 2025          | 3.04            | A-     | 63             |

Source: SBI Research

## Indian Corporate Bond Issues

| Issuer Name                     | Issue Year | Coupon (%) | Maturity Year | Amount (\$bn) |
|---------------------------------|------------|------------|---------------|---------------|
| Export-Import Bank of India     | 2018       | 3.875      | 2028          | 64.0          |
| Indian Oil Corp Ltd             | 2019       | 4.75       | 2024          | 63.9          |
| REC Ltd                         | 2018       | 5.25       | 2023          | 50.7          |
| Power Finance Corp Ltd          | 2019       | 4.5        | 2029          | 41.7          |
| Oil India Ltd                   | 2019       | 5.125      | 2029          | 39.4          |
| Power Finance Corp Ltd          | 2018       | 6.15       | 2028          | 35.3          |
| JSW Steel Ltd                   | 2019       | 5.95       | 2024          | 34.7          |
| Indian Railway Finance Corp Ltd | 2019       | 3.73       | 2024          | 34.7          |
| NTPC Ltd                        | 2019       | 3.75       | 2024          | 30.8          |
| ReNew Power Synthetic           | 2019       | 6.67       | 2024          | 30.3          |
| Power Finance Corp Ltd          | 2019       | 3.75       | 2024          | 27.8          |
| NTPC Ltd                        | 2018       | 4.5        | 2028          | 26.1          |
| Delhi International Airport Ltd | 2019       | 6.45       | 2029          | 24.3          |

Source: SBI Research, Bloomberg

- ◆ Bond issued by Indian corporates have coupon rates varying between 3.75% and 6.67%, depending on various parameters (tenure, rating of corporates) etc.
- ◆ Meanwhile, papers issued by Indian quasi-sovereigns have their spreads varying from as low as 120 bps to as high as 193 bps and the YTM (bid) is between 3.1 to 4%.

## IMPROPER TO COMPARE DEBT CRISES OF ASIAN AND LATIN AMERICAN COUNTRIES WITH INDIA

- ◆ This section is intended to give a robust comparison of economies across the world.
- ◆ There have been two types of debt crisis in the world. One is domestic currency debt crisis where debt originated in domestic currency. Notable examples of this type of crises in the recent period are: Norway (1990), Japan (1991), US (2007) and various European countries in 2008. The other one is non-domestic currency debt crises where debt originated in foreign currency. Notable examples in the recent period are: Brazil (1987-95), Mexico (1991-05), Thailand (1993-04), Argentina (1998-12), Russia (2012-16), etc.

### THREE PHASES OF NON DOMESTIC DEBT CRISIS

#### Bubble Phase

- ◆ In the first stage of the bubble, debts rise faster than the income, and they produce accelerating strong asset returns and growth. This process is generally self-reinforcing because rising incomes, net-worths, and asset value raise borrowers' capacities to borrow.
- ◆ Bubbles usually start as over-extrapolation of justified bull markets. The bull markets are initially justified because lower interest rate makes investment assets more attractive so they go up, and economic condition improve, which leads to economic growth and corporate profits, improved balance sheets and the ability to take on more debt.
- ◆ As the assets go up in value, net worth and spending/income levels rise. The boom also encourages new buyers who don't want to miss out on the action to enter the market, fueling the emergence of bubble. As a bubble nears its top, the economy is most vulnerable, but people are feeling the wealthiest and the most bullish.

#### Depression Phase

- ◆ As the depression begins, debt defaults and restructuring hit the various players, especially leveraged lenders, like an avalanche. Both lenders' and depositors' justified fears feed on themselves, leading to runs on financial institutions that typically don't have the cash to meet them unless they are under the umbrella of Government protections. Cutting interest rates doesn't work adequately because the floors on risk-free rates have already been hit and because as credit spread rise, the interest rates on risky loans go up, making it difficult for those debts to be serviced. Interest rate cuts also don't do much to help lending institutions that have liquidity problem and are suffering from runs. At this phase of the cycle, debt defaults and austerity dominate

#### Reflation Phase

- ◆ Eventually the system gets back to normal, though the recovery in economic activity and the capital formation tends to be slow. It typically takes roughly 5 to 10 years (lost decade) for real economic activity to reach its former peak level.

#### The Bubble Phase

| Indicators                              | Change during Bubble | Range    |
|---|----------------------|----------|
| 1. Debt growing faster than the incomes | 40%                  | 14-79%   |
| Debt growing rapidly                    | 32%                  | 17-45%   |
| Income growth high but slower than debt | 13%                  | 8-20%    |
| 2. Equity market extend rally           | 48%                  | 22-68%   |
| 3. Yield curve flattens (SR-LR)         | 1.40%                | 0.9-1.7% |

Source: SBI Research

#### The Depression Phase

| Indicators                                | Average | Range          |
|---|---------|----------------|
| 1. Length of contraction (months)         | 55      | 22-79          |
| 2. Size of FX decline vs. Gold            | -44%    | (-58% to -37%) |
| 3. Peak Money Creation (% of GDP, annual) | 4%      | 1-9%           |
| 4. Peak Fiscal deficit                    | -6%     | (-14% to -1%)  |

Source: SBI Research

#### The Reflation Phase

| Indicators                                | Average | Range          |
|---|---------|----------------|
| 1. Length of equity drawdown (months)     | 119     | 60-249         |
| 2. Length of GDP drawdown (months)        | 72      | 25-106         |
| 3. Change in debt-to-GDP post-stimulation | -54%    | (-70% to -29%) |

Source: SBI Research

### SOVEREIGN RATING & CRISIS

- ◆ If we look at the foreign currency long term sovereign ratings of countries that witnessed debt crisis (Latin American crisis and East Asian crisis) at that time and compare them with the current ratings, all but Argentina, Thailand and Indonesia have been upgraded. The sovereign ratings of only these three countries were downgraded during the year of their crisis.
- ◆ Yields on India's 10 year G-sec paper is higher than many of these countries, including Chile, Colombia, Peru, Thailand, Malaysia and the Philippines.

#### S&P Sovereign foreign currency rating (LT)

| Countries        | Year of Crisis | Rating during crisis year | Current rating | 10 year G-Sec yield |
|------------------|----------------|---------------------------|----------------|---------------------|
| Brazil           | 1990           | B (1994)                  | BB-            | 7.377               |
| Chile            | 1981           | BBB (1992)                | A+             | 3.303               |
| Colombia         | 1998           | BBB-                      | BBB-           | 5.977               |
| Argentina        | 1989           | BB- (1993)                | B              | -                   |
|                  | 2001           | BB-/SD                    |                |                     |
| Mexico           | 1994           | BB+ (1992)                | BBB+           | 7.335               |
| Peru             | 1987           | BB (1997)                 | BBB+           | 4.564               |
| Turkey           | 2000           | B+                        | B+             | 15.545              |
| Russia           | 2014           | BBB-                      | BBB-           | 7.36                |
| Bulgaria         | 1995           | B (1998)                  | BBB-           | -                   |
| Thailand         | 1997           | A / BBB                   | BBB+           | 1.977               |
| Indonesia        | 1997           | BBB-/BB+                  | BBB            | 7.202               |
| Malaysia         | 1997           | A+ / A                    | A-             | 3.618               |
| Philippines      | 1997           | BB+                       | BBB+           | 4.969               |
| <b>Memoranda</b> |                |                           |                |                     |
| China            |                | BBB+ (1997)               | A+             | 3.172               |
| India            |                | BBB (1990)                | BBB-           | 6.703               |

Source: SBI Research, S&P capital IQ

## Case Study of Non-Domestic Currency Debt Crises

| Countries (Crisis Years) | Bubble Phase (%) |                           |                        |          |            |          | Depression Phase (%)           |           |                     |                      |                         |   | Reflation Phase                             |   |
|--------------------------|------------------|---------------------------|------------------------|----------|------------|----------|--------------------------------|-----------|---------------------|----------------------|-------------------------|---|---|---|
|                          | Debt/GDP         | Foreign Currency Debt/GDP | Investment Inflows/GDP | CAD/GDP  | GDP Growth | GDP gap  | Decline in capital funding/GDP | GDP fall  | Decline in currency | Drawdown in reserves | Decline in stock prices | Increase in debt/GDP due to currency fall | Number of years for GDP to reach prior peak | Number of years for recovery in equity prices |
| Chile (1978-95)          | 145              | 32                        | 14                     | 11       | 7          | 11       | 40                             | 14        | 50                  | 53                   | 74                      | 73  | 5   | 9   |
| Peru (1986-95)           | 184              | 182                       | -                      | 3        | 5          | 11       | -                              | 30        | -                   | -                    | 91                      | 106                                       | 9   | -   |
| Brazil (1987-95)         | 177              | 26                        | 3                      | -        | 3          | 7        | -                              | 7         | 19                  | 28                   | 70                      | 40  | 1.4   | 3   |
| Mexico (1991-05)         | 85               | 25                        | 8                      | 7        | 4          | 3        | 10                             | -         | 37                  | 100                  | 66                      | -   | 2   | 10  |
| Bulgaria (1995-03)       | -                | 82                        | -                      | 4        | -          | -        | 6                              | -         | 96                  | 75                   | -                       | 13  | 8   | -   |
| Thailand (1993-04)       | 183              | 51                        | 15                     | 9        | 8          | 8        | 34                             | 14        | 19                  | -                    | 87                      | 36  | 5   | 23  |
| Indonesia (1994-12)      | 104              | 51                        | 5                      | 3        | 7          | 13       | 13                             | 14        | 110                 | 23                   | 89                      | 132                                       | 5   | 13  |
| Korea (1994-01)          | 163              | 27                        | 8                      | 3        | 8          | 5        | 9                              | 9         | 50                  | 24                   | 75                      | 19  | 1.7   | 9   |
| Malaysia (1991-01)       | 212              | 39                        | 6                      | 8        | 10         | 9        | 5                              | 9         | 24                  | 27                   | 83                      | 10  | 2   | 14  |
| Philippines (1994-08)    | 95               | 51                        | 12                     | 5        | 5          | 2        | 19                             | 3         | 29                  | 60                   | 79                      | 24  | -   | 16  |
| Colombia (1995-08)       | 58               | 30                        | 8                      | 5        | 3          | 5        | 8                              | 7         | 45                  | 37                   | 66                      | 12  | 4   | 7   |
| Turkey (1997-03)         | 60               | 46                        | 3                      | -        | 2          | 9        | 10                             | 10        | 12                  | 100                  | 78                      | 9   | 2   | 6   |
| Argentina (1998-12)      | 78               | 47                        | 11                     | 5        | 0          | 9        | 10                             | 15        | 77                  | 66                   | 82                      | 118                                       | 5   | 7   |
| Russia (2005-11)         | 66               | 21                        | 10                     | -        | 8          | 8        | 21                             | 8         | 21                  | 44                   | 71                      | 17  | -   | -   |
| <b>Average</b>           | <b>124</b>       | <b>51</b>                 | <b>9</b>               | <b>6</b> | <b>5</b>   | <b>8</b> | <b>15</b>                      | <b>12</b> | <b>45</b>           | <b>53</b>            | <b>78</b>               | <b>47</b>                                 | <b>4</b>                                    | <b>11</b>                                     |
| <b>Memo:</b>             |                  |                           |                        |          |            |          |                                |           |                     |                      |                         |   |   |   |
| India                    | 19.7             | 3.8                       | 1.5                    | 2.1      | 7          |          |                                |           |                     |                      |                         |   |   |   |
| Source: SBI Research     |                  |                           |                        |          |            |          |                                |           |                     |                      |                         |   |   |   |

## THE CASE FOR INDIA

- It is expected that Government will go for \$10 billion (around Rs 70,000 crore or 10% of gross market borrowings) worth of sovereign bonds initially. This amount is merely 2.3% of total India's current FX reserves and 29% of net FDI flows in FY19. We believe the direct benefit of a lower cost of borrowing may not be significant. This is because of the swap cost that is associated with such borrowings. However, the indirect benefit will be significant as with the bond yields softening as it will help banks to increase their bottom-line through treasury profits. This will have positive impact on provisioning ratio of the banks. We envisage that the treasury profit to provisioning ratio of Indian banks would touch new highs FY20, reminiscence during FY02 to FY04. Treasury profit to provisioning stood at 62% in FY04 but declined substantially to 3.3% in FY12. The trend reversed and increased to 34.6% in FY17 but declined again in FY18. With the decline in G-sec yields, banks will create a provisioning buffer and expected to increase the ratio, going forward.
- The data of countries that plunged into non-domestic currency debt crisis indicates that India's position is significantly better and it is foolhardy to make any comparison. In these countries in the bubble phase debt-to-GDP rose to around 125% and average CAD was more than 5% of GDP. In India's case, the sovereign external debt is less than 4% and total external debt is less than 20% of GDP, CAD is only 2.1% of GDP.
- Given India's robust economic and political situation, we believe that this is the best time towards cheaper sources of borrowings. However, as a matter of caution and adequate prudence, there should be a predefined limit beyond which India should not borrow. Also, the duration, coupon rate all could be determined by looking into current papers in international markets.

## Arithmetic of Sovereign Bond

|                                     |       |
|-------------------------------------|-------|
| Sovereign Bond (\$ bn)              | 10    |
| % of forex reserves                 | 2.30% |
| % of net FDI flows                  | 29%   |
| As a percentage monthly ECB raising | 79%   |
| Source: SBI Research                |       |

## Treasury Profit to Provisioning Ratio (%) of Indian Banks



Source: SBI Research

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