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Technical Assistance Consultant’s Report

Project Number: TA-9332 ARM

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Armenia: Strengthening Public Debt Management

Interim Report

Prepared by: Arindam Roy

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For: Asian Development Bank

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**CURRENCY EQUIVALENTS**

(as of December 2017)

Currency Unit – Dram (AMD)

AMD1.00 = 0.002 $

$1.00 = 484.10 AMD

**ABBREVIATIONS**

|  |  |  |
| --- | --- | --- |
| ADB | – | Asian Development Bank |
| AMD | - | Armenian Dram |
| ATM | – | Average Time to Maturity |
| CBA | – | Central Bank of Armenia |
| DMFAS | – | Debt Management and Financial Accounting System |
| DMOSB | - | Department of Management of Obligations to the State Budget of RA |
| DSA | – | Debt Sustainability Analysis |
| GDP | – | Gross Domestic Product |
| G-Sec | - | Government Securities |
| ICD | - | International Cooperation Department |
| IMF | – | International Monetary Fund |
| LMO | – | Liability Management Operations |
| PDMD | - | Public Debt Management Department |
| MoF | – | Ministry of Finance |
| NASDAQ OMX | – | NASDAQ Stock Exchange Armenia |
| MTDS | – | Medium-Term Debt Management Strategy |
| TA | – | Technical Assistance |
| TOR | – | Terms of Reference |
| T-bills | – | Treasury Bills |
| T-bonds | – | Treasury Bonds |
|  |  |  |

**NOTE**

In this report, $ refers to US Dollars

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1. INTRODUCTION
2. Country Background
3. The Asian Development Bank (ADB) is supporting the Government of the Armenia (Government) with a Technical Assistance Program (TA) TA-9332 ARM on Strengthening Public Debt Management as part of its Public Efficiency and Financial Markets Program.
4. As a small, landlocked economy, Armenia is exposed to external shocks. Armenia’s real Gross Domestic Product (GDP) growth is expected to revive to 7.5 percent in 2017 after stagnating to 0.2 percent in 2016 following a slowdown since 2013 (Table 1)[[1]](#footnote-1). A combination of low commodity prices of copper, slowdown in growth of its main trading partners including Russia and declining remittances impacted Armenia’s macroeconomic stability in recent years[[2]](#footnote-2).
5. This externally-driven macroeconomic volatility strained the conduct of fiscal policy, compounded by relatively low tax revenues and ensuing thin discretionary spending buffers. Fiscal deficit swelled to 5.5 percent of GDP in 2016 due to countercyclical fiscal policies supported by expansionary monetary policy, leading to a fiscal consolidation program in 2017 which aims to limit fiscal deficit to 2.7 percent of GDP by 2018. Current account deficit is projected to widen moderately after contracting to a historical low of 2.4 percent of GDP in 2016. The level of forex reserves which increased to 5.8 months of imports in 2016 is projected to decline to 5.1 months by 2018.

Table 1: Macroeconomic Indicators for Armenia

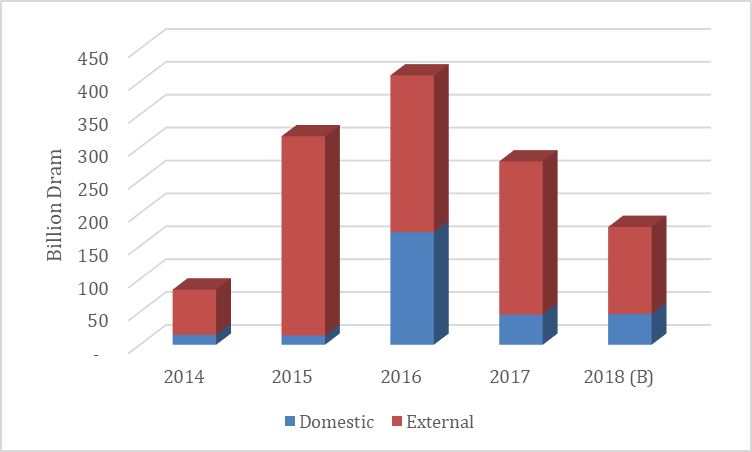
|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Unit** | **2014** | **2015** | **2016** | **2017** | **2018\*** |
| Real GDP Growth | % | 3.6 | 3.2 | 0.2 | 7.5 | 4.5 |
| Fiscal Balance | % of GDP | -1.9 | -4.8 | -5.5 | -3.3 | -2.7 |
| CPI Inflation | % (Annual Average) | 3.0 | 3.7 | -1.4 | 1.2 | 3.3 |
| Broad Money Growth | % | 8.3 | 10.8 | 17.5 | 10.9 | 6.3 |
| Current Account Balance | % of GDP | -7.6 | -2.6 | -2.2 | -2.3 | -3.1 |
| Public Debt | % of GDP | 43.7 | 48.7 | 56.6 | 58.8 | 56.1 |
| Forex Reserves Adequacy | Months of Imports | 3.3 | 4.8 | 5.8 | 5.1 | 5.1 |
| Exchange Rate Change | % (Drams per USD) | -1.5 | -14.9 | -0.5 | -0.7 | - |

\*: Budget Estimates

Source: State Budget 2018 and Central Bank of Armenia

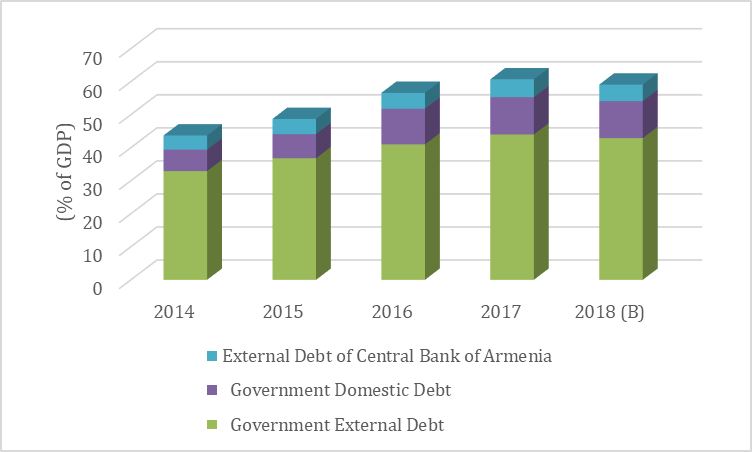
1. Banks dominate the financial system, accounting for 88.4 percent of financial assets at the end of 2016. With a well-capitalised banking sector, lending to the economy picked up to double digit growth levels after remaining stagnant in 2015. However, the banking system remains highly dollarized at more than 54 and 60 percent of its deposits and loans respectively in 2016 although it has declined marginally in recent years.
2. The growing fiscal deficit since 2015 was mainly financed through external borrowings in excess of 80 percent of net borrowings except in 2016 (Figure 1). External borrowings were in the form of external loans except in 2015 when issuance of Eurobonds by $500 million covered 43 percent of total net borrowings. In 2016, the share of domestic borrowings increased significantly to 42 percent of total net borrowings with increased supply of government securities under favorable market conditions. In 2017, share of net domestic borrowings budgeted at 26 percent, was lower in terms of actual realization at 16 percent in view of the widening of the budgeted fiscal gap. The State budget for 2018 projects a higher share of domestic borrowings at 26 percent, with the remaining 74 percent to be covered exclusively from external loans. To limit the external debt exposure, the Government recently introduced measures to prohibit new contraction of external loans and instead borrow from existing pipeline of loans which remains undisbursed, which is adequate to finance the fiscal gap.

Figure 1: Financing of Fiscal Deficit



1. Armenia is classified as a lower-middle income economy[[3]](#footnote-3), having limited access to concessional finances. Majority of its borrowing is on non-concessional terms from official creditors. Bilateral and multilateral financing sources are predominantly used for project finance. Multilateral lending also covers budget support finance.
2. Public Debt
3. Armenia’s public debt increased significantly from 43.7 percent of GDP in 2014 to 58.8 percent in 2017[[4]](#footnote-4) (Figure 2). The jump by 15.1 percentage points of GDP for public debt is due to the combined impact of subdued economic activity, widening fiscal deficit and the sharp exchange rate depreciation in 2015. There was also an over execution of foreign funded projects during 2015-16. Government debt increased from 39.4 percent in 2016 to 53.6 percent in 2017. Although Armenia’s public debt remains sustainable, its high share of foreign currency debt continues to be an important source of vulnerability[[5]](#footnote-5). An adverse growth shock would have the largest impact on debt dynamics and government financing needs[[6]](#footnote-6). Given the high volatility in growth rates over the past decade, realisation of such growth shocks is relatively unlikely. On the other hand, under standardised shocks with moderate deterioration in the debt trajectory, exchange rate depreciation has the largest impact on debt level. Given that macroeconomic shocks are usually correlated between economic growth, fiscal balance and exchange rate movements, a combination of shocks could negatively impact both the debt level, the debt dynamics and financing needs.

Figure 2: Public Debt Burden



1. Interest payment on Government debt exhibited a rising trend, estimate to increase from 1.3 percent of GDP in 2014 to 2.4 percent by 2018. In terms of share in state revenue without grants, interest payment is estimated to increase from 5.5 to 10.3 percent.

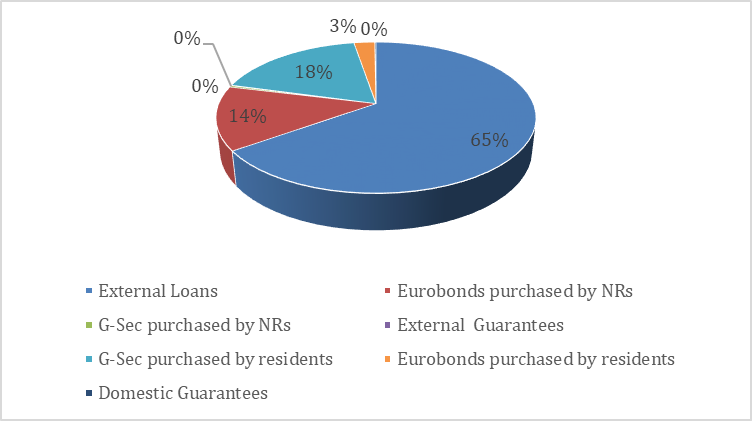
1. Public debt exceeded the 50 percent threshold since 2016 as set in the extant Law on State Debt which triggered the corrective mechanism under the fiscal rule[[7]](#footnote-7). The debt law which provided insufficient operating guidance to fiscal policy, was procyclical in good times, and not flexible enough to deal with severe economic shocks. Consequently, the debt law was amended in 2017 with the inclusion of a lower debt ceiling of 40 percent of GDP in which case the government’s capital expenditure should exceed the fiscal deficit. Under the 50% ceiling, the need to ensure the growth of current expenditures is added to the previous requirement. Under the 60% ceiling, the approaches are even more toughened, and current expenditures are tied to domestic revenues.
2. At the end of 2017, total public debt stood at AMD 3,279.6 billion of which government debt was AMD 2,998.4 billion and external debt of the Central Bank of Armenia was AMD 291.2 billion (US$ 0.6 billion). The external public debt was AMD 2,660.0 billion (US$ 5.5 billion) and domestic public debt at AMD 619.5 billion (Table 2).

Table 2: Evolution of Public Debt in Armenia

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2014 | 2015 | 2016 | 2017 |
| Public Debt | *2,109.6* | *2,456.3* | *2,875.6* | *3,279.6* |
| Government Debt | 1,900.6 | 2,225.9 | 2,631.4 | 2,988.4 |
| External Debt | *1,588.9* | *1,857.5* | *2,081.4* | *2,368.9* |
| External Loans | 1,275.3 | 1,420.4 | 1,635.7 | 1,946.6 |
| Eurobonds purchased by non-residents | 313.1 | 436.4 | 437.7 | 409.0 |
| Govt. Securities purchased by non-residents | 0.4 | 0.7 | 8.0 | 9.7 |
| External Guarantees | - | - | - | 3.6 |
| Domestic Debt | *311.7* | *368.4* | 550.0 | 619.5 |
| Domestic Loans | 1.9 | - | - | - |
| Govt. Securities purchased by residents | 289.4 | 320.0 | 500.3 | 540.0 |
| Eurobonds purchased by residents | 19.4 | 47.4 | *46.3* | *75.1* |
| Domestic Guarantees | 1.0 | 1.0 | 3.4 | 4.4 |
| External Debt of Central Bank of Armenia | 209.0 | 230.4 | 244.2 | 291.2 |
| Guaranteed by Government | 71.2 | 68.1 | 70.8 | 76.7 |

1. In 2017, 79.3 percent of total government debt is external debt (US$ 4.9 billion) with external loans and Eurobonds held by non-residents accounting for 65.1 percent (US$ 4.0 billion) and 13.5 percent (US$ 0.8 billion) of total debt respectively (Figure 3). Domestic government securities held by non-residents comprise 0.3 percent of total debt. Guarantees on external debt which has been issued for only one loan in 2017 account for 0.1 percent of total debt. Domestic debt accounts for the remaining 20.7 percent of total government debt dominated by government securities held by residents at 18.1 percent. Residents holding Eurobonds accounted for 2.5 percent of total debt (US$ 0.2 billion) while domestic guarantees stood at 0.1 percent.

Figure 3: Composition of Government Debt by Instruments

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1. Government external debt is dominated by multilateral loans with a share of 78.8 percent of external loans, followed by bilateral debt at 20.6 percent and commercial loans at 0.6 percent. Legacy IDA debt from the World Bank accounted for 28.1 percent of total external loans followed by ADB loans at 16.0 percent and IBRD debt from the World Bank at 15.7 percent. Within bilateral debt, loans from Russia accounted for 6.3 percent of total external loans followed by Japan at 5.9 percent. The external loan portfolio reflects a mix of concessional and semi-concessional debt with long maturity at 10.4 years at low interest rates of 2.1 percent. However, the share of concessional loans has been declining in recent years with Armenia’s graduation to lower middle-income status.
2. Two outstanding Eurobonds issued in 2013 and 2015 amounting to US$ 500.1 million and US$ 500.0 million matures in September 2020 and March 2025 respectively. The 2013 Eurobond was initially issued for US$ 700.0 million out of which US$ 199.9 million was bought back in 2015 with the proceeds of Eurobond issued in 2015. The coupons on the two bonds are 6.0 percent and 7.15 percent respectively.
3. Outstanding Government securities (G-Sec) issued in the local market comprised 8.9 percent of total government debt. Medium-term Notes and Long-term bonds constituted the bulk of the outstanding G-Sec accounting for 43.9 and 51.4 percent of total G-Sec respectively. Treasury Bills (T Bills) amounted to 4.1 percent of total G-Sec while Savings Bonds comprised 0.6 percent of G-Sec. Medium term Notes comprise bonds of 1.5 – 5 years maturities while Long-term Bonds comprise between 6 – 30 years maturities. The weighted average yield on G-Sec remained at 13.1 percent with the average maturity at 7.6 years.
4. T Bills of different maturities ranging from 1 to 52 weeks have been issued in the past for various purposes. T Bills of 1-3 weeks were issued for cash management, 4-12 weeks for monetary policy and 13-52 weeks for deficit financing. However, since monetary policy operations are now mainly undertaken through repo operations, T Bills have not been issued in recent years for monetary policy purpose as well as for cash management purpose in the designated maturity buckets of 1-12 weeks. Four key maturities of 13, 26, 39 and 52 weeks are consequently issued for T-Bills.
5. Technical Assistance
6. This TA-9332 ARM focuses on Strengthening Public Debt Management as part of its Public Efficiency and Financial Markets Program supporting Armenia’s Ministry of Finance - Debt Management Division to improve operations and make practices and strategies more effective and market development friendly, to include: (i) develop analytical capacity to improving operations and risk management framework through MTDS and other policy guidelines; (ii) propose reforms in issuance of Government securities for the development of capital markets; (iii) analyze the options for a faster repayment of foreign currency debt financed through domestic debt issuance; and (iv) make recommendations to improve cash management. Please refer to Appendix 1 for the TA’s terms of reference (TOR).
7. The terms of engagement of the International Public Debt Management Expert is three field missions, during 1 November 2017 to 30 June 2018, in Yerevan, Armenia.
8. Meetings were conducted with key stakeholders in Armenia relating to public debt management and the development of the domestic government securities market. Individual meetings were conducted with the Ministry of Finance – Public Debt Management Department (PDMD), Department of Obligations Management to State Budget, and International Cooperation Department. A full list of meetings is contained in section 5 of this report.
9. This Inception Report provides initial findings by the Public Debt Management Expert during December 2017 mission and the approach to the TA.
10. INITIAL FINDINGS
11. Debt Management Strategy and Risk Management

Risk Exposure

1. The government debt portfolio is exposed to significant currency risks with 81.6 percent of debt denominated in foreign currency (Table 3). With rising domestic borrowings, the share of foreign currency debt declined marginally in recent years. The high share of foreign currency debt which is growing source of vulnerability reflects the elevated degree of dollarization of the economy which also inhibits development of the domestic capital markets. Despite high share of concessional debt within the foreign currency debt, recent history of significant currency depreciation resulted in increased debt burden[[8]](#footnote-8). Consequently, the Armenian sovereign Eurobonds are rated as "highly speculative," revealing the international bond market's concerns regarding fiscal policy and risks[[9]](#footnote-9). In contrast to concessional external loans, increasing reliance on domestic and non-concessional financing progressively puts upwards pressure on interest payments, reduces the average maturity of the debt portfolio and makes the redemption profile less smooth.

Table 3: Risk Metrics and Benchmarks on Government Debt Portfolio as on end-2017

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk Metrics** | **Units** | **Value** | **MTDS Benchmark** |
| By Residency: | | | |
| Domestic | % of total debt | 20.7 | Min 20% |
| External | % of total debt | 79.3 |  |
| By Currency: | | | |
| AMD | % of total debt | 18.4 |  |
| Foreign Currency | % of total debt | 81.6 |  |
| By Maturity: | | | |
| Average Time to Maturity | Years | 9.0 | 8-11 |
| % of debt maturing in 1 year | % of total debt | 5.3 |  |
| % of debt maturing in 1 year for Govt. Securities | % of outstanding Govt. Securities | 16.4 | Max 20% |
| By Interest Rate: | | | |
| Share of Fixed Rate Debt | % of total debt | 86.5 | Min 80% |
| Share of Floating Rate Debt | % of total debt | 13.5 |  |
| Average Time to Refixing | Years | 7.5 |  |
| Average Interest Rate | % | 4.9 |  |
| Source: Debt Bulletin 2017 | | | |

1. The debt portfolio is well poised with respect to interest rate and refinancing risks. The average time to maturity at 9 years mirrors the long-term structure of the debt while the share of debt maturing in one year at 5.3 percent of total debt reflects liquidity risks are considerably mitigated. The amortization profile of outstanding debt as on end-December 2017, however, reflects a bunching of payments in 2020 mainly due to the bullet redemption of Eurobonds (US$ 500.1 m) and increased amortization of external loans by US$ 50 m between 2018 and 2020 (Figure 4). Redemption of another Eurobond of US$ 500 M in 2025 similarly creates another peak in payments[[10]](#footnote-10). The share of fixed interest rate debt at 86.5 percent of total debt limits risk on interest payments[[11]](#footnote-11).

Figure 4: Amortization Profile of Government Debt as of December 31, 2017

Source: Monthly Summary Bulletin, December 2017.m

Medium-term Debt Management Strategy

1. The Law “On State Debt” specifies that the main objective of the Government debt management is to ensure permanent capacity of meeting financial demands of the Government, thereby reducing the size of debt servicing in the long-term perspective. The following objectives are also defined in the law: optimization of the structure of the Government debt with consideration of potential risks; and coordination of public debt management and monetary policies.
2. In line with the law on State Debt, the Government has adopted a Medium-term Debt Management Strategy (MTDS) since 2011 and published its strategy document annually along with the State Budget. The MTDS is based on a three-year horizon and the scope of the strategy is limited to the Government debt, including guaranties issued by the Government. The analytical framework of the MTDS is based on the MTDS framework developed by the IMF-World Bank[[12]](#footnote-12). While the coverage for the formulation of the MTDS by the authorities is a standard practice as with other countries, there is a possible scope to strengthen the risk analysis within the MTDS analysis. Given that the CBA borrows externally for on-lending to financial institutions, it may be useful if the MTDS framework is widened to capture any exchange rate risks and credit risks associated with such CBA liabilities as this constitutes part of public debt which is used as a target for debt limit.
3. The most recent MTDS for 2018-20 formulated at the end of 2017 aims to finance the fiscal deficit through net domestic borrowings ranging between 20-21 percent during 2018-19 which will be increased to 29.8 percent by 2020 (Table 4). The State budget for 2018, however, projects a higher share of domestic borrowings at 26.3 percent in view of the lower fiscal deficit budgeted for 2018. Given the significant deviations in planned borrowing and its composition between the MTDS and State Budget estimates, it is recommended that the formulation of the MTDS is synchronized with the State Budget to maintain consistency and credibility of the MTDS.

Table 4: 2017-2020 State Budget Deficit Financing by Net Borrowings (AMD billion)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2018 budget program | 2018 MTDS forecast | 2019 MTDS forecast | 2020 MTDS forecast |
| State budget deficit financing by net borrowings | 179 | 231.8 | 227.3 | 167.6 |
| Of which: |  |  |  |  |
| Domestic net borrowings (without promissory notes) | 47 | 47.0 | 48.0 | 50.0 |
| Share, (%) | 26.3 | 20.3 | 21.1 | 29.8 |
| External net borrowings | 132 | 184.8 | 179.3 | 117.6 |
| Share, (%) | 73.7 | 79.7 | 78.9 | 70.2 |

1. As a guiding tool for borrowings in conformity with the desired currency, interest rate and maturity mix; the MTDS uses four benchmarks as limits which include share of domestic debt, share of fixed interest rate debt, average time to maturity of the debt portfolio and the share of government securities maturing in one year. The actual outcome of the indicators in recent years remained within the MTDS benchmarks limits except for one indicator in 2016, thereby demonstrating the effectiveness of the formulated MTDS in guiding borrowing operations (Table 5).

Table 5: Effectiveness of MTDS Benchmarks

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **MTDS Benchmarks** | **Actual Outcome** | | |
|  |  | 2017 | 2016 | 2015 |
| ATM | 8-11 years | 9.0 | 9.3 | 9.7 |
| % of T Secs maturing in 1 year | Max. 20% | 16.3 | 22.9 | 17.1 |
| Share of fixed rate debt (%) | Min. 80% | 87.4 | 87.5 | 89.5 |
| Share of domestic debt (%) | Min. 20% | 22.3 | 20.9 | 16.55 |

Source: Annual Debt Reports

1. One of the strategic benchmarks related to share of domestic debt, based on residency criterion, tries to mimic the exposure to currency risks. However, given that holders of both domestic government securities and Eurobonds can change between residents and non-residents, the share of domestic debt can be difficult to target on an ex-post basis and is outside the control of debt managers. In contrast, the share of domestic currency debt is a more explicit metrics to manage currency risk which is under the control of debt mangers and is therefore widely used as a benchmark target in MTDS. It is therefore recommended to replace the benchmark on share of domestic debt with the share of AMD debt.
2. A key shortcoming of the effectiveness of the MTDS process is the de-facto delinking of external borrowings as part of the State Budget from the MTDS. The updated MTDS formulated by the PDMD in July every year provides medium-term projections for domestic and external debt for individual years within the context of the benchmark target, reflecting the adopted cost-risk trade-off for the debt portfolio. On the other hand, the State Budget prepared in November every year provides a detailed annual plan for external borrowing in the form of external loans in line with credit availability from external creditors, mainly multilateral and bilateral creditors in the form of semi-concessional loans. Such budgetary projections are undertaken by the Budget Department. In doing so, the objective of maximizing external loans takes a precedence over the borrowing mix indicated by the MTDS, with which it deviates frequently and significantly including the immediate first year of the forecast. External resource mobilization in the form of loans is decided by the senior management in the Government and does not necessarily reflect the MTDS priorities or considerations of cost-risk trade-off for the debt portfolio. The MTDS therefore serves as a guiding tool for domestic borrowings only, which constitutes a small portion of the debt portfolio, thereby diminishing effectiveness and credibility of the MTDS as a strategic planning tool.
3. To enhance the effectiveness and credibility of the MTDS to guide future borrowings, it will be imperative to integrate external borrowing decisions with the MTDS guidance. To minimize the difference between MTDS and State Budget projections on the borrowing mix, a starting point involves the synchronization of the projections for external borrowing envelope between the MTDS and the State Budget by eliminating their lead/lag in its formulation. This would warrant moving the timing for MTDS formulation close to the State Budget preparation. A secondary order for maintaining consistency in the borrowing mix between the MTDS and State Budget would require restricting borrowing decisions to closely match the adopted MTDS targets. This would be especially relevant when the balance of payments position does not act as binding constraint for funding though external borrowings. This would enable debt managers to borrow based on the preferred MTDS composition. A final requirement to ensure that the MTDS serves as the primary tool for borrowing decisions is to provide a set of key guidelines prepared by the PDMD emanating from the MTDS that serves as a guiding tool to the front offices (departments / line ministries) for contracting external loans. Adherence to such guidelines will be imperative to maintain consistency between MTDS and actual borrowing decisions. Such guidelines could be provided based on both quantitative parameters and qualitative factors.
4. There is scope to strengthen the analysis in MTDS through more robust inputs. The baseline scenario projects annual depreciation of 1-2 % for AMD against USD during 2018-20. This could appear to be on the lower side especially when current account deficit is expected to widen, thereby underestimating exchange rate risks. For interest rate projections under baseline scenario, both domestic and international yields are based on the prevailing rates and kept constant throughout the horizon. The scenario does not incorporate the pending hike in US interest rates. Projections of future exchange rates and yields based on macroeconomic and market outlook will result in more robust cost-risk trade-off analysis.

Strategic Issues

1. The MTDS recognizes the high degree of exchange rate risk embodied in the debt portfolio and therefore views that it should reinforce continuous development of the domestic debt market. However, conservative estimates of planned net domestic financing as contained in successive MTDS documents reflects the perceived constraint with absorptive capacity of the domestic market associated with undiversified investor base as also the dollarization of the financial system. Consequently, the strategy estimates the share of domestic debt to rise marginally to 21.2 percent of total Government debt thereby still exposing the portfolio to significant exchange rate risks.
2. An alternative strategy in the MTDS analysis depicting aggressive domestic debt issuance remains marginally inferior to the current strategy mix in terms of cost-risk trade-off[[13]](#footnote-13). The share of foreign currency debt would have reduced to 75.1 percent of total debt by 2020 compared to a share of 80.3 percent for the existing strategy (Table 6). For the aggressive domestic issuance strategy, the debt to GDP ratio turns out to be higher by less than 0.6 percent of GDP under both the baseline and stress test scenarios. In terms of interest to GDP ratio, the aggressive strategy turns out to be higher by less than 0.3 percent of GDP. There will be minimal impact on refinancing risk with the share of debt maturing in one year increasing by 0.6 percent of total debt by 2020[[14]](#footnote-14).

Table 6: Performance of Aggressive Domestic Debt Issuance vis-à-vis Existing Strategy

|  |  |  |  |
| --- | --- | --- | --- |
| Risk Indicators |  | As at end 2020 | |
|  |  | Existing Strategy | Aggressive Domestic Debt Strategy |
| Nominal debt as % of GDP |  | 50.8 | 51.1 |
| Present value debt as % of GDP |  | 49.6 | 55.3 |
| Interest payment as % of GDP |  | 2.2 | 2.4 |
| Implied interest rate (%) |  | 4.7 | 5.0 |
| Refinancing risk | Debt maturing in 1yr (% of total) | 5.4 | 6.0 |
|  | Debt maturing in 1yr (% of GDP) | 2.8 | 3.1 |
|  | ATM External Portfolio (years) | 10.2 | 10.0 |
|  | ATM Domestic Portfolio (years) | 11.5 | 11.9 |
|  | ATM Total Portfolio (years) | 10.5 | 10.4 |
| Interest rate risk | ATR (years) | 8.4 | 8.5 |
|  | Debt refixing in 1yr (% of total) | 25.3 | 23.9 |
|  | Fixed rate debt (% of total) | 79.8 | 81.8 |
| FX risk | FX debt as % of total | 80.3 | 75.1 |
|  | ST FX debt as % of reserves | 5.9 | 5.9 |

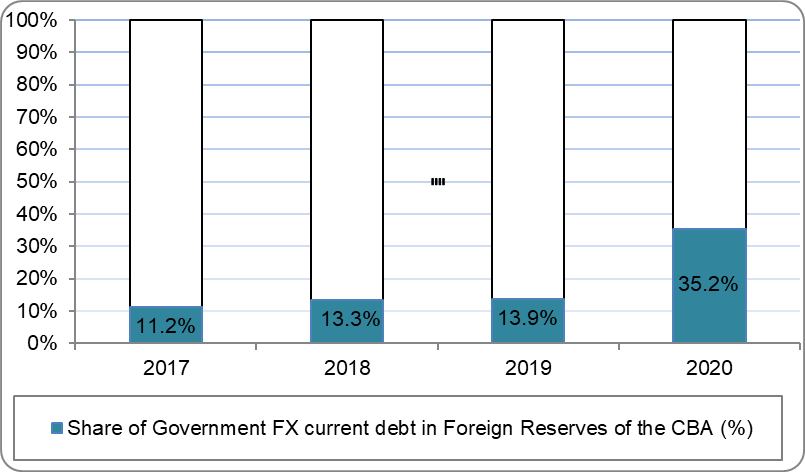
1. A back of the envelope calculation would suggest that with a 5 percent annual depreciation instead of the assumed 2-3 percent annual depreciation would imply around additional 6 percent depreciation between 2018-2020. This would mean that at the end of the horizon (2020), the debt stock for the accelerated domestic debt issuance strategy (at 52.4 percent of GDP) will be less by 0.8 percent of GDP compared to the debt stock under the existing strategy (at 53.2 percent of GDP)[[15]](#footnote-15) (Table7). Incorporating more realistic baseline assumptions about exchange rate depreciation would therefore indicate the aggressive domestic debt issuance strategy to be a superior one compared to the existing strategy.

Table 7: Impact of Realistic Baseline Assumptions – Comparison between Alternative Strategies

|  |  |  |
| --- | --- | --- |
|  | Debt Strategies | |
|  | Existing | Accelerated Domestic Issuance |
| Annual 2-3% depreciation: | | |
| Nominal Debt/GDP | 50.8 | 50.1 |
| Forex Debt Share | 80.3 | 75.1 |
| Forex Debt / GDP | 40.8 | 37.6 |
| Dom Debt / GDP | 10.0 | 12.5 |
| Additional compound 6% depreciation: | | |
| Adjusted Forex Debt / GDP | 43.2 | 39.9 |
| Dom Debt / GDP | 10.0 | 12.5 |
| Adjusted Nominal Debt/GDP | 53.2 | 52.4 |

1. Given the high degree of dollarization of the economy, it will be imperative for the government to devise a strategy for expanding domestic debt issuance within a holistic macro-financial strategy for de-dollarization which could gradually reduce the share of foreign currency debt and associated risks. Such a strategy should also be complemented by monetary and financial sector reforms that supports the development of the debt market. It is therefore recommended to analyze the macroeconomic implications of a faster refinancing of foreign-currency debt through domestic currency debt issuance. The performance of such alternative strategy should also be analyzed within a more realistic cost-risk trade-off analysis of MTDS. Given Armenia’s recent history of bouts in macroeconomic instability, the analysis should also consider the insurance cost of greater resilience achieved through a lower share of external debt. At the same time, the qualitative analysis should attempt to price in a premium reflecting the benefits of a developed financial market through a deep and diversified government securities market.
2. A related issue that is emerging for Armenia is the refinancing of the US$ 500.1 m Eurobond that matures in September 2020. According to current MTDS estimates, maturing external debt in 2020 will account for 35.2 percent of foreign exchange reserves (Figure 5). Against a macroeconomic outlook of widening current account deficit and weak foreign investment flows, redemption of the 2020 Eurobond could be a challenge for the Government.
3. The current MTDS assumes refinancing through the issuance of a 10-year Eurobond for US$ 483 m in 2020. However, given the weak macroeconomic outlook for Armenia and the impending increase in US interest rates by 75 basis points in 2018 along with the potential for capital reversals and exchange rate volatility in emerging market economies, the interest rate for issuing Eurobonds could be significantly higher than 7.7 percent assumed in the MTDS analysis which could further aggravate the debt burden.

Figure 5: Liquidity Coverage of Forex Reserves on Maturing External Debt

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Source: MTDS 2018-20

1. Eurobonds issued by Armenia has so far served to finance its fiscal and external sector gap. Armenia has not benefitted from other externalities associated with sovereign bond issuance. The value of these two Eurobond issuances in the Dublin Exchange as a benchmark for non-sovereign Armenian issuances has been limited (to none).[[16]](#footnote-16) Thus, solutions to address the two redemption challenges posed by past Eurobond issuances must fit within the guiding strategy for Armenia’s public debt management and macro-fiscal strategy going forward, which has the following macro objectives: gradually reduce the exposure to exchange-rate risks and develop local debt markets in AMD to reduce liquidity premiums along the yield curve and strike a more optimal public debt time profile (balancing cost implications of the term premium against refinancing risks). A detailed analysis of the challenges and opportunities related to Eurobond redemption in the context of debt management strategy is provided in Section IV.
2. Assuming that no further benchmarking value is recognized in maintaining sovereign Eurobonds outstanding in international markets, the objective should be to gradually retire the maturing $1.1 billion of debt by a combination of the following options:
3. A compact of dedicated program loans from IFIs, underpinned by a sustained objective of buying back outstanding Eurobonds from the market and/or refinancing maturing external loans over the next 5 years, thus replacing short-term bullet debt structures with long-term semi-concessional debt. This will keep the foreign currency exposure unchanged but smoothen the redemption profile and have lower interest payments;
4. A compact of dedicated program loans from IFIs, underpinned by a sustained objective of bolstering the foreign exchange reserves of the country that would help to reduce currency pressure and drive down the local interest rates. This could pave the way for the government to issue greater amount of domestic debt in AMD and refinance external loans maturing over the medium term by purchasing foreign currency from the market. Although the composition of the foreign currency debt may remain unchanged initially, this will open up to deepen the domestic debt market at lower cost;
5. Currently, residents hold $155m of Eurobonds. A targeted market led debt swap program for residents to replace the foreign currency Eurobonds with domestic bonds denominated in AMD could reduce foreign currency exposure at a higher nominal interest cost due to premiums related to expectation of currency depreciation and liquidity issues.
6. Issuance Strategy and Domestic Government Securities Market

Placement Mechanism

1. Government securities (G-Sec) are auctioned in the primary market through a primary dealer system. Securities are auctioned through a multiple price format using the trading platform of NASDAQ-OMX stock exchange as an agent, which has recently been shifted away from the central bank.
2. The auction process is at variable-price based on competitive bidding. In cases where there is a significant difference between the price of bids, auction allocation is undertaken based on a cut-off established by MoF.The central depository for G-Sec is provided by the CBA. Clearing and settlement are done within CBA, which manages the payment system.
3. The bond instruments sold through the Treasury's custodian for retail investments have been extended from savings coupon bonds T-bills to mediumd-term and long-term bonds. Allocation to agents and retail investors are made at the weighted average weighted yields for an autcion.
4. As dealers / agents, the banks are required to provide simultaneous bid and ask quotes of a specified benchmark government bonds in the NASDAQ OMX Armenia trading system. The market for hedging instruments including interest rate swaps in Armenia is not well developed, which constrain the capacity of primary dealers to warehouse G-Sec. This impacts the absorption capacity of G-Sec by the market.
5. Issuance of G-Secs are undertaken in conformity with the auctioning calendar. Each December, the PDMD publishes an annual calendar for the next year setting the auction schedule, indicating the days of issuance for different types of instruments. Based on the auctioning calendar for 2018, T-Bills will be issued over three weeks within a month on every Monday. Medium-term Notes of 3- and 5-year bonds will be auctioned in the second and third months of each quarter on Tuesday. Issuance of 10 and 30-year bond will be auctioned in the first month of each quarter on Tuesday. The auctioning calendar does not provide any set dates for buybacks.

Issuance Strategy

1. The issuance process is based on sound international practices with a high degree of transparency. The State Budget published every December provides information on the annual borrowing volumes in net and gross terms from domestic and external sources. An annual borrowing plan is prepared by the PDMD for its internal use which determines the volumes of issuance for different type of instruments by tenor during the year in line with the MTDS and the state budget financing requirement.
2. A monthly issuance plan providing indicative amounts for different securities to be issued the next month is announced regularly prior to each month. The issuance plan also includes information on buyback volume for the identified securities. The government now plans to provide a quarterly issuance plan which will be an improvement from the monthly issuance plan and would support better market planning and promote more predictability from the issuer.
3. Full announcement for issuance occurs at least 3 business days before the auction for T-Bonds. A similar lead time is also practiced for announcement on issuance of T-Bills with more than 13 weeks to maturity. International sound practice requires providing at least 5 business days of advance notice for issuance. However, for T-Bills with less than 13 weeks to maturity, the lead time is reduced to one business day before the auction. The announcement is posted on the websites of both MoF and NASDAQ OMX.
4. At the end of 2017, the bond market is fragmented comprising 21 lines of securities of varying maturities between 3 to 30 years of original maturity. Currently, 6 benchmark bonds have been designated with key residual maturities of 1, 3, 5, 10, 20 and 30 years (Table 8). Issuances during 2017 were limited to 3, 5, 30-year maturities as re-openings, while a 10-year bond was issued as a new line outside the designated benchmark bonds[[17]](#footnote-17). Since the 10-year benchmark bond (AMGB1029A250) had a residual maturity of less than 9 years at the beginning of 2017, the new line of 10-year bond was issued as a potential new benchmark bond.

Table 8: Profile of Benchmark Bonds as on 20 December 2017

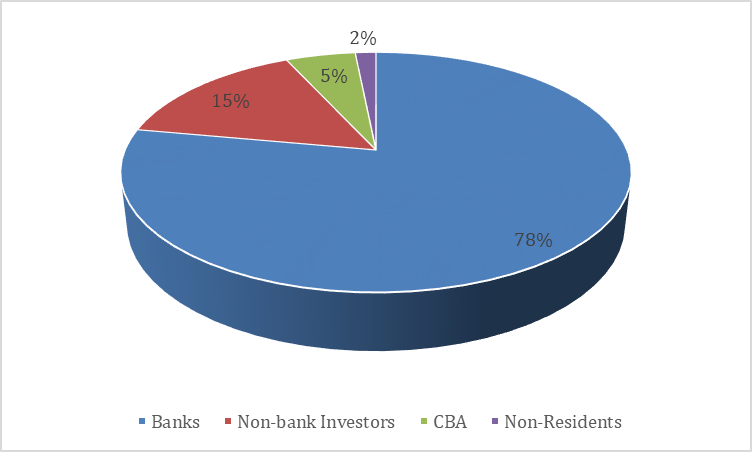
|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ISIN | Initial Maturity | Residual Maturity | Amount Outstanding | |
| (years) | | (AMD bn,) | Share (%) |
| AMGN36294194 | 3.0 | 1.4 | 47.5 | 19.0 |
| AMGN36294202 | 3.0 | 2.4 | 27.2 | 10.9 |
| AMGN60294227 | 5.0 | 4.4 | 27.6 | 11.0 |
| AMGB1029A250 | 10.0 | 7.9 | 42.6 | 17.0 |
| AMGB2029A366 | 20.5 | 18.9 | 80.0 | 32.0 |
| AMGB30163472 | 30.0 | 29.3 | 25.2 | 10.1 |

1. Benchmark bonds are designated for a three-month period and revised every quarter depending on the outstanding stock and residual maturity. The minimum stock required for designation of a bond as a benchmark bond is AMD 10 billion which is very low by international standards. For January-March 2018, the 10-year benchmark bond has been replaced by recent 10-year bond issuance in October 2017 (AMGB1029A276). During 2018, new 3 and 5-year bond lines will be issued to replace the existing benchmark bonds.
2. In December 2017, benchmark bonds comprised 47.7 percent of the total outstanding bonds with 6 benchmark issues ranging between AMD 25 – 80 billion. The benchmark bonds with initial maturities of 3, 5, 10, 20.5 and 30 years are dominated by the 20.5-year, 3 years and 10-year bonds respectively. In terms of residual maturities, benchmark bonds are dominated by 18.9, 1.4 and 7.9 years. Despite the designation of benchmark bonds, given the limited size of outstanding stocks, the benefits of benchmark bonds through increased turnover and liquidity are largely absent.
3. The stock of benchmark bonds is relatively small compared to emerging market countries. This is mainly due to the low reliance on domestic bonds compared to external debt. However, even within the current level of issuance, there is a potential to increase the stock of benchmark bonds. However, the increase should be balanced with other considerations like the degree of refinancing risks and the scope of liability management operations like buybacks and switches. At this juncture, while refinancing risks are very low, it would take several years before benchmark bonds can attain sufficient stocks to reflect meaningful refinancing risks. A policy limit on the stock of benchmark bonds would also ensure containment of significant refinancing risks.
4. For increasing benchmark bond issuance, the policy ceilings imposed on the stock of outstanding benchmark bonds can be increased, especially for 10-year bond. Currently, the ceilings on the 20-year benchmark bond is nearly twice that of the 10-year ceiling[[18]](#footnote-18). For most countries, 10-year benchmark bond is the most popular benchmark maturity bearing the largest stock and serves as a good bridge between medium term notes and long-term bonds in the evolution of yield curve. For some benchmark bonds, the current outstanding stock is significantly below the existing policy limits, thereby implying significant potential to increase the size of benchmark bonds.
5. Another way to increase the outstanding stock of a benchmark bond is to re-designate an existing benchmark bond with the passage of time to a new benchmark bond for a different (lower) maturity. The current practice is that once a benchmark bond deviates significantly below its original maturity, it is no longer treated as a benchmark bond and is not reopened. Consequently, the benchmark bond quickly turns illiquid. By continuing to re-open an existing benchmark bond, re-designated as a new benchmark could lead to a higher stock for that benchmark[[19]](#footnote-19). Such a strategy will also obviate the need to buyback non-benchmark bonds which have a potential to attain a new benchmark status, thereby savings on buyback costs.

Investor Diversification

1. Given the dominance of the banks within the financial system, banks remain the major investor for government bonds despite its low investment as part of its asset base. Banks accounted for 77.9 percent of total outstanding bonds at the end of October 2017 (Figure 6). The share of financial assets available for sale and held at fair value at the end of 2016 comprised 8.7 percent of its total assets.
2. In contrast, with the share of non-life insurance companies at 1 percent of the assets of the financial system, their investment in securities (including G-Sec) as part of technical reserves stood at 20.7 percent of its asset base. There is currently no life insurance business in Armenia which typically plays a dominant role as an investor base. For pension funds which holds less than 1 percent of financial system assets, 39 percent of its assets are invested in G-Sec with average maturity of 6.5 years reflecting their preference for long-term bonds[[20]](#footnote-20). Non-bank investors comprising insurance companies and pension funds accounted for 15.3 percent of the outstanding stock. The CBA held 5.3 percent for its repo operations while foreign investors accounted for a meagre 1.6 percent of the total bonds.

Figure 6: Investor Base in Government Bonds on October 2017 (% of Outstanding Stock)



1. Banking sector’s investments on G-Sec is mainly motivated by securing access to liquidity from the CBA through repos. Generally, such investments by banks is not guided by the need for portfolio diversification and generation of trading returns as part of its asset liability management framework. It would therefore be imperative for the government to market G-Sec as an asset class for the banking sector apart from liquidity needs complemented with enhancing risk management capacity in banks. For the institutional investors, expansion of the pension fund sector through ongoing reforms; and initiation of life insurance business along with mutual fund industry can create new channels of demand for G-Sec and trading activity. Facility for the institutional investors like the insurance companies to engage in reverse repos can also stimulate greater demand and trading in G-Sec.
2. The financial system has experienced excess liquidity in recent years, especially with muted private sector credit growth. The CBA has been to some extent been constrained in its liquidity management through open market operations (OMOs) due to limited availability of G-Secs and a nascent repo market. With an acceleration in issuances of G-Secs, the CBA may obtain access to a higher volume of G-Secs from the secondary market and undertake outright sales which could drain excess liquidity from the system which are more enduring in nature. At the same time, deepening the repo market with an active inter-bank market through appropriate reforms could support liquidity management by the CBA. However, under existing strategy of moderate issuance of G-Secs, two options could support CBA’s liquidity management operations. First, the government can issue T-Bills exclusively for monetary policy purpose, the proceeds from which should be ring fenced in a blocked account in the CBA to have the desired impact on liquidity. Another alternative could be that the government can recapitalize CBA by issuance of bonds at market prices which could be used for its OMOs. Recapitalization of the CBA could be a potentially contentious issue at this juncture when the government is aiming to steer below the debt limit.

Enhancing Bond Liquidity

1. Notwithstanding the supply of benchmark bonds across key maturities, the yield curve is very steep, a reflection of currency depreciation expectations and time-varying liquidity premium. Real interest rate on T-Bills was as high as 5 percent during the third quarter of 2017 although it has declined since 2016 with the easing of monetary policy. Despite declining yields, the spread of Medium Term Notes at 226 basis points and for Long Term Bonds at 384 basis points with respect to T-Bills remained at elevated levels (Table 9). The G-Sec market is nascent with very high liquidity and term premiums and the cost structure is not underpinned by effective intertemporal arbitrage by market participants and CBA’s effective systemic liquidity management.

Table 9: Average Quarterly Yield on Government Securities (percent)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2016 Q3 | 2016 Q4 | 2017 Q1 | 2017 Q2 | 2017 Q3 |
| CBA Refinancing Rate | 6.75 | 6.25 | 6 | 6 | 6 |
| T-Bill | 7.87 | 6.65 | 7.21 | 6.56 | 6.19 |
| Medium Term Notes | 11.36 | 10.13 | 9.97 | 8.76 | 8.45 |
| Long Term Bonds | 14.16 | 13.65 | 13.18 | 13.03 | 10.03 |

Source: Central Bank of Armenia

1. A lack of liquid financial instruments for banks’ liquidity management, and banks’ level of precautionary reserves in AMD reveals a lack of confidence in the effectiveness of CBA’s systemic liquidity management being sustained into the future. CBA’s interest rate targeting objectives lacks transparency with its inflation targeting statement not being reflected in its policy rate decisions. As such market participants cannot estimate a transparent reaction function for CBA’s policy rate decisions which holds back the development of the interest rate transmission mechanism.
2. The government securities market lacks sufficient depth and liquidity. Annual trading of G-Sec which increased by 82.0 percent during 2016 amounted to an annual turnover ratio of 20.1 percent of the outstanding stock (Table 10). As much as 81.6 percent of the secondary market transactions took place in the interbank market while the NASDAQ-OMX stock exchange accounted for 16.3 percent of the trade. Annual trading activity in NASDAQ which trebled during 2016 increased by 19.3 percent in 2017.

Table 10: Transactions on Government Securities in the Secondary Market

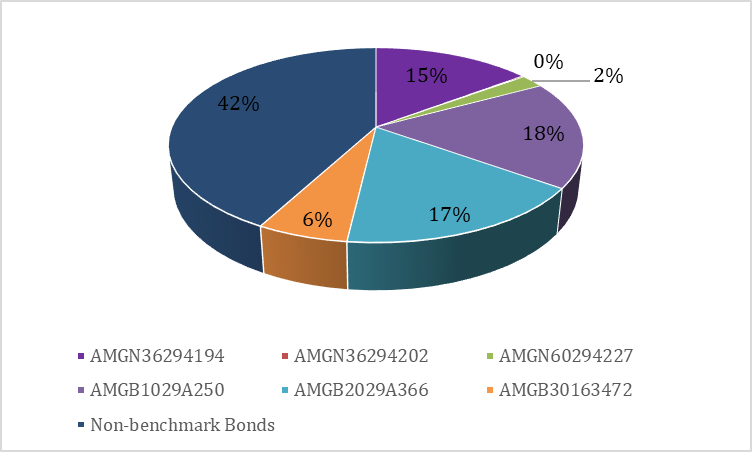
|  |  |  |
| --- | --- | --- |
|  | **2015** | **2016** |
| Number of transactions | 1,425 | 2,366 |
| Total amount of transactions (AMD billion)  of which: | 183.3 | 333.6 |
| *Interbank market* | 168.6 | 272.3 |
| *NASDAQ-OMX Armenia* | 13.7 | 54.3 |
| *CBA transactions* | 1.0 | 7.0 |
| **Secondary market indicators:** |  |  |
| Weighted average time to maturity (days) | 2873 | 3609 |
| Weighted daily average amount (AMD million) | 776.7 | 1,329.2 |
| Daily average number of transactions | 6 | 9 |
| Daily turnover ratio# (%) | 0.06 | 0.08 |

#: The turnover ratio is computed as an average of beginning and closing year stock of government securities.

Source: Annual Report, PDMD, 2016

1. Daily turnover ratio in 2016 remained insignificant at 0.06 of the total stock. The average daily amount of a transaction in 2016 amounted to AMD 147.7 million reflecting low trading volume compared to peer countries. The increased trading activity spread to medium-term and longer-term bonds, albeit in limited amount. The low turnover ratio in trading reflects the “buy and hold” strategy of investors, especially for the insurance companies and pension funds on longer-term bonds.
2. Within the annual volume of AMD 65.1 billion trading in NASDAQ-OMX stock exchange in 2017, benchmark bonds contributed to 65.1 per cent of total trade (Figure 7). However, trading was concentrated for the 10-year benchmark bond (AMGB1029A250) accounting for 17.9 percent of the total trade, closely followed by the 20.5-year benchmark bond (AMGB2029A366) at 16.9 percent and the 3-year benchmark bond (AMGN36294194) at 14.7 percent. The higher share of trading in these benchmark bonds reflects the higher stock of these bonds. Non-benchmark bond accounted for 34.9 percent of total trade, largely reflecting their buyback operations.

Figure 7: Trading of Benchmark Bonds in NASDAQ-OMX in 2017



1. The low liquidity of bonds can also be attributed to the fragmented interbank market, that limits provision of liquidity in the banking system. Repurchase agreements (repos) represent most of the trades in the interbank market with supply driven by the CBA. Banks are reluctant to trade in the interbank market with no broker to ensure anonymity. The NASDAQ OMX Armenia is however attempting to develop an overnight interbank market. Lack of standardized documentation in the form of the Global Master Repurchase Agreement for repos transactions resulted in banks negotiating one-off contracts with counterparties. The absence of a securities lending facility further restricts interbank market activity and its liquidity. Consequently, with a thin and illiquid money market, the monetary transmission mechanism remains weak which impacts the bond market yields and its secondary market activity.
2. The bid-ask spread for benchmark bonds in February 2018 was the lowest for the 3-year benchmark bond (AMGN36294202) at 10 basis points while other benchmark bonds ranged between 26-48 basis points reflecting lack of tightness in the liquidity. The 6 and 10-year benchmark bonds exhibited a spread between 30-32 basis points while the spread of 20 and 30-year bonds ranged between 40 – 45 basis points. The higher spread for the longer-term bonds is due to the uncertainty associated with long-term yields given the potential risk of currency depreciation and time-varying liquidity premium.
3. Although NASDAQ OMX Armenia publishes information on a daily basis about transactions conducted on its exchange, post-trade information from the OTC market does not contain information on the bid-ask spreads and thereby excludes a vital element of information on market liquidity[[21]](#footnote-21). A centralised and consolidated reporting system at the CBA or NASDAQ OMX which covers all important elements of trades including their price and volume need to be developed which can be used to disseminate timely information on a daily basis. Collation and dissemination of such consolidated information on important dimensions of trade by individual securities on a real time basis will be crucial to strengthen price discovery process by various market participants. This, in turn, will enable them to take informed decision on their potential trades in a prompt and secured manner with greater certainty and within a transparent framework, thereby inducing greater trade volumes between counterparties. This will also constitute as the bedrock for developing a representative yield curve from secondary market trades.
4. As privileges, NASDAQ OMX Armenia has granted dealers / agents market-maker status. The requirement for primary dealers to act as market makers, however, does not apply to the over-the-counter (OTC) market. Given that the OTC market caters for a large share of trades, it would be imperative that a homogenous set of dealers / agents assume the same obligations on primary market purchase and market making privileges across both segments of market.

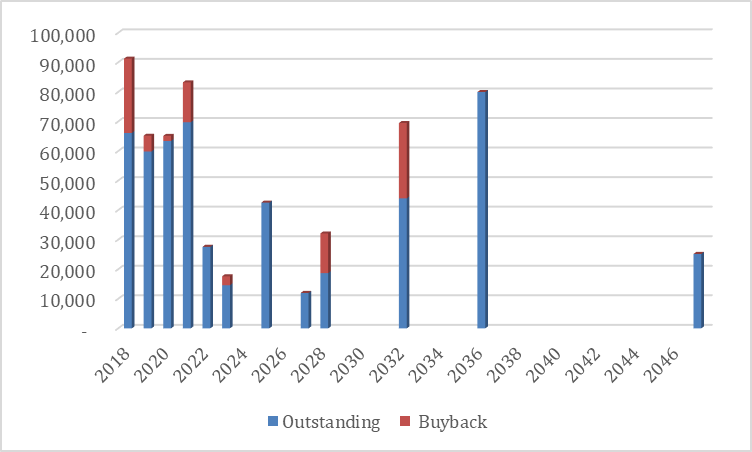
De-dollarization and Development of the Local Currency Bond Market

1. Given the high degree of financial dollarization in Armenia, deepening of the local currency debt market through accelerated volumes of issuance and establishment of a robust benchmark yield curve will require a holistic de-dollarization macro-financial strategy from the authorities. Despite declining interest rates in recent years, the high real interest rate in the economy reflects the risk premia associated with an uncertain economic outlook for inflation and exchange rate. The nexus of high real interest rates and macroeconomic uncertainty has constrained the pace of de-dollarization with a preference for financial assets in hard currencies. However, with the fiscal consolidation program in process, inflation managed to benign level, and the ongoing changes in monetary management framework to manage liquidity, macroeconomic stabilization is expected to be better entrenched in the near future. Consequently, there is a potential to ease real interest rates on Dram denominated assets which could open up greater demand for them leading towards de-dollarization.
2. To support de-dollarization through a shift to greater Dram denominated assets, one of the options in this regard, as adopted in other countries from Latin America and Eastern Europe as part of their de-dollarization drive, could be for the government to issue inflation-indexed bonds that would serve to protect the real value of Dram denominated securities and thereby allay investor concerns about local currency asset returns. Issuance of inflation-indexed bonds (IIBs) will create new sources of demand as an asset class with investors switching from foreign currency assets. At the same time, it will enable anchoring the benchmark yield curve and promote better price discovery process reflecting market expectations.
3. It would, however, be important to make a distinction on the primary motive for issuance of IIBs for Armenia when compared to other countries. Most of the developing countries faced with hyper-inflationary situation over a prolonged period issued this instrument as a measure of last resort for issuance of local currency assets and to elongate their maturity. In contrast, some advanced economies issued this instrument under rising inflationary regime as a signaling mechanism and commitment to control inflation and also to reduce cost for long-term bonds. Finally, a third group, mainly from OECD countries issued this IIBs for achieving financial market completeness.
4. At this juncture, given that Armenia has already been successful to issue local currency bonds across a long tenure over recent years, issuance of IIBs as a last resort measure does not arise. Similarly, given the nascent stage of financial market development, issuances for market completeness at this stage would be a pre-matured measure. However, given the persisting inflation risk premium on Dram denominated assets, which could be biased upwards, issuance of IIBs could attract investors switching from hard currency assets to Dram denominated inflation indexed bonds at the initial stage. Once the price discovery process for IIBs converges to its equilibrium value, information on expected inflation from such bonds could act as an anchor for pricing of nominal long-term bonds which could lead to reduced real interest rates. Such implied inflation expectations could reflect a correction in the upward bias. This will result in interest cost savings on nominal bonds for the Government as also get transmitted in the pricing of other Dram denominated assets thereby supporting de-dollarization. Limited issuances of IIBs in two key medium and long-term benchmarks initially limited up to 10-year maturity will make the yield curve more effective. In addition to assessment of demand from the investor base, the optimum volume of issuance of inflation-indexed bonds will need to be determined by the implications on cost-risk trade-off by broadening the scope of the MTDS to include inflation-indexed bonds as an alternative strategy.

Liability Management

1. As part of buyback operations of G-Sec initiated in recent years through an auction process, PDMD has focused on mitigating refinancing risks over the next five years and retiring illiquid bonds[[22]](#footnote-22). In recent years, significant buybacks were undertaken for previous benchmark bonds maturing during 2018, 2021,2028 and 2032[[23]](#footnote-23) (Figure 8). Notwithstanding the buybacks, the redemption pressure from the outstanding bonds remains relatively high through 2021 ranging between AMD 60 – 70 billion. Buybacks during 2017 amounted to AMD 19.6 billion accounting for 3.7 percent of the total bonds. For 2018, the government plans to undertake liability management operations of which 70-80 percent will be targeted for reducing refinancing risk and 20-30 percent to retire illiquid bonds.
2. Buyback of illiquid bonds with more than two-year residual maturity at a higher cost to the government need to be reviewed through a cost-benefit analysis. This is especially relevant when there is a potential to reduce the stock of illiquid bonds by re-designating earlier benchmark bonds to a new benchmark status as alluded to earlier.
3. It appears that the yields of the bonds announced for buyback operations tend to decline by more than 100 basis points by the time the transactions are made. As such, a cost-benefit analysis of the extra premium paid by the Government for the buyback operations vis-à-vis the mitigation of the refinancing risk profile and the potential enhancement in liquid bonds could be useful to make it more effective as part of liability management operations. At the same time, recent buybacks have targeted on-the-run bonds in the recent past which could have the potential to serve as a benchmark bond for a lower tenor. The Government is now planning to extend liability management to switch operations that would be cash neutral compared to buyback operations.
4. A cogent policy framework with detailed guidelines for both buyback and switch operations need to be formulated as an operating framework. Key objectives for such transactions include mitigation of refinancing risk, increasing liquidity, use of surplus cash to retire debt, and to correct price distortions in secondary market due to open market operations by the central bank. The framework should clearly communicate the key objectives for such transactions. Operations undertaken to mitigate refinancing risks by early redemption of bonds, typically starting 12-18 months before their maturity. Another policy objective of buybacks / switches is to enhance market liquidity by issuing benchmarks to retire illiquid bonds, after consultation with Primary Dealers. The policy framework should guide the selection criterion of the bonds being retired. Such criterion should include bonds nearing maturity, off-the-run bonds, illiquid bonds and high coupon bonds. Guidelines should also include frequency, eligible participants, organization and cost considerations of such operations that reflects cost-risk tradeoff or cost-benefit analysis.

Figure 8: Buyback of Bonds (AMD million) as on 20 December 2017



1. Cash Management
2. The Government has made significant progress in terms of government cash management. Cash flow forecasts prepared by the PDMD are produced on a quarterly, monthly, weekly, and daily basis which has continued to improve and proved to be reliable[[24]](#footnote-24). Overnight cash balances forecasts are available if daily Treasury forecasts are produced. There is an established target on the Treasury’s preferred liquidity buffer, and actions are undertaken on a monthly basis to keep the liquidity buffer at the target level.
3. The major building block of expenditure forecasts is provided by the Expenditures Finance Department by accurately forecasting the dates of payment for +/- 80% of the budget. With the PDMD not receiving forecasts on tax receipts from the State Revenue Committee, the former has to make its projections based on historical trend. Provision of such projections by the State Revenue Committee could further enhance the accuracy of cash flow forecasts, especially on a daily basis. Better coordination between the State Revenue Committee and PDMD would be required to obtain tax projections over forecasting period which can initiated on a quarterly basis and gradually reduced as more capacity develops within the former to make more robust estimates.
4. Armenia is now well poised to move to active cash management which will support monetary policy as also the development of a liquid money market. As such, new instruments should be made available to raise and deploy very short-term resources in the event of cash deficit or surplus. For short-term borrowing, the PDMD cannot borrow from the market through less than 1 week of T-Bills. For deployment of cash surplus, deposit facility is available at the CBA for time deposits of 7 days or more. Availability of repos could help PDMD to undertake cash management on an overnight basis. However, the repo market will need to develop before such operations are undertaken. At the same time, capacity within the PDMD should be developed with respect to counterparty credit risk management associated with repos.
5. Institutional Arrangements
6. A key shortcoming in the institutional arrangements is the role of the PDMD and the Ministry of Finance (MoF) vis-à-vis the line Ministries in the contraction of external loans. Faced with a supply-driven external loans from various creditors and elevated demand for projects from various line ministries, the response by the Government has been to maximize external loans, which frequently exceeds the target volume determined by the MTDS. Domestic financing is in effect a residual financing mechanism, thereby falling short of the MTDS target. This results in actual financing decisions to deviate frequently and significantly from the MTDS targets with consequences for the cost-risk trade-off for the government. This warrants actual financing decisions to be closely aligned with MTDS targets and considerations.
7. As a first step, if future domestic financing availability, investor demand conditions and market conditions are perceived to be within the MTDS baseline scenario estimates, the volume of annual external borrowing as a residual should be targeted over the medium-term in accordance with the external-domestic borrowing mix assumed in the MTDS. It would also be important that the volume of external financing envisaged ensures debt sustainability. The second step involves setting a cap on the quantum of external loans that can be contracted annually based on the relationship between loan commitment amount and its disbursements. The cap on loan contraction can be indicated within a band of +/- 10 percent due to the uncertainty associated with domestic financing conditions and utilization of external loans. This annual cap as determined by the PDMD will require the approval of the Minister of Finance, and preferably issued as a Presidential Decree which needs to be followed in spirit. The determination of the annual target on external loans will also enable PDMD to better plan issuances of government securities in the domestic market to finance the remaining gap, while ensuring close match with the MTDS targets.
8. Another key shortcoming of the institutional arrangements is that the Minister of Finance and PDMD are not involved on the design and negotiation of the projects funded by external loans as also in the choice of the external creditor. When the MoF and PDMD gets involved in the discussion on such project loans related to its financial terms, many of which are standard based on the creditor, it is too late to change the financial terms or the creditor, even when the loan is not in line with the debt management strategy. The only element where the MoF exercise some influence on such project loans is to ensure that the grant element of the loan is at least 30 percent.
9. A change in the institutional arrangement is therefore recommended to ensure external borrowings takes place in conformity with debt management considerations. Involvement of the MoF and the PDMD at the early stages of negotiation of the loan with the line ministries can be a solution to this problem. Anchored on its MTDS, the PDMD can prepare a list of preferred creditors grouped into three broad categories based on their standard loan terms and classify them reflecting varying degree of preference for contracting loans from them. This may imply there may be some creditors who will not be included in the preferred list and with whom no loans will be contracted. While this could be sensitive issue to make such list public, especially with regard to the bilateral or multilateral relations maintained by the Republic of Armenia, formulation of such a list as an internal guideline will ensure that various line ministries adhere to contract loans from such creditors thereby closely aligning the financial structure of the new debt to MTDS target composition. To ensure that all loans are contracted with the preferred creditors, the final authority of approval of loan contraction should be centralized with the Minister of Finance.
10. Similarly, there is a need to ensure that demand for project financing through external loans from various line ministries remains within the overall cap of external loan. This would require establishing a close linkage of comprehensive prioritization of projects in accordance with the national development plan within a multi-year framework with loan contraction which finances such projects. The involvement of the Ministry of Finance at the early stage of project financing proposals through external loans could ensure that decisions on various project financing are made in accordance with the national development priorities. By making it mandatory that all project financing proposals need to be submitted to the Ministry of Finance and processed by PDMD before consultation with potential creditors, the success of such arrangement will be enhanced. For project proposals which may not qualify to be financed through an external loan in any year, either due to prioritization considerations or because of overall loans contracted approaching the cap, it could be placed in a que for consideration in the following year. At the same time, formulation of detailed guidelines for approving a project financed by loans based on economic viability and financial considerations would facilitate better selection of projects and loans. Another area where PDMD can play the role of a facilitator is to guide the line ministry for which the project has passed the viability test in securing a creditor.
11. The Department of Management of Obligations to the State Budget of RA (DMOSB) is formally responsible for all functions related to preparation, issuance and monitoring of Government (state) guarantees and on-lending. However, credit risk analysis related to issuance of guarantees and on-lending is virtually non-existent and there is no capacity within DMOSB. The back and front office related functions take up most of the resources within DMOSB within their limited staff complement. Although the level of guarantees is low, it would be useful to initiate credit risk analytical functions at / in partnership with the Fiscal Risk Management Unit within the MoF which possess better knowledge about sectoral issues on the economy. It would be imperative for the MoF to formulate a policy guideline based on which issuances of government guarantees and decisions on on-lending could be undertaken. Such policy framework should balance between risk considerations and development objectives.
12. As part of State Budget preparation, projected debt service payments for the following year are based on the prevailing exchange rates as on November of the preceding year of the Budget. Based on an agreement between the MoF and the CBA, the CBA externalizes payments on the external debt service payments based on the pre-agreed exchange rate (prevailing rates as on November preceding the Budget year). Deviation of actual exchange rates on the payment transaction date from the pre-agreed rate could lead to either profit or loss for the CBA. In case where the CBA incurs net losses over the budget year, promissory notes are issued to CBA. In case of net profit, such profits deducted from the outstanding promissory notes held by the CBA. The outstanding of such promissory notes is rolled over in November each year.
13. It is recommended to change this practice whereby the MoF projects exchange rate as part of its budgetary process which is realistic. Externalization of debt service payments made by the CBA should be based on market prevailing rates. For this purpose, the MoF would be required to make some provision for exchange rate changes beyond their projected rates in case its deviates from the actual rates. This would be a more transparent process and make the debt service projections more credible and support better planning for debt management purpose.
14. Operational Risk Management
15. A key operational risk that exists in the PDMD is the existing practice of the back office in PDMD making debt service payments on domestic debt by the same official who is responsible for recording of the obligation and for effecting payment instructions. The lack of separation of such front and back office roles could be a potential for key operational risk related to frauds. As such, at the minimum, it is recommended to assign different personnel for these two distinct activities.
16. Maintaining all debt recording data within an excel spreadsheet is another potential source of operational risk with the possibility of human error or tampering, intended or otherwise. The use of the DMFAS system within PDMD has been stopped and the authorities have recently started the process of building external debt data in the DMFAS system. It would be essential to migrate all debt data records in the DMFAS system, with a phased approach whereby external debt data could be recorded in the first instance on a loan-by-loan basis. Subsequently, domestic debt data on an instrument basis (not bid basis) could be recorded in the DMFAS system by developing an electronic interface between the depository system and DMFAS system.
17. Other sources of operational risks relate to insufficient business continuity plan related to absence of remote back up of debt data and other records in an electronic format, ideally on a daily basis; keeping loan agreements and other important documents in a fire safe storage; alternative plan to deal with major IT failure or natural disaster that can disrupt debt management operations for a protracted period.
18. EUROBOND RELATED REDEMPTION CHALLENGES
19. **Issue.** The two past Eurobond issuances of the Republic of Armenia will pose important redemption challenges in September 2020 (with a bullet repayment of $500.1m, in addition to the annual coupon of about $30m [6%]) and in March 2025 (with a bullet repayment of $500m, in addition to the annual coupon of 35.8m [7.15%]):

* These are significant volumes in the context of Armenia’s current timeline for public debt repayment, and their foreign currency denomination adds to the country’s significant sovereign exposure to exchange-rate risk.
* The current account deficit is expected to widen by 0.8 percent of GDP (to $375m and $381m in 2018 and 2019 respectively) amid general weakness expected in foreign investment.
* Redemption of Eurobond in September 2020 of $500.1m comprises one-third of the net foreign currency assets in 2017[[25]](#footnote-25).
* There is a risk that the anticipated three quarter-point hikes in US interest rates in 2018 could be fast paced, leading to hardening of yields for emerging market bonds, reversal of international capital flows and exchange rate volatility.

1. **Fundamental Challenge.** This and other public debt management issues must be assessed in the context of Armenia’s public debt management strategy as a whole, i.e. with a holistic approach to the balance of risks that is imposed by the (i) country’s current public debt structure (currency denomination, level of concessionality, maturity profiles, etc.) and the (ii) trade-offs implied in the choices available for the way forward:

* Armenia’s public debt portfolio is currently highly exposed to exchange-rate risk, and concessional (and long-term) windows for sovereign borrowing in foreign currency are becoming less available to the country. Consequently, the Armenian sovereign Eurobonds are rated as "highly speculative," revealing the international bond market's concerns regarding fiscal policy and risks.[[26]](#footnote-26)
* As the high share of foreign currency debt is a growing source of vulnerability, charting a gradual reduction in this foreign currency exposure must be a guiding pillar of Armenia’s medium term debt strategy and actions. On the other hand, increasing reliance on domestic debt issuance and non-concessional financing might, progressively, put upwards pressure on interest payments,[[27]](#footnote-27) and increase refinancing risks through relatively shorter maturities (compared with what has been available till now) and the bullet structures of new Eurobond issuances.
* The two past Eurobond issuances listed in the Dublin Exchange might have aimed to establish a sovereign benchmark for Armenia in the international market. However, its benefit as a pricing benchmark for non-sovereign Armenian issuances has arguably been very limited. This experience and an assessment of such past policy direction should inform decisions going forward with regards to new Eurobond issuance plans.[[28]](#footnote-28)
* Local debt markets in AMD are still nascent (liquidity premiums are very high), and the term structure is still not underpinned by effective intertemporal arbitrage by market participants and CBA’s systemic liquidity management.[[29]](#footnote-29) Instead, the “yield curve” is very steep, a reflection, in several ways, of (i) the fragmented structure of local-currency Govt securities and (ii) currency depreciation expectations and views about the role of the exchange-rate in CBA’s policy rate decisions.

1. Thus, even though local debt markets in AMD are nascent, with the current cost implications highlighted above, the development of Govt debt and money markets must be an absolute financial policy priority at this stage. This is so, so that the liquidity and term premiums now faced in Govt AMD financing can be reduced going forward. In this context, solutions to address the two steep redemption challenges posed by past Eurobond issuances must fit within the guiding strategy for Armenia’s public debt management and macro-fiscal strategies going forward, and should have the following objectives:

* gradually reduce the exposure to exchange-rate risks and
* develop local debt markets in AMD to reduce liquidity premiums along the yield curve and strike a more optimal public debt time profile (balancing cost implications of the term premium against refinancing risks).

1. **Options.** As part of ADB’s ongoing TA support to the Public Debt Management Department (in the context of ADB’s Public Efficiency and Financial Markets Development Program), a set of choices can be worked further into Armenia’s public debt management strategy going forward.Assuming that no further benchmarking value is recognized in maintaining sovereign Eurobonds outstanding in international markets, the objective should be to gradually retire the maturing $1.1 billion of debt. For illustration purposes, one can imagine a broad variety of options:

a. A compact of dedicated program loans from IFIs,[[30]](#footnote-30) underpinned by a sustained objective of buying back outstanding Eurobonds from the market over a x-year period, thus replacing short-term bullet debt structures (which impose stark and rigid redemption challenges) with long-term, foreign currency, highly concessional debt;[[31]](#footnote-31)

b. A compact of dedicated program loans from IFIs (see footnote 32), underpinned by a sustained objective of refinancing loans which will amortize over the next eight years, thus replacing short-term debt structures with long-term foreign currency, with no impact on the composition of concessional debt;[[32]](#footnote-32)

c. A compact of dedicated program loans from IFIs (see footnote 32), underpinned by a sustained objective of bolstering the foreign exchange reserves of the country that would help to reduce currency pressure and drive down the local interest rates. This could pave the way for the government to issue greater amount of domestic debt in AMD and refinance external loans maturing over the medium term by purchasing foreign currency from the market. Although the composition of the foreign currency debt may remain unchanged initially, this will open up opportunities to deepen the domestic debt market at lower cost;

d. A compact of dedicated program loans from IFIs (see footnote 32), underpinned by a sustained objective of increasing foreign investment in the country through targeted disinvestment of state owned enterprises. This would impart smore stability to the external sector while also reducing public sector expenditure thereby making the macroeconomy more resilient. The proceeds from the disinvestment could be utilized to buyback Eurobonds thereby replacing commercial foreign currency debt with concessional foreign currency debt while creating a conducive environment for tapping the domestic debt market in the medium-term;[[33]](#footnote-33)

e. Currently, residents hold $155m of Eurobonds. A targeted market led debt swap program for residents to replace the foreign currency Eurobonds with domestic bonds denominated in AMD could reduce foreign currency exposure at a higher nominal interest cost due to premiums related to expectation of currency depreciation and liquidity issues;

f. An issuance program of international bonds denominated in AMD with partial credit guarantee from IFIs to enable FX proceeds from non-residents (sourced directly at auction or indirectly via the central bank) to be used to buyback outstanding Eurobonds from the market over a x-year period. Trade-off: it replaces exchange-rate risk with a higher cost of DRAM finance (as non-residents will likely demand a higher currency-depreciation premium);[[34]](#footnote-34)

g. As past, highly-concessional foreign currency debt to IFIs matures, issuing DRAM-denominated debt in local markets to buy the necessary FX could be an option. This can already be charted at the moment.[[35]](#footnote-35)

h. A compact of IFI-provided, concessionally-priced, partial credit guarantees to support the mobilization of foreign-currency commercial loans of longer tenure (and, most importantly, uniform amortization structures), timed to coincide with the retirement of the outstanding 2020 Eurobond and to buy-back (early) the 2025 Eurobond. The change in amortization structure would do away with bullet-type of redemption challenges, and pricing-wise, direct commercial loans would be advantageous viz-a-viz the pricing of an IFI-guaranteed Eurobond re-issuance.

1. **Possible Strategy Going Forward.** As the discussion above highlights, a wide variety of options can be conceptualized in this regard. One key take-away from the present analysis is that planning should start immediately. The other key take-away, which the following analysis aims to underline, is that some options are vastly superior to others.
2. As part of a strategy to deal with the Eurobond redemption, 6 options are explored below as illustration of what is possible, as an effort to support key policy decisions by the Government of Armenia. A detailed cost benefit analysis of the various options is also indicated below (i.e. summarized), in terms of the portfolio impact on debt exposure and other macroeconomic implications of such options. The following set of assumptions are made for the analysis:

**Interest Rate**

1. 6 month LIBOR rate increases by 75 basis points by 2018

2. 10-year sovereign bond yield for Armenia increases by 200 basis points by 2019

3. Partial Credit Guarantee (40 %) on new Eurobond reduces yield by 150 basis points

4. Domestic 10-year yield on government bonds declines by 200 basis points by 2022

**Exchange Rate**

5. Annual average depreciation of Armenian Dram by 5 percent against US Dollar during 2018-2029

1. **The Options for Redemption.** The first three options depicted below (Table 11) relate to early buyback of both Eurobonds for US$ 1 b. These three options relate to different refinancing options through a 10-year policy loan from IFIs; local currency (AMD) bond issuance of 10-year domestically; and through a new issuance of a 10 year Eurobond. The latter three options relate to refinancing of the 2020 Eurobond of $500 with its redemption at maturity. This include refinancing through new Eurobond issuance or contraction of loan from international investment back, both of which have partial credit guarantee from IFIs; and through issuance of AMD bonds of 10-year. For options with refinancing through issuance of AMD bonds, the foreign exchange is assumed to be purchased from the local forex market through such bond proceeds.

**Table 11: Options for Eurobond Redemption**

|  |  |  |
| --- | --- | --- |
|  | **Form of Redemption** | **New Debt Financing** |
| 1 | **Buyback** of Eurobonds of $1000.1 m in 2018 | 10 year policy loan for US$ 1 b from IFIs |
| 2 | **Buyback** of Eurobonds of $200 m annually during 2018-2022 | AMD 10-year bonds issued annually equivalent to US$ 200 m during 2018-22 |
| 3 | **Buyback** of Eurobonds of $1000.1 m during 2018-2025 | IFI 10 year policy loan ($ 200 m) and AMD 10-year bonds ($ 800.1 m) issued during 2018-25 |
| 4 | Eurobond 2020 of $500.1 m redeemed at original maturity **(refinance)** | Eurobond $ 500.1 m issued in 2020 with partial guarantee from IFIs |
| 5 | Eurobond 2020 of $500.1 m redeemed at original maturity **(refinance)** | Investment Bank Loan of $ 500.1 m with partial guarantee from IFIs |
| 6 | Eurobond 2020 of $500.1 m redeemed at original maturity **(refinance)** | AMD bond issuance of $ 500.1 m during 2018-20 |

1. **Transformation of Redemption Profile for various options.** The impact of the various refinancing options on the redemption profile of new debt created is shown in Figure 1 and 2. Figure 9 compares the outstanding redemption of the two Eurobonds with the new redemption profile created through buyback operations of $1 b. For the buyback operations, the combination of IFI loans and AMD Bond issuance creates a very smooth redemption profile followed by buybacks through AMD bond issuance exclusively. Figure 10 compares the outstanding redemption profile of the 2020 Eurobond with new debt of $500 m created through redeeming the Eurobond obligation at maturity. For the buyback operations, the combination of IFI loans and AMD Bond issuance creates a very smooth redemption profile followed by buybacks through AMD bond issuance exclusively. The loan from Investment bank bears out a smoother redemption profile followed by issuance of AMD bonds.

**Figure 9: Impact on Redemption Profile for Buybacks**

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| --- | --- |
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**Figure 10: Impact on Redemption Profile for Redemption at Maturity**

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**Table 12: Impact Analysis of Various Options**



1. **Impact Analysis of Various Options.** To understand the overall impact of the various refinancing options on some key metrics relating to currency and refinancing risk on public debt, exchange rate stability, domestic market development, and overall cost savings, Table 12 above provides a heat map of the various metrics. To analyze the impact on exchange rate, it is assumed that any transaction which result in a net annual outflow of $150 m could lead to pressure on the exchange rate with greater volatility[[36]](#footnote-36). The trade-off between various risk exposures, macroeconomic stability and market development objectives suggest that there is no unique option which suits all the metrics.
2. In addition to the impact analysis depicted, it is also imperative to consider the impact on the debt level in the context of the new fiscal rule, whereby the Government will aim to limits its overall debt below 50 percent of GDP. Options relating to buyback of the Eurobonds could imply higher debt levels than other options given the gradual buyback of the Eurobonds with a frontloaded refinancing operation.
3. Finally, the feasibility of each option also needs to be considered. For instance, issuance of local currency AMD bonds domestically will depend on the absorptive capacity of the financial market. With an excess liquidity of AMD 50 bn at the end of March 2018, it is expected to further widen to AMD 100 bn spurred by government expenditures and foreign capital inflows. Much of the excess liquidity is a structural liquidity overhang. This implies that the upper threshold for the market to absorb bond issuances could be around $200 mn in 2018. The volume of such issuance could be sustained in the future years through injection of more liquidity in the system through repos by CBA which could also deepen the repo market with a more active inter-bank market.[[37]](#footnote-37) Based on the current excess liquidity, market perceives to absorb at least AMD 30 billion additional issuance.
4. On the price impact of additional AMD bond issuance, given the current benign inflation environment in Armenia, additional issuance of around AMD 50 bn ($100 mn) is expected to be neutral with respect to yield movements. Stable inflation rates supported by higher foreign capital flows and more accommodative monetary policy could lead to compression in term premium on medium and long term government bonds. However, given the market appetite is currently gravitated towards medium-term bonds up to 10 year tenor, significant issuance of 30 year bonds could drive up the yields.
5. At another level, policy makers would also need to strategize whether to buyback all Eurobond exposure or limit it to the 2020 Eurobond only. Given the current benchmarking served by the 2025 Eurobond and also in view of the scale of refinancing required, targeting the redemption of 2020 Eurobond at this stage would appear to be a better feasible strategy. Moreover, given that the 2020 Eurobond would be taken out of the benchmark indices by September 2019 with its remaining maturity narrowing to less than one year, buybacks could result in additional cost savings as investors would like to switch to new bonds which are included in the global indices.
6. **Summing-Up.** From the above analysis, it is clear that redemption of the Eurobond of $500 m needs a careful consideration of various options given its implications on sovereign risk, macroeconomic stability, market development and cost considerations now. Balancing of such cross-cutting policy considerations will be crucial to anchor it within the overall macroeconomic policy setting, Government’s medium-term debt management strategy and financial market development objectives.
7. A combination of refinancing through loans from IFIs ($200 mn) during 2018-19 and AMD bond issuance in the domestic market (ranging annually around $100 mn) spread between key benchmark issuance of 1 year, 3 year, 5 year and 10 year appears to be a more balanced approach in redeeming the Eurobonds. This approach has the following advantages:

* reduces foreign currency risk,
* eliminates refinancing risk, through a smooth redemption profile,
* maintains exchange rate stability,
* eases liquidity management challenges of the central bank and
* spurs the development of a liquid local currency sovereign bond market, the only path towards the de-dollarisation of the economy (i.e. a necessary first step, but, of course, not a sufficient condition).

1. The design of such a strategy should be well coordinated (i.e. operationally only, so not to impinge on central bank independence concerns) between the PDMD and the CBA, reflected in the Government’s MTDS for 2019-21, and clearly articulated to the financial market participants supplemented with an issuance plan. The buyback of Eurobond in gradual manner should also be charted along with such strategy.
2. Adding contingency lines to a well communicated strategy could be a very important factor for success, especially if the implementation process can be affected by episodes of exchange-rate instability that could reduce how much can be achieved by the AMD debt issuance pillar of the overall effort. These contingency lines could rely on e.g. IFI’s PCG facilities, even when untapped.
3. APPROACH TO TA AND IMPLEMENTATION
4. Based on the findings of the Inception Mission, the TA’s objective and purpose of Strengthening Public Debt Management is confirmed. The Public Debt Management Department (PDMD), Ministry of Finance is the lead entity in relation to this TA-9332 ARM and the Public Debt Management Expert is to support: (i) improvement of the debt management strategy framework; (ii) propose reforms to the issuance strategy to support development of money and local currency debt market; (iii) analyze the possibility of accelerated issuance of domestic bonds to replace external debt; and (iv) strengthen the operational risk management framework and business continuity plan for PDMD. Given these set of roles and responsibilities as well as deliverables under the TOR the suggested approach is as follows:

* Undertake three missions during 2018: 5-23 March 2018, 7-18 May 2018, and end June 2018.
* Design and support a comprehensive macro-financial analysis undertaken by the PDMD in collaboration with the Central Bank of Armenia and NASDAQ OMX on the possibility of acceleration of domestic debt issuance which replaces external debt. The work will also be closely coordinated with the Debt Market Expert associated with this TA project and seek to benefit from extensive consultations with various investor class. An outline of the analytical study will be prepared as a starting point with specific allocations for various agencies and experts; (5-23 March 2018),
* Provide ongoing support and capacity building for PDMD staff relating to domestic government securities issuance strategy and management. Provide informal working sessions with PDMD staff on debt issuance, government securities market and money market development. Provide advice on the formulation of an annual borrowing plan and the development of an issuance calendar. (5-23 March 2018),
* Prepare an internal policy framework for the PDMD to conduct buyback and switch operations to manage the potential refinancing, liquidity, and interest rate risks associated with the domestic debt redemption profile and rollover of maturing bullet benchmark government securities. Provide a prototype for switch operations based on which a software for switch auctions will be developed at the NASDAQ OMX. (7-18 May 2018);
* Improve the analysis and output for the medium-term debt management strategy framework to be formulated for 2019-21 by the PDMD. This will require close work with the PDMD. (7-18 May 2018);
* Provide assistance and guidance to the PDMD staff on its preparation of an Operational Risk Management guide. (end June 2018); and
* Make recommendations to improve government cash flow forecasting and cash management by the PDMD. (end-June 2018).

1. OUTPUTS
2. The TOR of TA-9332 ARM project requires consultancy deliverables of an inception report, draft reports on each deliverable, and a final report.
3. This inception report is the first deliverable under contract.
4. STAKEHOLDER CONSULTATIONS AND DOCUMENTS RECEIVED

Table 13: List of Stakeholder Consultations

| **Date** | **Institution** | **Officials Present** |
| --- | --- | --- |
| 10-12-17 | ADB Resident Office | * Joao Farinha-Fernandes – Senior Financial Sector Economist; * Grigor Gyurjyan - Economist * Vahe Hovhannisyan – National Coordinator. |
| 11-12-17  &  22-12-17 | PDMD, MoF | * Arshaluys Margaryan – Head. |
| 11-12-17  to  22-12-17 | PDMD, MoF | * Samvel Khanvelyan – Deputy Head; * Artur Hambardzumyan – Head of Strategy and Risk Management Division; * Artak Marutyan – Deputy Head. |
| 18-12-17 | DMOSB, MoF | * Arayikyesayan – Head * Vahe Hovhannisyan – National Coordinator |
| 21-12-17 | ICD, MoF | * Argam Aramyan – Head. |
| 22-12-17 | ADB Resident Office | * Vahe Hovhannisyan – National Coordinator. |

Table 14: List of Documents Received

| **Institution** | **Documents Received** |
| --- | --- |
| PDMD | * Medium-term Debt Management Strategy, various issues; * Annual Report on Public Debt Management, various issues; * State Budget Message on Public Debt Management, various issues; * Debt Bulletin, various issues; * Government of the Republic of Armenia Decree, 13 April 2017; * Monthly Issuance, various issues downloaded from website; * Issuance Auction Calendar, 2018 * List of Benchmark Bonds, various issues downloaded from website; * Government Treasury Securities Auction Results, various issues downloaded from website; * Monthly Report of Government Treasury Securities, various issues downloaded from website; * External Loans, Terms and Conditions, 31-12-2016; * Procedure for the Processing of External Loans / Credits Disbursements, 06-01-2017; * Procedure for RA Government External Debt Service, August 29, 2017; * Procedure for Recording and Servicing State Treasury Securities, August 29, 2017; * Basic Principles of Issue and Repurchase of Government Treasury Bonds and Calendar of Auctioned Auctions in 2018, December 2017: * State Debt Law, May 26, 2008; * Decisions on State Treasury Bonds, April 13, 2017. |
| Ministry of Finance | * State Budget of the Republic of Armenia, 2018, December 2017. |
| CBA | * Inflation Report, November 24, 2017; * Financial Stability Report 2016, 2017; * Yield Curve, downloaded from website. |
| NASDAQ-OMX | * Data on Trading on Government Securities downloaded from its website. |
| IMF | * Armenia: Technical Assistance Report – Upgrading Fiscal Rules, October 2017; * Article IV Consultation Report, July 2017. |
| European Commission | * Description, Assessment and Reforms on Three Components of the Programme, October 2016; |
| The World Bank | * Debt Management Performance Assessment for Armenia, November 2013 |
| PEFA Secretariat | * Republic of Armenia, Public Expenditure and Financial Accountability (PEFA) Assessment, 2013, May 2014 |

APPENDIX 1: CONTRACT TERMS OF REFERENCE

|  |  |
| --- | --- |
| Contract | 136532-S95918 |
| Project | TA-9332 ARM: Support to Public Efficiency and Financial Markets Program – (51060-001) |
| Expertise | Public Debt Management Expert |
| Source | International |
| **Objective and Purpose of the Assignment:**  The specialist will work closely with MOF’s public debt management department to improve operations and make practices and strategies more effective and market-development friendly. This will require close interaction with other departments in MOF and other ADB specialists supporting money and financial market markets reforms.  **Scope of Work:**  The expert’s inputs are expected to contribute to the implementation of the ARM: Public Efficiency and Financial Markets Program.  **Detailed Tasks:**  The Public Debt Management Expert will undertake an initial 2-week mission to complete the following tasks:   1. Assess and make recommendations to support the public debt management   department (PDMD) in improving its operations and risk management (e.g. through a new Operational Risk Management Framework [ORMF]), with a focus on:   1. developing analytical capacities for the back and middle offices and the Medium   Term Debt Strategy (MTDS) process (e.g. guidelines for contracting and negotiating external loans, and for evaluating the cost-effectiveness of alternative forms of external borrowing and guarantees [i.e. cost-at-risk analysis]),   1. documenting procedures for debt management activities (e.g. Business Continuity Plan, ORMF processes, clear guidelines for bond buyback and switch operations, etc.), and 2. recommending legislative and regulatory changes to improve debt management operations, including options to centralize analysis, and reporting of all existing government debt within PDMD. 3. Propose reforms in debt management practices to streamline issuance of securities to also support money market development, as an input to the road-map for the medium-term development of capital and financial markets in Armenia), 4. Produce an analysis, within the fiscal targets of the MTDS, of the implications (e.g. exchange-rate, etc.) of a faster repayment of foreign-currency debt financed through higher levels of domestic currency debt issuance, 5. Make recommendations, to improve MOF’s cash management (integrated with the use of T-bills, buybacks, and other instruments) | |

1. The high growth rate in 2017 is driven by double digit growth rates in industry, services, and trade and also reflected the base effect on the back of stagnating growth in 2016. The state budget project a real GDP growth rate of 4.5 percent in 2018. [↑](#footnote-ref-1)
2. The decline in remittance flows impacted private consumption and the housing market. [↑](#footnote-ref-2)
3. World Bank Income Classification June 2017 $ 1,005.00 to $3,995.00 [↑](#footnote-ref-3)
4. Armenia’s public debt includes external debt of the Central Bank of Armenia (CBA), in addition to Government debt. Following the global financial crisis, public debt has steadily swelled from 14 percent of GDP in 2007. [↑](#footnote-ref-4)
5. However, this risk is mitigated by the fact that over 90 percent of the debt is long-term, mostly provided by official creditors, and at fixed interest rates (see table). [↑](#footnote-ref-5)
6. Based on debt sustainability analysis by the IMF (Article IV Consultation Report for Armenia, IMF, July 2017) which assumes one standard deviation shock of real GDP growth. [↑](#footnote-ref-6)
7. According to this rule, the fiscal deficit next year should be no more than 3 percent of the average GDP of the previous three years. The law also contained an absolute debt ceiling of 60 percent of GDP for the previous year. [↑](#footnote-ref-7)
8. A depreciation of 1 percent of AMD against major foreign currencies results in an increased debt burden of 0.4 percent of GDP. [↑](#footnote-ref-8)
9. The spread on Armenian sovereign bonds at 262 basis points over US Treasuries on 3 November 2017 was the highest within the region for CIS countries. [↑](#footnote-ref-9)
10. Eurobonds account for 68 percent of total redemptions in 2020 and 2025. [↑](#footnote-ref-10)
11. An increase of foreign and domestic interest rates by 100 basis points results in increased interest payments of 0.3-0.4 and 0.1-0.2 percent of state revenue (excluding grants) respectively. [↑](#footnote-ref-11)
12. The MTDS Framework developed by the IMF-World Bank is based on a deterministic scenario analysis which assess cost-risk trade-off for alternative strategies. [↑](#footnote-ref-12)
13. The aggressive domestic debt issuance strategy assumes financing between 54 – 32 percent of net borrowings during 2018-20 compared to the existing strategy of financing in the range of .20 – 30 percent during the same period [↑](#footnote-ref-13)
14. The performance of such strategy could change with more robust projections of exchange rates and interest rates which currently underestimates exchange rate and foreign interest rate risks as explained above. [↑](#footnote-ref-14)
15. This simplistic analysis does not include the feedback effect of additional exchange rate depreciation on other macroeconomic variables like GDP and interest rates as also for greater annual financing requirement (in domestic currency terms) on foreign currency debt service obligations during the horizon of analysis. [↑](#footnote-ref-15)
16. There is only one other Eurobond issuance being traded and priced in the Dublin Exchange: $100m debt issued by Ardshininvestbk, with a coupon rate of 12%. [↑](#footnote-ref-16)
17. Medium-term notes are reopened for a period of one year; 10-year bonds are reopened for 2 years; and 30-year bonds for 4 years. The calendar is fixed, and the amounts vary in a narrow band. [↑](#footnote-ref-17)
18. Policy ceilings on benchmark bonds are fixed through a Ministerial Order. [↑](#footnote-ref-18)
19. For example, a 5-year benchmark bond initially can attain the status of a 3-year benchmark bond after 2 years of time wherein it can benefit from increasing stock through re-opening over at least 2 years. [↑](#footnote-ref-19)
20. Credit organisations which predominantly engage in lending activities account for 8.7 percent of total assets of the financial system. [↑](#footnote-ref-20)
21. The counterparts must report OTC transactions to CBA and CBA reports them daily on an anonymous individual basis to the Ministry of Finance and to the market. However, the information is available in Armenian only, which could be an issue for foreign investors. [↑](#footnote-ref-21)
22. Buy back operations are also undertaken with the CBA at a pre-determined price based on the latter’s monetary policy operation requirements. [↑](#footnote-ref-22)
23. Buy back of of benchmark bonds are undertaken 6 months prior to its maturity such that the volume outstanding in any issue is less than AMD12.0 billion. [↑](#footnote-ref-23)
24. On a monthly basis, estimates tend to be within 8% of the actuals for the month and the average for the year is within 3%. [↑](#footnote-ref-24)
25. The net foreign currency assets of $1,550m at the end of December 2017 is estimated after deducting any pre-determined short-term net drains on foreign currency assets. The redemption challenge on Eurobond is further aggravated by rising amortisation of external loans which is set to increase from $101m in 2017 to $233m in 2020. [↑](#footnote-ref-25)
26. The spread on Armenian sovereign bonds at 262 basis points over US Treasuries on 3 November 2017 was the highest within the region for CIS countries. [↑](#footnote-ref-26)
27. Depending on the evolution of exchange-rates. [↑](#footnote-ref-27)
28. There is only one other Eurobond issuance being traded and priced in the Dublin Exchange: $100m debt issued by Ardshininvestbk, with a coupon rate of 12%. [↑](#footnote-ref-28)
29. There’s a lack of liquid financial instruments for banks’ liquidity management, and banks’ level of precautionary reserves in AMD reveals a lack of confidence in the permanence of CBA’s systemic liquidity management into the future, which is not as active as it could be presently. CBA’s interest rate targeting objectives are still not transparent, CBA’s inflation targeting statement is still not reflected in its policy rate decisions – e.g. market participants can’t estimate a transparent reaction function for CBA’s policy rate decisions – and this holds back the development of the interest rate transmission mechanism (i.e. a liquid yield curve and the deepening of financial intermediation in AMD). [↑](#footnote-ref-29)
30. It is important to clarify that program lending by IFIs is generally justified on the strength of the associated policy reforms. The non-earmarked budget financing that is a by-product of program lending is either presented against adjustment cost of reforms or a government’s net financing needs. In other words, while the text of this report is making a liberal interpretation of the funding of program loans as part of the effort to refinance the Eurobonds, it is not clear that IFIs’ program loans can be explicit in that objective when these proposals are presented to the respective Boards. [↑](#footnote-ref-30)
31. A dedicated program for buying back (well before redemption period) Eurobonds which stretches out to 2025. [↑](#footnote-ref-31)
32. The objective would be to refinance the maturing debt over the next five years which covers external loans as well as the first Eurobond stretching out till 2022. [↑](#footnote-ref-32)
33. There seem to be few SOEs left after the disinvestment program undertaken during late 1990s and early 2000s. The remaining SOEs which operate now as state-owned closed joint stock companies are still active in the energy sector which are loss making requiring government subsidies. Energy prices are also very high in Armenia. So, the option for disinvestment is limited to the electricity companies. Another option could be that IFIs support foreign investment through PPPs wherein the expenditure saved by the Government could be utilized to buyback Eurobonds. [↑](#footnote-ref-33)
34. Offshoring of local currency bonds is an option, but possibly not feasible at the current juncture with a nascent and illiquid local currency debt market. [↑](#footnote-ref-34)
35. This should be a gradual strategy which can be accelerated when the outlook for external sector balance improves with rising exports, remittances and foreign investment. [↑](#footnote-ref-35)
36. Although it is difficult to quantify the net BOP position over 2020, the threshold level of $150 m annual foreign exchange purchase from the local forex market is based on the CBA’s net forex purchase of $100 m in 2017 which is expected to be in higher volume in 2018 predicated by the stable BOP position expected during 2018. Based on the daily turnover of $13 m in the forex market, an annual amount of $150 m forex purchase would constitute one-fifth of the annual turnover. [↑](#footnote-ref-36)
37. Although future changes in the framework of reserve requirement by making separate reserve requirement ratios based on local and foreign currency liabilities could inject more liquidity to the system, it could also block more foreign currency resources in the system and could impact availability of forex in the local market. This could constrain the volume of forex purchase through AMD bond issuance in the domestic market. [↑](#footnote-ref-37)