INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL MONETARY FUND

ISLAMIC REPUBLIC OF AFGHNISTAN

Joint World Bank-IMF Debt Sustainability Analysis

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Prepared jointly by the staffs of the International Development Association (IDA)

and the International Monetary Fund (IMF)

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Afghanistan: Joint Bank-Fund Debt Sustainability Analysis	
Risk of External Debt Distress	High
Overall Risk of Debt Distress	High
Granularity in the Risk Rating	Sustainable
Application of Judgment	Yes: The projection period informing mechanical risk signals is extended to 20 years.

This debt sustainability analysis (DSA) concludes that Afghanistan's external and overall risk of debt distress continues to be assessed as high.[1] Afghanistan's debt sustainability hinges on continued donor grants inflows (currently around 40 percent of GDP) against substantial fiscal and external deficits and downside risks to the economic outlook. A gradual replacement of grants by debt financing leads to high risk of debt distress in the long run and is captured by mechanical risk ratings based on an extended 20-year period rather than the standard 10-year period. Significant downside risks include the fragile security situation, political uncertainty, domestic revenue shortfalls, weather related risks, and regional economic instability. The authorities should continue their efforts to mobilize revenue and implement reforms, while donors should continue to provide financing in the form of grants. Debt management capacity, including the monitoring of contingent liabilities emanating from state-owned entities and public-private partnerships (PPPs), should be strengthened.

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[1] This DSA was jointly prepared by IMF and World Bank staff under the new debt sustainability framework (DSF) for low-income countries (LICs), implemented since July 2018. The debt-carrying capacity is classified using the country-specific composite indicator (CI) composed of three macroeconomic indicators and the World Bank's Country Policy and Institutional Assessment (CPIA). Afghanistan's capacity is assessed as "weak" using the CI based on the October 2018 WEO and the 2017 CPIA.

BACKGROUND

Public Debt Coverage

1. **The external DSA focuses on the central government's debt and Da Afghanistan Bank's (DAB, the central bank) debt owed to the IMF**.[2] The authorities have directly contracted external loans for financing macro-critical infrastructure projects, but the central government has not issued guarantees for other public entities' external borrowing, including by state /local governments and state-owned enterprises. State and local governments do not borrow on their own. External and domestic debt is classified based on its currency denomination.[3]

Subsectors of the public sector	Sub-sectors covered
1 Central government	X
2 State and local government	
3 Other elements in the general government	
4 o/w: Social security fund	
5 o/w: Extra budgetary funds (EBFs)	
6 Guarantees (to other entities in the public and private sector, including to SOEs)	
7 Central bank (borrowed on behalf of the government)	X
8 Non-guaranteed SOE debt	

2. **The government owes a small domestic debt to DAB of ¾ percent of GDP as of end-June 2018**. This debt is due to the lender-of-last-resort exposure incurred by DAB during the resolution of Kabul Bank and is to be repaid by end-2019. The potential government exposure to the state-owned entities has not been systematically quantified and the government is working on collecting the necessary data.[4] The authorities have been considering issuing sukuk, and the legal and operational framework is under preparation with the help of the Islamic Development Bank (IsDB).

3. **The capacity to record and monitor public debt and contingent liabilities needs to be strengthened**.[5] The government's intention to accelerate infrastructure projects, including through PPPs, will likely lead to more sovereign involvement, particularly in the power generation sector. So far, the government approved four PPPs with total project cost of about US$0.3 billion. The contingent liabilities due to the approved projects have not been quantified in the 2018 budget. An improvement of debt management including monitoring of contingent liabilities requires technical assistance (TA) from international partners. Some TA has been provided by the World Bank assisting with the development of a Medium-Term Debt Strategy (MTDS) for 2017–19. The World Bank is also assisting with an assessment of SOEs' financial position. The magnitude of a shock used for the contingent liability stress test reflects the coverage of public debt and other vulnerabilities in the public sector.

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[2] The separation is required to account for the government's debt owed to the central bank.

[3] Since there is no domestic debt market in Afghanistan this classification overlaps with the residency-based classification.

[4] There are 36 state-owned enterprises (SOEs) and 16 state-owned corporations (SOCs).

[5] The latest IMF assessment of public debt recording and monitoring capacity, made in consultation with the World Bank (November 2016), pointed to the need to build up capacity in this area.
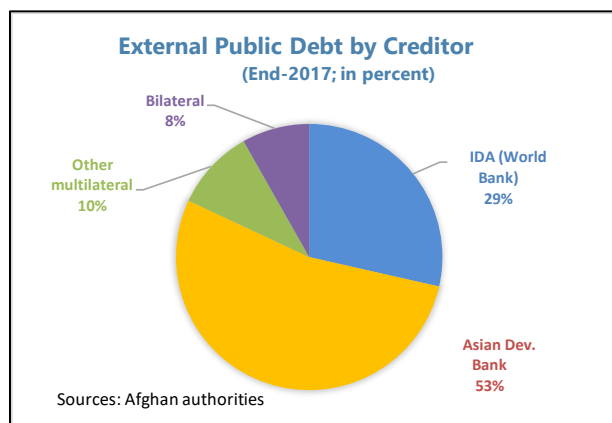
Coverage of Public Debt and the Magnitude of Contingent Liability Shock

		Used for the	
1 The country's coverage of public debt	The central government plus social security, central bank, government-guaranteed debt		
	Default	analysis	Reasons for deviations from the default settings
2 Other elements of the general government not captured in 1.	0 percent of GDP	0.0	
3 SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	2.0	
4 PPP	35 percent of PPP stock	0.0	
5 Financial market (the default value of 5 percent of GDP is the minimum value)	5 percent of GDP	5.0	
Total (2+3+4+5) (in percent of GDP)		7.0	

1/ The default shock of 2% of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

Background on Debt

4.   **Afghanistan has relied mainly on grant financing and highly concessional external borrowing to finance its development needs**. As of end-2017, Afghanistan's total public external debt stood at US$1,168 million or 5.9 percent of GDP. The low level of debt reflects past debt relief under the Enhanced HIPC Initiative, and limited borrowing since then. The borrowing comes mostly from multilateral and bilateral lenders on highly concessional terms. Main multilateral creditors are the Asian Development Bank (ADB), the International Development Agency (IDA), the International Monetary Fund (IMF), and the IsDB. Among bilateral creditors, the Saudi Fund was the main creditor (5 percent of total debt outstanding) followed by the Kuwait Fund (2 percent).

External Public Debt by Creditor
(End-2017; in percent)

Bilateral 8%
Other multilateral 10%
IDA (World Bank) 29%
Asian Dev. Bank 53%

Sources: Afghan authorities

5.   **Exchange rate stabilization is important as the public debt is mostly denominated in foreign currencies**. Given Afghanistan's high level of dependence on grants and limited capacity to procure foreign exchange (outside grants), depreciation would increase the debt service burden substantially. However, that risk is somewhat mitigated by the low level of public debt, the long average loan maturity (14 years), and the evenly spread redemptions going forward. The annual interest payments are very low at 0.1 percent of GDP, and no external loans carry variable interest rates. Further, foreign reserves are high at US$8.1 billion, fully covering external debt service coming due over the next decade.

6.   **The authorities remain committed to contracting external loans on highly concessional terms**. Under the ECF, concessional loans are those with a grant element

of 60 percent or higher. From the beginning of 2018, the government has contracted around US$16 million external loan. It considers taking on concessional loans equivalent to some US$250 million in a few years. These loans are used to finance key infrastructure and social sector projects.

UNDERLYING ASSUMPTIONS AND COUNTRY CLASSIFICATION

Background on Macro Forecasts

7. **The updated long-term macroeconomic framework assumes a slightly lower short-to medium-term growth trajectory compared to the November 2017 DSA** reflecting increased risks owing to the economy's performance, and adverse security, political, and regional conditions (see Box below).

Macroeconomic Assumptions Comparison Table

	DSA November 2017		Current DSA	
	2017-22	2023-37	2018-23	2024-38
Real GDP (%)	3.9	6.0	3.7	6.0
Inflation (GDP, deflator, %)	6.0	4.5	4.5	4.9
Nominal GDP (Billions of Afghanis)	25.0	57.1	21.8	49.6
Revenue and grants (% of GDP)	27.5	26.4	27.8	25.9
Grants (% GDP)	15.6	10.2	14.9	9.0
Primary expenditure (% GDP)	27.4	26.7	27.9	27.1
Primary deficit (% GDP)	-0.1	0.4	0.1	1.2
Exports of G&S (% change)	18.5	9.0	8.6	6.9
Noninterest current account deficit (% GDP)	-1.8	7.7	0.3	9.5

Sources: Afghan authorities and IMF staff estimates and projections

8. **The realism tools show that projections are in line with historical and peers' experiences**.

- **Forecast errors**. In the past, given low levels of public debt, changes in both PPG external debt and public debt were small with small negative forecast errors. At the same time factors contributing to historical debt dynamics varied widely, with a current account surplus acting to restrain external debt/GDP, and primary deficit driving total public debt. Going forward, both PPG external debt and public debt are expected to stay low in the medium term, and real GDP growth will continue to contribute as a debt reducing factor (Figure 3).

Box 1. Baseline Macroeconomic Assumptions

- Staff projects medium-term growth lower than the 2017 DSA, owing to downward revisions in 2018–19 reflecting short- and medium-term political/security concerns, regional uncertainties, and the ongoing drought. The growth potential of 6 percent is projected to be reached from 2025 onwards.[1]

- Over time, stronger growth and job creation are assumed to be supported by agricultural development, public investment in education and health, and regional trade integration. In addition, the extractive industry could deliver positive impacts on the economy, though these are currently not incorporated in economic growth or exports projections due to uncertainty over the timing of material production.

- That said, if security conditions worsen, aid falls short, or reforms stall, growth would be lower with attendant effects on unemployment and poverty. Conversely, lasting peace with insurgents would boost private sector confidence and facilitate a shift in public spending from security to development, leading to higher and more inclusive growth.

- In line with the new guidance on grants,[2] the baseline scenario assumes a gradual decline in donor aid beyond the period over which the international community has firmly pledged its financial assistance. Along with higher GDP growth, the grants-to-GDP ratio is assumed to decline by around 1 ppt of GDP per year. The remaining financing needs are assumed to be financed mainly by external concessional loans but with a grant element of around 35 percent.[3]

- Export growth is lower in the revised long-term scenario, reflecting the on-going drought and uncertainty over the regional economies. The authorities should continue to diversify export destinations and complete the ongoing regional infrastructure / trade projects that may increase exports in the long run. The long-term agenda aiming at diversifying the economy as well as progress with regional integration should result in attracting FDIs into tradable sectors. Growing FDI (mining, services, transport infrastructure, banking, communication, distribution) will contribute to covering the widening current account deficit stemming from declining grants.

- The terms for new external borrowing are assumed to be concessional. This DSA assumes that the authorities issue a three-year sukuk in the middle of the 2020s with an interest rate of 7 percent.

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[1] The potential growth rate assumption is based on growth accounting analysis by the World Bank.
[2] See ¶37 of "Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries."
[3] Typically, the 35 percent grant element is used by the IMF to define a loan as concessional.

- **Fiscal adjustment**. The size of projected fiscal adjustment is moderate at 0.2 ppt of GDP for the first year of projections. Growth projections are roughly in line with the growth path

suggested by a fiscal multiplier of 0.4 (LICs' average), while the projection for 2018 is more conservative reflecting political/security concerns and ongoing drought (Figure 4).

- **Investment-growth.**[6] The contribution of government capital stock to growth is similar to that observed in the previous DSA. Staff is of the view that relatively high levels of its contribution will gradually come down as infrastructure gaps are closed and private-sector activities, including in the mining sector, would be more vitalized.

Country Classification and Determination of Scenario Stress Tests

9.   **Afghanistan is assessed to have a weak debt carrying capacity**. Based on the October 2018 WEO macroeconomic framework, and update to the World bank's CPIA measures to 2017 values, Afghanistan's composite indicator score[7] lies below the lower cut-off value of 2.69 to confirm the assessment of weak debt carrying capacity used in the November 2017 DSA. The thresholds for a weak performer are used below to assess the external debt risk rating. Given Afghanistan's economic characteristics, tailored stress tests (natural disasters, commodity prices, and market financing stress tests) are not applicable.

EXTERNAL DSA

10.   **The risk of external debt distress for Afghanistan is high**. Given the very high concessionality of external debt (with a long grace period) and the persistence of Afghanistan's economic and social challenges, 20-year projection period is used for mechanical risk rating. While external debt-to-GDP is projected to remain low in the medium-term, when grants are gradually replaced by loans, one of the debt sustainability indicators—the ratio of present value (PV) of debt to exports — breaches the threshold under the baseline .[8] On the other hand, liquidity indicators remain at low levels under the baseline provided the concessional loans continue in the long-run (Figure 1).

11.   **External debt sustainability is vulnerable to shocks to non-debt flows and exports**. The most extreme shocks are the exports shock for the ratio of PV of debt to exports and the ratio of debt service-to-exports, and the non-debt flow shock (FDI and transfers) for the ratio of PV of debt to GDP (Table 3). These results illustrate the importance of sustained donor support. At the same time, it is important that Afghanistan continues its efforts to diversify exports and mobilize domestic revenue.

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[6] Due to lack of government capital stock data, staffs applied the average share of government investment in total investment over the past 5 years (69 percent) to the historical total capital stock estimates prepared by the World Bank (78 percent of GDP as of end-2017).

[7] See footnote 1 for definition.

[8] See ¶87 of "Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries."

OVERALL RISK OF PUBLIC DEBT DISTRESS

12.   Total public debt remains low. Given the financing mix of large grants and highly concessional external loans, the PV of total public debt-to-GDP ratio is projected to stay below the benchmark with a wide margin both under the baseline and stress tests. The public DSA suggests that all three relevant debt indicators–PV-to-GDP ratio, PV-to-revenue ratio, and debt service-to-revenue ratio–are most vulnerable to the growth shock (Figure 2). Going forward, it is important to maintain primary surpluses and strengthen the capacity to manage debt and liquidity to assure prudent issuance of domestic sukuk while deepening the domestic debt market.

13.   Afghanistan's overall risk of public debt distress is assessed to be high. Though both PPG external debt and total public debt are projected to remain low and mechanical signals over the first 10-year period suggest moderate risk of debt distress, staff is of the view that Afghanistan's overall risk of debt distress should be "high" consistent with 20-year mechanical signals because its debt sustainability largely hinges on significant and continued donor support which is uncertain in the long term and significant social, economic, and the related risks and challenges will persist into the longer term.

CONCLUSIONS

14.   Afghanistan remains at a high risk of external/overall debt distress as debt sustainability hinges upon continued donor grant inflows. Sound macroeconomic management, including proper use of public resources, would be key to keeping international development partners on board. The authorities should strictly prioritize projects to be financed by external borrowing and seek as concessional terms as possible. While a continued favorable financing mix of grants and highly concessional loans would be critical for debt sustainability, the authorities should continue its efforts to gradually reduce its reliance on grants. It is important to reduce external vulnerabilities through diversifying exports and maintaining sufficient foreign reserves, as well as increasing revenue by broadening the tax base and further strengthening revenue collection. Also, debt management capacity, including the monitoring of contingent liabilities emanating from state-owned entities and PPPs, needs to be strengthened. Domestic borrowing through sukuk should be implemented cautiously after an adequate institutional framework and capacity is in place.

15.   The authorities concurred with the conclusions of the DSA. They would remain committed to ensuring debt sustainability by seeking grants and limited concessional borrowing to the maximum extent possible, while noting that country's large developmental needs. The authorities were cognizant of needs to record and monitor public debt and fiscal risks associated with PPPs, and build up sufficient institutional capacity to properly manage domestic debt through sukuk issuance. They would welcome targeted TAs in these areas. In the long-run, they agreed that they should gradually reduce reliance on grants by strengthening public resources management and resilience to external vulnerabilities.

Table 1. Islamic Republic of Afghanistan: External Debt Sustainability Framework, Baseline Scenario, 2015–38

(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2028	2038	Historical	Projections
External debt (nominal) 1/	6.8	6.1	5.9	6.7	6.9	6.9	6.9	6.9	6.9	14.4	17.2	8.9	8.7
of which: public and publicly guaranteed (PPG)	6.8	6.1	5.9	6.7	6.9	6.9	6.9	6.9	6.9	14.4	17.2	8.9	8.7
Change in external debt	0.5	-0.7	-0.2	0.8	0.2	0.0	0.0	0.0	0.0	1.4	-0.8		
Identified net debt-creating flows	-3.5	-7.6	-5.5	-5.9	0.4	-0.3	-0.3	1.5	2.4	4.4	4.0	-18.2	1.1
Non-interest current account deficit	-2.9	-7.3	-5.0	-5.3	1.1	0.4	0.4	2.2	3.1	8.0	11.6	-16.4	2.8
Deficit in balance of goods and services	35.9	32.6	34.5	36.1	37.8	36.9	35.2	34.3	32.4	26.1	18.3	29.5	32.0
Exports	7.1	5.8	6.0	6.7	7.0	7.4	7.7	7.8	7.9	7.3	6.7		
Imports	43.0	38.5	40.5	42.8	44.9	44.2	42.9	42.1	40.3	33.4	25.0		
Net current transfers (negative = inflow)	-37.9	-39.4	-38.9	-40.7	-36.0	-35.8	-34.1	-31.4	-28.7	-17.7	-6.4	-45.6	-28.6
of which: official	-37.6	-38.3	-38.0	-39.7	-34.9	-34.5	-32.8	-30.0	-27.3	-16.0	-5.0		
Other current account flows (negative = net inflow)	-0.9	-0.5	-0.5	-0.7	-0.7	-0.7	-0.7	-0.6	-0.6	-0.4	-0.2	-0.2	-0.6
Net FDI (negative = inflow)	-0.8	-0.6	-0.3	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-3.0	-6.8	-0.7	-1.4
Endogenous debt dynamics 2/	0.2	0.2	-0.2	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.6	-0.8		
Contribution from nominal interest rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2		
Contribution from real GDP growth	-0.1	-0.2	-0.2	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.7	-1.0		
Contribution from price and exchange rate changes	0.2	0.4	-0.1	…	…	…	…	…	…	…	…		
Residual 3/	4.0	6.8	5.3	6.7	-0.2	0.4	0.3	-1.5	-2.4	-3.0	-4.8	16.8	-0.4
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	…	…	3.3	3.6	3.9	3.9	4.0	3.9	3.9	8.5	11.3		
PV of PPG external debt-to-exports ratio	…	…	55.5	53.1	55.2	53.6	51.2	50.3	49.5	116.5	169.4		
PPG debt service-to-exports ratio	3.1	3.9	4.2	3.5	3.0	2.6	2.4	2.6	2.5	3.7	8.5		
PPG debt service-to-revenue ratio	2.2	2.1	2.1	2.0	1.8	1.6	1.4	1.5	1.3	1.6	3.3		
Gross external financing need (Million of U.S. dollars)	-707.8	-1477.8	-1022.6	-1109.4	157.0	15.7	26.3	462.8	716.3	1957.9	4342.8		
Key macroeconomic assumptions													
Real GDP growth (in percent)	1.0	2.2	2.7	2.3	3.0	3.5	4.0	4.5	5.0	6.1	6.1	6.8	4.7
GDP deflator in US dollar terms (change in percent)	-3.7	-5.2	1.5	-3.0	-4.8	1.0	2.1	2.7	2.8	2.0	2.0	2.6	0.9
Effective interest rate (percent) 4/	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	1.2	1.3	0.3	0.7
Growth of exports of G&S (US dollar terms, in percent)	-28.9	-19.9	7.5	10.4	2.8	9.4	11.6	8.6	8.9	6.7	7.8	0.5	7.6
Growth of imports of G&S (US dollar terms, in percent)	2.7	-13.3	9.6	5.0	2.8	3.0	3.1	5.1	3.4	5.0	5.0	11.1	3.8
Grant element of new public sector borrowing (in percent)	…	…	…	56.7	54.6	57.5	57.3	57.2	57.2	42.6	49.1	…	51.5
Government revenues (excluding grants, in percent of GDP)	10.0	10.7	12.2	11.8	11.7	11.8	12.8	14.0	15.4	17.0	17.3	9.9	14.5
Aid flows (in Million of US dollars) 5/	2937.6	3043.8	2670.2	2943.7	2272.9	3211.9	3581.1	3838.5	4062.4	4856.6	3755.8		
Grant-equivalent financing (in percent of GDP) 6/	…	…	…	14.8	11.7	15.7	16.5	16.5	16.2	12.1	4.5	…	14.8
Grant-equivalent financing (in percent of external financing) 6/	…	…	…	98.3	97.7	98.5	98.5	98.4	98.3	89.3	90.3	…	95.1
Nominal GDP (Million of US dollars)	20,057	19,428	20,235	20,085	19,692	20,577	21,853	23,442	25,294	37,036	81,107		
Nominal dollar GDP growth	-2.7	-3.1	4.2	-0.7	-2.0	4.5	6.2	7.3	7.9	8.2	8.2	9.5	5.7
Memorandum items:													
PV of external debt 7/	…	…	3.3	3.6	3.9	3.9	4.0	3.9	3.9	8.5	11.3		
In percent of exports	…	…	55.5	53.1	55.2	53.6	51.2	50.3	49.5	116.5	169.4		
Total external debt service-to-exports ratio	3.1	3.9	4.2	3.5	3.0	2.6	2.4	2.6	2.5	3.7	8.5		
PV of PPG external debt (in Million of US dollars)			676.8	714.9	763.7	811.3	865.7	923.1	989.9	3160.1	9193.5		
(PVt-PVt-1)/GDPt-1 (in percent)				0.2	0.2	0.2	0.3	0.3	0.3	1.6	0.5		
Non-interest current account deficit that stabilizes debt ratio	-3.4	-6.5	-4.8	-6.1	0.9	0.3	0.4	2.3	3.1	6.6	12.4		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No

Debt Accumulation

- Rate of Debt Accumulation
- Grant-equivalent financing (% of GDP)
- Grant element of new borrowing (% right scale)

External debt (nominal) 1/

of which: Private
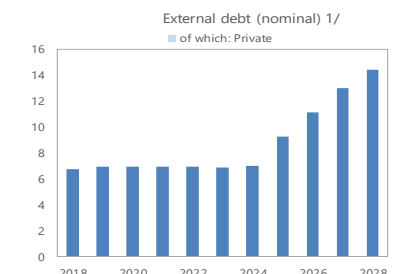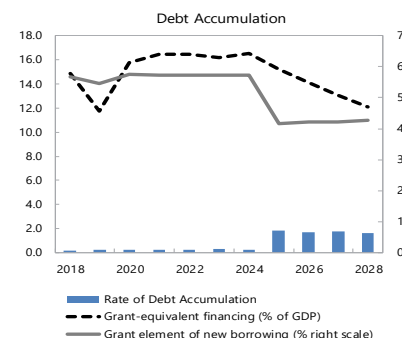
Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.
2/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.
3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.
4/ Current-year interest payments divided by previous period debt stock.
5/ Defined as grants, concessional loans, and debt relief.
6/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).
7/ Assumes that PV of private sector debt is equivalent to its face value.
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 2. Islamic Republic of Afghanistan: Public Sector Debt Sustainability Framework, Baseline Scenario, 2015–38

(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2028	2038	Historical	Projections
Public sector debt 1/	9.1	7.8	7.0	7.2	6.9	7.0	7.1	7.3	7.5	14.9	21.1	9.7	9.1
of which: external debt	6.8	6.1	5.9	6.7	6.9	6.9	6.9	6.9	6.9	14.4	17.2	8.9	8.7
Change in public sector debt	0.4	-1.3	-0.8	0.2	-0.3	0.1	0.1	0.2	0.2	1.3	0.4		
Identified debt-creating flows	2.1	-1.1	0.3	0.8	0.5	-0.4	-0.6	-0.6	-0.6	0.2	0.1	-1.2	0.1
Primary deficit	1.3	-0.2	0.6	0.4	0.8	-0.1	-0.2	-0.1	-0.1	1.0	1.3	0.9	0.5
Revenue and grants	24.6	26.1	25.3	26.4	23.1	27.2	29.0	30.1	31.2	28.0	21.3	22.9	28.6
of which: grants	14.6	15.4	13.0	14.5	11.4	15.4	16.2	16.1	15.8	11.0	4.0		
Primary (noninterest) expenditure	25.9	25.9	25.8	26.7	23.9	27.2	28.8	30.0	31.1	29.0	22.6	23.8	29.1
Automatic debt dynamics	0.8	-0.7	-0.1	0.4	-0.3	-0.3	-0.4	-0.4	-0.5	-0.9	-1.2		
Contribution from interest rate/growth differential	-0.1	-0.4	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.9	-1.2		
of which: contribution from average real interest rate	0.0	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1		
of which: contribution from real GDP growth	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.8	-1.2		
Contribution from real exchange rate depreciation	0.9	-0.3	0.2	…	…	…	…	…	…	…	…		
Other identified debt-creating flows	0.0	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0
Privatization receipts (negative)	0.0	-0.2	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	-1.7	-0.2	-1.1	0.1	-0.8	0.5	0.6	0.7	0.7	1.1	0.3	-0.1	0.7
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	…	…	4.5	4.4	4.0	4.0	4.2	4.4	4.5	9.1	15.4		
PV of public debt-to-revenue and grants ratio	…	…	17.9	16.6	17.2	14.8	14.4	14.5	14.4	32.7	72.4		
Debt service-to-revenue and grants ratio 3/	0.9	8.4	3.2	3.1	2.9	0.8	0.8	0.8	1.0	1.3	3.4		
Gross financing need 4/	1.5	2.0	1.4	1.2	1.4	0.2	0.1	0.1	0.2	1.4	2.1		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	1.0	2.2	2.7	2.3	3.0	3.5	4.0	4.5	5.0	6.1	6.1	6.8	4.7
Average nominal interest rate on external debt (in percent)	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	1.2	1.3	0.3	0.7
Average real interest rate on domestic debt (in percent)	-2.6	-5.0	-1.7	-1.0	-1.8	-4.3	7.1	4.1	3.2	3.5	2.1	-4.6	2.3
Real exchange rate depreciation (in percent, + indicates depreciation)	14.3	-4.8	4.2	…	…	…	…	…	…	…	…	0.0	…
Inflation rate (GDP deflator, in percent)	2.7	5.2	1.8	3.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.6	4.6
Growth of real primary spending (deflated by GDP deflator, in percent)	3.1	2.3	2.2	5.9	-8.0	17.8	10.3	8.9	8.7	3.4	3.8	9.0	6.0
Primary deficit that stabilizes the debt-to-GDP ratio 5/	0.9	1.1	1.4	0.1	1.1	-0.2	-0.3	-0.3	-0.3	-0.3	0.9	1.1	-0.2
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No

Public sector debt 1/

- of which: local-currency denominated
- of which: foreign-currency denominated

Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government, central bank. Definition of external debt is Currency-based.

2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.
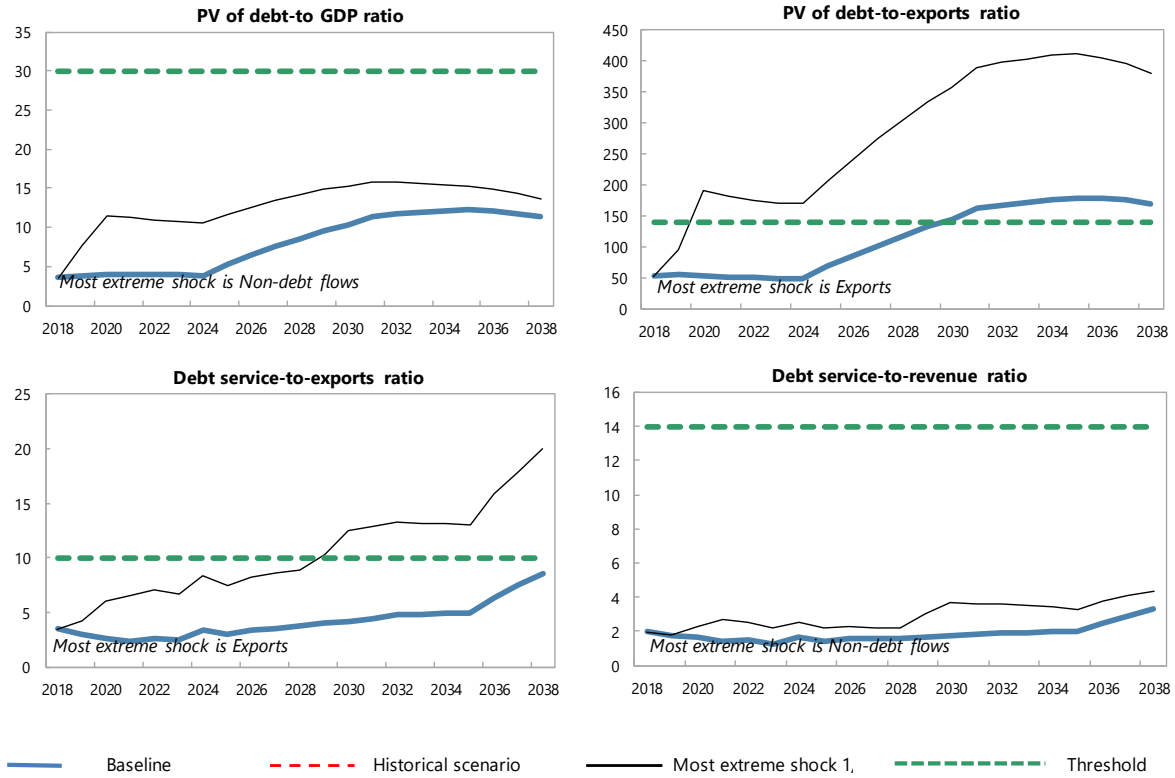
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.

4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.

6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Figure 1. Islamic Republic of Afghanistan: Indicators of Public and Publicly Guaranteed External Debt Under Alternatives Scenarios, 2018–28

PV of debt-to GDP ratio

Most extreme shock is Non-debt flows

PV of debt-to-exports ratio

Most extreme shock is Exports

Debt service-to-exports ratio

Most extreme shock is Exports

Debt service-to-revenue ratio

Most extreme shock is Non-debt flows

| | Baseline | Historical scenario | Most extreme shock 1, | Threshold |

Customization of Default Settings		
	Size	Interactions
Tailored Tests		
Combined CLs	No	
Natural Disasters	n.a.	n.a.
Commodity Prices 2/	n.a.	n.a.
Market Financing	n.a.	n.a.

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

Borrowing Assumptions for Stress Tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	1.1%	1.1%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	38	38
Avg. grace period	9	9

* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2028. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

Figure 2. Islamic Republic of Afghanistan: Indicators of Public Debt Under Alternative Scenarios, 2018–28
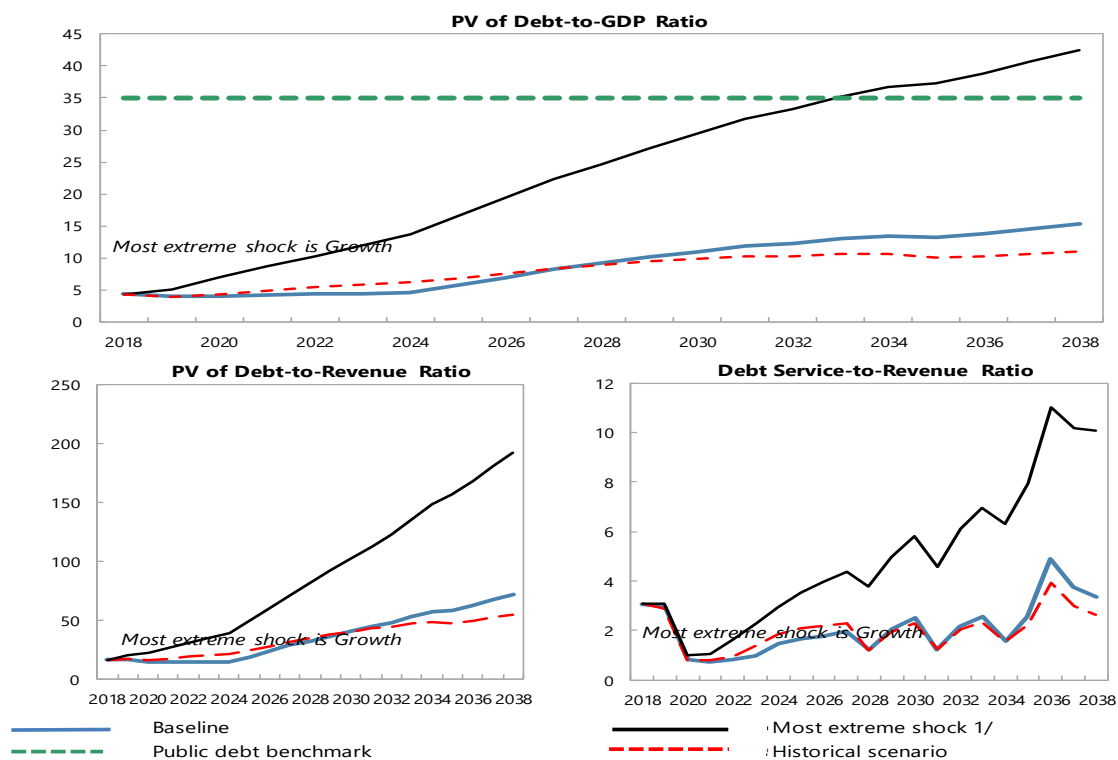
PV of Debt-to-GDP Ratio

Most extreme shock is Growth

PV of Debt-to-Revenue Ratio

Most extreme shock is Growth

Debt Service-to-Revenue Ratio

Most extreme shock is Growth

—— Baseline	—— Most extreme shock 1/
- - - Public debt benchmark	- - - Historical scenario

Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	86%	86%
Domestic medium and long-term	14%	14%
Domestic short-term	0%	0%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	1.1%	1.1%
Avg. maturity (incl. grace period)	38	38
Avg. grace period	9	9
Domestic MLT debt		
Avg. real interest rate on new borrowing	2.4%	2.4%
Avg. maturity (incl. grace period)	3	3
Avg. grace period	2	2
Domestic short-term debt		
Avg. real interest rate	0%	0%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2028. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

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Table 3. Islamic Republic of Afghanistan: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2018–28 (In percent)

	Projections										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PV of debt-to GDP ratio											
Baseline	**3.6**	**3.9**	**3.9**	**4.0**	**3.9**	**3.9**	**3.9**	**5.2**	**6.4**	**7.6**	**8.5**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2038 1/	3.6	-5.1	-12.9	-20.4	-28.3	-36.2	-43.3	-49.1	-55.2	-61.4	-67.8
B. Bound Tests											
B1. Real GDP growth	3.6	4.3	4.8	4.8	4.8	4.8	4.7	6.4	7.8	9.3	10.4
B2. Primary balance	3.6	4.5	5.5	5.5	5.5	5.6	5.5	6.8	7.9	9.0	9.9
B3. Exports	3.6	4.9	6.9	6.9	6.8	6.6	6.5	7.8	8.9	10.0	10.9
B4. Other flows 2/	3.6	7.6	11.4	11.3	11.0	10.7	10.5	11.6	12.5	13.4	14.2
B6. One-time 30 percent nominal depreciation	3.6	5.0	-1.2	-1.1	-0.9	-0.7	-0.6	1.4	3.1	4.8	6.2
B6. Combination of B1-B5	3.6	7.9	9.5	9.4	9.2	9.0	8.8	10.2	11.3	12.5	13.4
C. Tailored Tests											
C1. Combined contingent liabilities	3.6	6.8	6.9	6.8	7.1	6.9	6.8	8.1	9.2	10.2	11.1
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**	**30**
PV of debt-to-exports ratio											
Baseline	**53.1**	**55.2**	**53.6**	**51.2**	**50.3**	**49.5**	**49.4**	**68.3**	**84.9**	**102.1**	**116.5**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2038 1/	53.1	-72.2	-175.5	-263.3	-361.7	-458.7	-552.6	-639.7	-731.4	-827.1	-925.5
B. Bound Tests											
B1. Real GDP growth	53.1	55.2	53.6	51.2	50.3	49.5	49.4	68.3	84.9	102.1	116.5
B2. Primary balance	53.1	64.0	75.2	71.5	70.7	70.3	69.8	88.4	104.8	121.5	135.5
B3. Exports	53.1	96.7	192.0	181.5	176.3	171.4	169.6	207.8	241.2	275.6	304.2
B4. Other flows 2/	53.1	108.5	155.0	145.6	140.5	135.6	133.6	150.9	165.7	181.1	193.6
B6. One-time 30 percent nominal depreciation	53.1	55.2	-13.2	-10.9	-9.1	-7.2	-6.1	13.9	31.7	50.1	65.8
B6. Combination of B1-B5	53.1	123.9	114.0	159.9	154.9	150.1	148.3	175.0	198.1	222.1	241.9
C. Tailored Tests											
C1. Combined contingent liabilities	53.1	96.8	93.3	88.5	90.2	87.6	86.7	105.4	121.2	137.6	151.2
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**140**	**140**	**140**	**140**	**140**	**140**	**140**	**140**	**140**	**140**	**140**
Debt service-to-exports ratio											
Baseline	**3.5**	**3.0**	**2.6**	**2.4**	**2.6**	**2.5**	**3.4**	**3.0**	**3.4**	**3.6**	**3.7**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2038 1/	3.5	2.7	-0.2	-2.4	-4.0	-6.0	-7.4	-9.6	-11.2	-13.0	-14.7
B. Bound Tests											
B1. Real GDP growth	3.5	3.0	2.6	2.4	2.6	2.5	3.4	3.0	3.4	3.6	3.7
B2. Primary balance	3.5	3.0	2.8	2.8	3.0	2.9	3.8	3.4	3.7	3.9	4.1
B3. Exports	3.5	4.2	6.1	6.6	7.0	6.7	8.3	7.5	8.2	8.6	8.9
B4. Other flows 2/	3.5	3.0	3.7	4.4	4.6	4.3	5.0	4.6	4.9	5.0	5.1
B6. One-time 30 percent nominal depreciation	3.5	3.0	2.6	1.0	1.4	1.3	2.2	1.9	2.3	2.6	2.8
B6. Combination of B1-B5	3.5	3.5	5.4	5.3	5.6	5.3	6.5	5.9	6.3	6.6	6.8
C. Tailored Tests											
C1. Combined contingent liabilities	3.5	3.0	3.5	3.2	3.4	3.3	4.1	3.7	4.0	4.2	4.4
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
Debt service-to-revenue ratio											
Baseline	**2.0**	**1.8**	**1.6**	**1.4**	**1.5**	**1.3**	**1.7**	**1.4**	**1.5**	**1.6**	**1.6**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2038 1/	2.0	1.6	-0.1	-1.5	-2.3	-3.1	-3.7	-4.6	-5.2	-5.8	-6.3
B. Bound Tests											
B1. Real GDP growth	2.0	2.0	2.0	1.7	1.8	1.6	2.1	1.7	1.9	1.9	2.0
B2. Primary balance	2.0	1.8	1.7	1.7	1.7	1.5	1.9	1.6	1.7	1.7	1.8
B3. Exports	2.0	1.8	1.9	1.9	1.9	1.7	2.1	1.8	1.9	1.9	1.9
B4. Other flows 2/	2.0	1.8	2.3	2.7	2.5	2.2	2.5	2.2	2.3	2.2	2.2
B6. One-time 30 percent nominal depreciation	2.0	2.3	2.1	0.8	1.0	0.9	1.4	1.2	1.4	1.5	1.6
B6. Combination of B1-B5	2.0	1.9	2.6	2.4	2.4	2.1	2.5	2.1	2.2	2.2	2.2
C. Tailored Tests											
C1. Combined contingent liabilities	2.0	1.8	2.2	1.9	1.9	1.7	2.1	1.8	1.9	1.9	1.9
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**	**14**

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
2/ Includes official and private transfers and FDI.

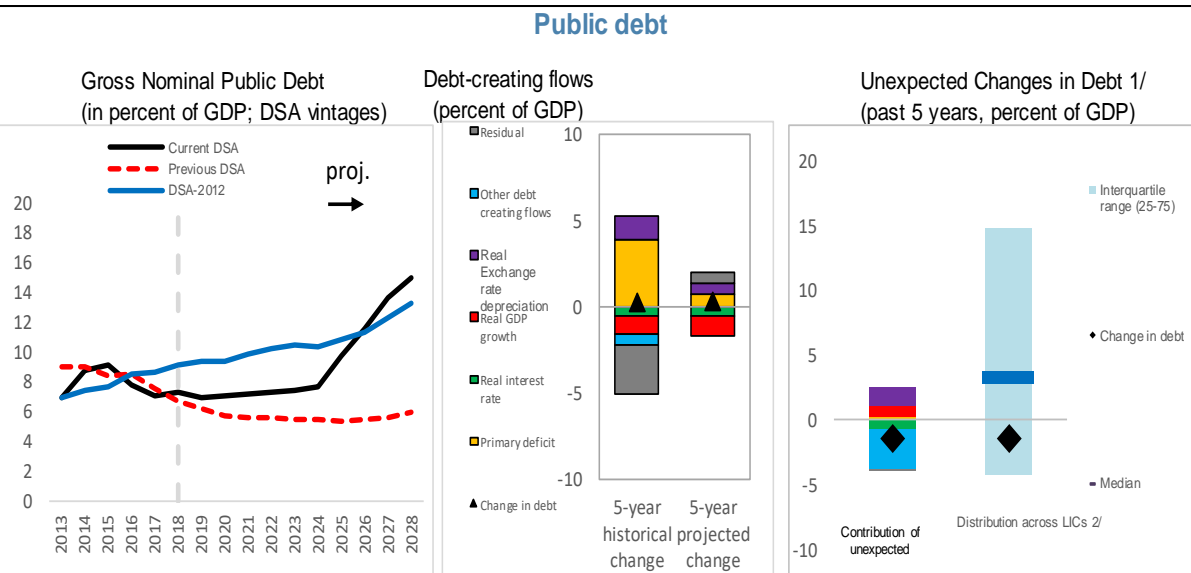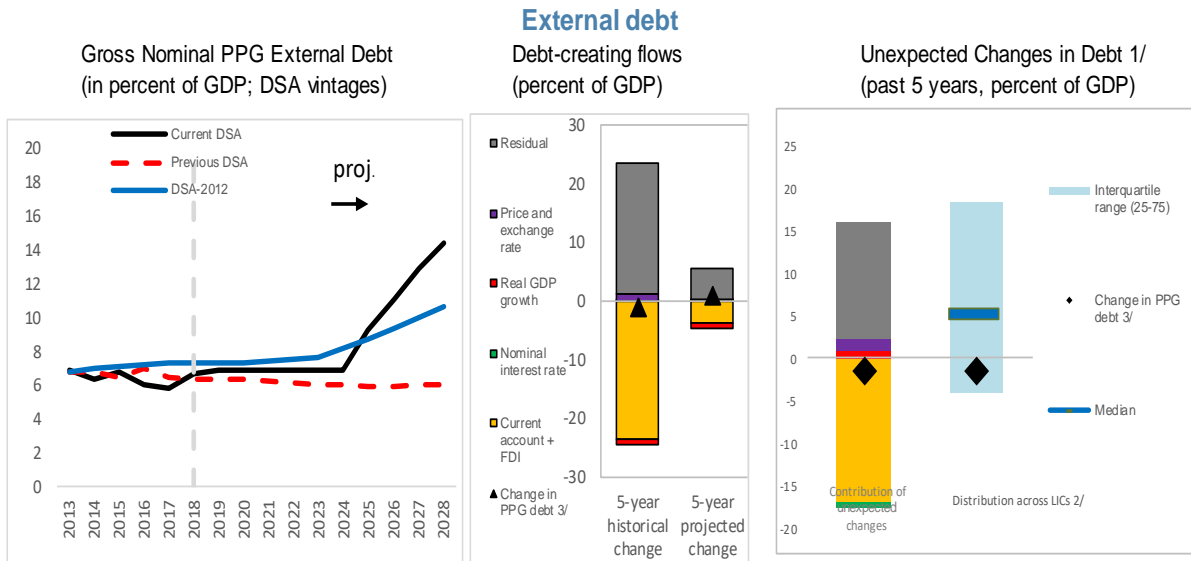## Table 4. Islamic Republic of Afghanistan: Sensitivity Analysis for Key Indicators of Public Debt, 2018–28

	Projections										
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
PV of Debt-to-GDP Ratio											
Baseline	**4.4**	**4.0**	**4.0**	**4.2**	**4.4**	**4.5**	**4.6**	**5.7**	**7.0**	**8.3**	**9.1**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2038 1/	4	4	4	5	5	6	6	7	8	8	9
B. Bound Tests											
B1. Real GDP growth	4	5	7	9	10	12	14	17	19	22	25
B2. Primary balance	4	5	6	6	6	6	6	7	8	10	11
B3. Exports	4	5	7	7	7	7	7	8	9	11	11
B4. Other flows 2/	4	8	12	12	11	11	11	12	13	14	15
B6. One-time 30 percent nominal depreciation	4	5	4	4	4	3	3	3	3	4	4
B6. Combination of B1-B5	4	5	6	4	5	5	5	6	7	9	10
C. Tailored Tests											
C1. Combined contingent liabilities	4	8	8	8	8	8	8	9	10	11	12
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Public debt benchmark	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**	**35**
PV of Debt-to-Revenue Ratio											
Baseline	**16.6**	**17.2**	**14.8**	**14.4**	**14.5**	**14.4**	**14.6**	**19.1**	**23.8**	**29.1**	**32.7**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2038 1/	17	17	17	18	19	20	21	25	28	32	35
B. Bound Tests											
B1. Real GDP growth	17	21	23	27	31	35	39	50	60	72	81
B2. Primary balance	17	21	22	21	21	20	20	24	29	34	38
B3. Exports	17	22	25	24	23	23	23	27	32	37	40
B4. Other flows 2/	17	34	43	40	38	36	36	41	45	50	53
B6. One-time 30 percent nominal depreciation	17	21	16	14	12	11	9	10	12	14	15
B6. Combination of B1-B5	17	21	21	15	15	16	16	21	25	31	34
C. Tailored Tests											
C1. Combined contingent liabilities	17	34	29	27	25	24	24	29	33	38	42
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio											
Baseline	**3.1**	**2.9**	**0.8**	**0.8**	**0.8**	**1.0**	**1.5**	**1.7**	**1.8**	**2.0**	**1.3**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2018-2038 1/	3	3	1	1	1	1	2	2	2	2	1
B. Bound Tests											
B1. Real GDP growth	3	3	1	1	2	2	3	4	4	4	4
B2. Primary balance	3	3	1	1	2	2	2	2	2	2	1
B3. Exports	3	3	1	1	1	1	2	2	2	2	1
B4. Other flows 2/	3	3	1	1	1	1	2	2	2	2	2
B6. One-time 30 percent nominal depreciation	3	3	1	1	1	1	1	2	2	2	1
B6. Combination of B1-B5	3	3	1	1	1	1	2	2	2	2	1
C. Tailored Tests											
C1. Combined contingent liabilities	3	3	1	1	4	1	2	2	2	2	1
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

2/ Includes official and private transfers and FDI.

Figure 3. Islamic Republic of Afghanistan: Drivers of Debt Dynamics—Baseline Scenario

External debt

Gross Nominal PPG External Debt
(in percent of GDP; DSA vintages)

Debt-creating flows
(percent of GDP)

Unexpected Changes in Debt 1/
(past 5 years, percent of GDP)

Public debt

Gross Nominal Public Debt
(in percent of GDP; DSA vintages)

Debt-creating flows
(percent of GDP)

Unexpected Changes in Debt 1/
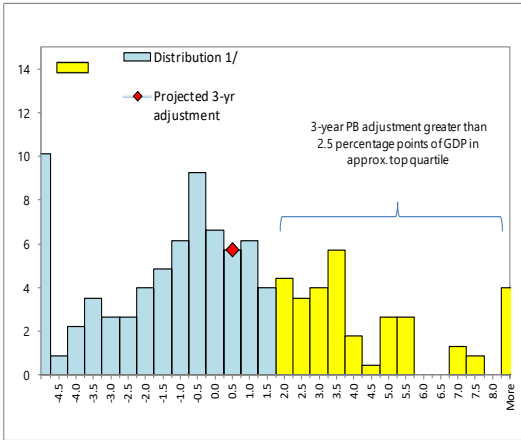(past 5 years, percent of GDP)

1/ Difference between anticipated and actual contributions on debt ratios.

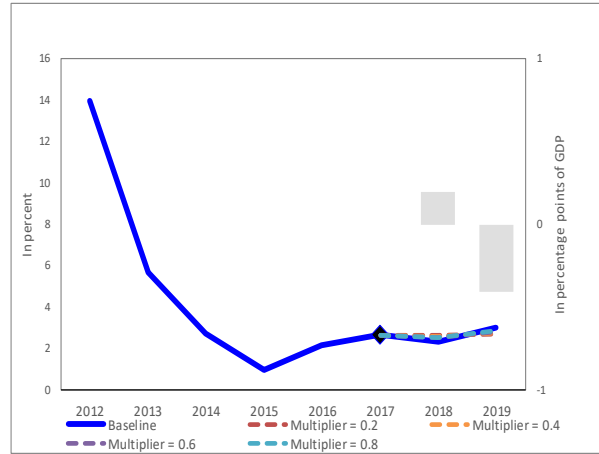2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

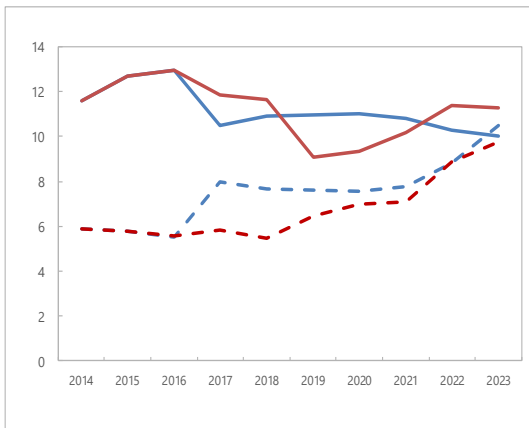## Figure 4. Islamic Republic of Afghanistan: Realism Tools

3-Year Adjustment in Primary Balance
(Percentage points of GDP)

1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

Fiscal Adjustment and Possible Growth Paths 1/

1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates
(% of GDP)

Contribution to Real GDP growth
(percent, 5-year average)

15