

**FOR  
AGENDA**

SM/14/102  
Supplement 2

April 23, 2014

To: Members of the Executive Board

From: The Secretary

Subject: **Islamic Republic of Afghanistan—Staff Report for the 2014 Article IV Consultation—Debt Sustainability Analysis**

The attached debt sustainability analysis, prepared jointly by the staffs of the Fund and the International Development Association, is being issued as a supplement to the staff report for the 2014 Article IV consultation with the Islamic Republic of Afghanistan (SM/14/102, 4/23/14), which is tentatively scheduled for discussion on **Friday, May 16, 2014**. Unless an objection from the authorities of the Islamic Republic of Afghanistan is received prior to the conclusion of the Board's consideration, the document will be published. Any requests for modifications for publication are expected to be received two days before the Board concludes its consideration.

Questions may be referred to Mr. Ross (ext. 38973) and Mr. Alkhunaizi (ext. 37101) in MCD.

Unless the Documents Section (ext. 36760) is otherwise notified, the document will be transmitted, in accordance with the procedures approved by the Executive Board and with the appropriate deletions, to the Asian Development Bank and the Islamic Development Bank, following its consideration by the Executive Board.

This document will shortly be posted on the extranet, a secure website for Executive Directors and member country authorities.

Att: (1)

Other Distribution:  
Department Heads





# ISLAMIC REPUBLIC OF AFGHANISTAN

## STAFF REPORT FOR THE 2014 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

April 23, 2014

Approved By  
**Adnan Mazarei and**  
**Dhaneshwar Ghura (IMF),**  
**Ernesto May and**  
**Jeffrey Lewis (IDA)**

Prepared by the staffs of the International Development Association and the International Monetary Fund<sup>1</sup>

*Afghanistan continues to be at high risk of debt distress. Although debt is modest currently, after extensive debt relief, Afghanistan relies heavily on donor grants (43 percent of GDP in 2013, including both on and off-budget grants). Under the baseline scenario, with continued reform and donor support, and smooth political and security transitions, debt is sustainable. However, there are significant vulnerabilities; should growth slow, reform stall, security deteriorate, or grant financing fall short of the projected levels, there will be a need to implement significant compensatory measures or its debt burden would quickly become unsustainable and Afghanistan would be at a high risk of debt distress. Accordingly, the authorities should redouble their efforts to mobilize revenue, press ahead with their reform efforts and raise the efficiency of public spending through careful prioritization and expenditure rationalization where feasible. Donors should provide financing in the form of grants.*

<sup>1</sup> This DSA was prepared by IMF staff with input from World Bank, using the standard debt sustainability framework for low-income countries (LIC-DSA); see "Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries" <https://www.imf.org/external/nppp/eng/2013/110513.pdf>. The updated debt sustainability analysis (DSA) contains a few changes relative to the one used in 2012 when the previous DSA was prepared. In particular, the updated DSF uses a higher discount rate (increased from 3 to 5 percent) and includes new benchmarks for total public debt, which did not exist previously. This DSA assumes a similar composition of external and domestic loan financing in the two alternative illustrative scenarios. The LIC-DSA compares the evolution over the projection period of debt-burden indicators against policy-dependent indicative thresholds, using the three-year average of the World Bank's Country Policy and Institutional Assessment (CPIA). With an average 2010–12 CPIA of 2.7, Afghanistan is classified as "weak performance" under the LIC-DSF.

## MACROECONOMIC OUTLOOK

1. **The outlook underlying the DSA is based on smooth security and political transitions, as well as continued reform and donor support.** This outlook is similar to the one presented in the previous DSA of June 2012 (Box 1). The baseline assumes that the 2014 elections, as well as subsequent ones, result in governments that pursue economic reforms and implement Afghanistan's development agenda, that Afghanistan's business environment and economic governance improve enabling private-sector-led growth, and that the security situation stabilizes. In 2012, donors announced substantial medium-term pledges. The NATO summit in Chicago resulted in pledges to finance Afghanistan's security spending, estimated at around \$4 billion annually over the following decade. At the same time, donors expect that Afghanistan will make gradually increasing and substantial contributions toward security. A second conference in Tokyo mobilized pledges for development aid of \$16 billion through 2015 and to sustain aid at similar levels through 2017. Development aid is linked to the progress in reforms under the Tokyo Mutual Accountability Framework. The baseline scenario assumes that the mining sector is developed, with some delays relative to the 2012 projections, and that business environment and economic governance improve.

**Box 1. Macroeconomic Assumptions Comparison Table<sup>1</sup>**

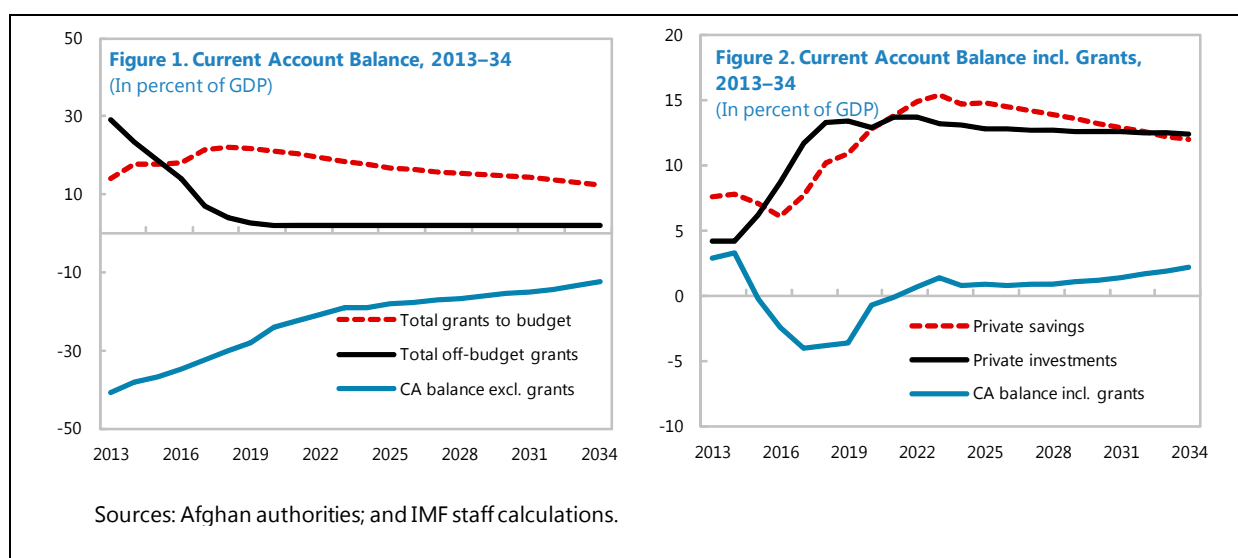
|  | DSA June 2012 |         | DSA February 2014 |         | (current vs. previous) |         |
|--|---------------|---------|-------------------|---------|------------------------|---------|
|  | 2012-16       | 2017-32 | 2012-16           | 2017-32 | 2012-16                | 2017-32 |
| Real growth (%)                            | 5.9           | 4.4     | 6.1               | 4.7     | 0.2                    | 0.3     |
| Inflation (GDP, deflator, %)               | 6.1           | 5.0     | 6.4               | 4.9     | 0.3                    | -0.1    |
| Nominal GDP (Bln-Afs)                      | 1298          | 3586    | 1267              | 3798    | -31                    | 212     |
| Revenue and grants (%GDP)                  | 29.9          | 35.1    | 27.3              | 34.2    | -2.6                   | -0.9    |
| Grants (%GDP)                              | 17.4          | 18.5    | 16.6              | 17.8    | -0.8                   | -0.7    |
| Primary expenditure (%GDP)                 | 30.3          | 36.4    | 27.6              | 35.2    | -2.7                   | -1.2    |
| Primary balance (%GDP)                     | 0.4           | 1.2     | 0.3               | 1.0     | -0.1                   | -0.2    |
| Exports of G&S (%GDP)                      | 14.8          | 24.5    | 14.5              | 23.1    | -0.3                   | -1.4    |
| Imports of G&S (% GDP)                     | 54.8          | 47.4    | 54.5              | 44.9    | -0.3                   | -2.5    |
| Noninterest current account balance (%GDP) | 1.3           | 2.0     | 1.5               | 0.0     | 0.2                    | -2.0    |

Sources: Country authorities; and IMF staff estimates and projections.

<sup>1</sup>The differences between the current and previous DSAs is explained by having new and improved data.

2. **Growth is projected to continue and the external current account (before grants) to improve gradually.** Under this scenario, GDP growth is projected to average about 4.7 percent in the medium term (2014–18), rise to around 6 percent in 2021 as mining production comes on-stream, and to converge to about 4 percent in the long run (Table 1 and 2a). The main change relative to the previous DSA relates to less buoyant foreign trade developments, due predominantly to lower projected mining activity, which

drives import and export dynamics in the outer years. The risks related to developments of extractive industries have increased since the previous DSA because investors have signaled delays. The external current account deficit before grants, while still large, is expected to improve gradually over the projection period. Export capacity should increase progressively—albeit from very low levels—and some import substitution is projected to take place. Development of the extractive industry should also contribute to exports. At the same time, donor-financed imports are projected to grow more slowly than in the past. Accordingly, the current account deficit should narrow gradually from about 40 percent of GDP in 2013 to about 12 percent of GDP at the end of the projection horizon (Figure 1).



3. **Given large spending needs and limited domestic revenue mobilization, total fiscal financing needs are expected to remain large but to decline as a share of GDP.** Afghanistan received substantial grants totaling 43 percent of GDP in 2013. In the medium term, the financing gap is projected to reach about \$7.7 billion (33 percent of GDP) annually on average through 2018,<sup>2</sup> as expenditure pressures continue and domestic revenue mobilization remains limited. While donors have pledged financial support for the medium term at the 2012 Chicago and Tokyo conferences, the longer-term prospects of donor flows are less certain. In the long run, both spending needs (moderated by some expenditure rationalization) and revenue capacity rise along with economic growth, so that on balance, the financing gap is projected to remain at similar levels (about \$7–8 billion at constant prices), but to fall relative to the size of the economy (from about 42 percent of GDP currently to about 19 percent in 2025, and to about 15 percent at the end of the projection horizon). Similarly, fiscal sustainability—defined as domestic revenues covering operating spending—is likely to remain low, because of the large grant-financed amounts being transferred on-budget (that were previously managed externally) as part of the security transition.

<sup>2</sup> The financing gap includes both on-budget and off-budget spending needs and is presented after residual domestic financing and a small amount of concessional loans from multilaterals.

**Table 1. Islamic Republic of Afghanistan: Medium-Term Macroeconomic Framework, 2013–33**

|   | Prel. | Projections  |       |       |       |       |       |                    |         |
|---|-------|--|-------|-------|-------|-------|-------|--------------------|---------|
|   |       | Medium Term  |       |       |       |       |       | Long term averages |         |
|   |       | 2013   | 2014  | 2015  | 2016  | 2017  | 2018  | 2019-23            | 2024-28 |
| Output and prices <sup>1</sup>                        |       | (Annual percentage change, unless otherwise indicated) |       |       |       |       |       |                    |         |
| Real GDP  | 3.6   | 3.2  | 4.5   | 5.0   | 5.1   | 5.3   | 5.6   | 4.1                | 4.0     |
| Nominal GDP (in billions of U.S. dollars)             | 20.7  | 21.7   | 23.2  | 24.8  | 26.4  | 28.1  | 34.5  | 46.4               | 62.0    |
| Consumer prices (period average) <sup>2</sup>         | 7.4   | 6.1  | 5.5   | 5.5   | 5.0   | 5.0   | 5.0   | 5.0                | 5.0     |
|   |       | (In percent of GDP, unless otherwise indicated)        |       |       |       |       |       |                    |         |
| Public finances                                       |       |  |       |       |       |       |       |                    |         |
| Domestic revenues and grants                          | 23.7  | 28.2   | 28.9  | 30.6  | 33.9  | 35.8  | 35.3  | 33.7               | 33.3    |
| Domestic revenues                                     | 9.5   | 10.3   | 11.1  | 12.5  | 12.5  | 13.8  | 15.1  | 17.2               | 19.0    |
| Grants  | 14.2  | 17.9   | 17.8  | 18.1  | 21.5  | 22.0  | 20.2  | 16.5               | 14.2    |
| Expenditures  | 24.3  | 28.6   | 29.7  | 30.6  | 34.7  | 36.7  | 36.6  | 35.2               | 34.3    |
| Operating <sup>3</sup>                                | 17.3  | 21.7   | 22.8  | 23.4  | 27.4  | 29.2  | 28.7  | 27.2               | 26.3    |
| Development   | 7.0   | 6.9  | 6.9   | 7.1   | 7.3   | 7.6   | 8.0   | 8.0                | 8.0     |
| Operating balance (excluding grants) <sup>4</sup>     | -7.8  | -11.4  | -11.7 | -11.0 | -14.9 | -15.4 | -13.6 | -10.0              | -7.3    |
| Overall budget balance (including grants)             | -0.6  | -0.4   | -0.8  | 0.0   | -0.8  | -1.0  | -1.3  | -1.5               | -1.1    |
| External sector <sup>1</sup>                          |       |  |       |       |       |       |       |                    |         |
| Exports of goods (in U.S. dollars, percentage change) | -5.2  | -7.9   | -3.3  | 4.4   | -3.1  | 18.5  | 22.7  | 6.1                | 7.2     |
| Imports of goods (in U.S. dollars, percentage change) | -6.8  | -1.6   | 2.4   | 3.3   | 1.3   | 2.1   | 4.9   | 4.3                | 4.8     |
| Merchandise trade balance                             | -41.0 | -39.0  | -37.8 | -36.3 | -34.6 | -31.8 | -24.4 | -20.3              | -19.6   |
| Current account balance, excluding grants             | -40.6 | -38.1  | -36.7 | -34.8 | -32.5 | -29.9 | -22.8 | -17.6              | -14.8   |
| Excluding official transfers                          | -40.6 | -38.1  | -36.7 | -34.8 | -32.5 | -29.9 | -22.8 | -17.6              | -14.8   |
| Gross reserves (in millions of U.S. dollars)          | 6,886 | 7,099  | 7,395 | 7,300 | 7,400 | 7,500 | 7,640 | 8,132              | 9,430   |
| Public Debt   |       |  |       |       |       |       |       |                    |         |
| Total public debt                                     | 6.1   | 5.9  | 5.8   | 6.5   | 7.5   | 9.4   | 10.7  | 13.5               | 16.8    |
| of which: Public external debt <sup>5</sup>           | 6.1   | 5.9  | 5.8   | 5.8   | 5.7   | 5.6   | 5.5   | 5.7                | 5.9     |

Sources: Afghan authorities; and Fund staff estimates and projections.

<sup>1</sup>Excluding the narcotics economy.<sup>2</sup>Revised with expanded, national coverage.<sup>3</sup>It is assumed that all recurrent expenditure is moved onto the budget during between 2012 and 2017. The actual rate of transfer on-budget is<sup>4</sup>Defined as domestic revenues minus operating expenditures.<sup>5</sup>After HIPC and MDRI debt relief, as well as debt relief beyond HIPC relief from Paris Club creditors.

4. **The reduction in the size of security forces is expected to take longer than projected in the 2012 DSA.**<sup>3</sup> The baseline assumes a delay in the reduction of army and police personnel relative to the previous DSA, but cost savings are expected to contain the overall level of security spending. As security accounts for more than 60 percent of recurrent spending, these outlays are projected to remain substantial, with security-related outlays projected to decline to 16.5 percent of GDP by 2018, to 13.7 percent by 2025, and stabilize at about 12 percent in the long term. Furthermore, with the on-budget transfer of previously donor-managed spending, as well as operations and maintenance costs related to the vast number of donor-funded projects implemented over the past decade, the growth in operating spending is projected to exceed the growth of domestic revenue capacity.<sup>4</sup> Finally, public spending will also rise on account of increases in the size of the civil service needed to provide public services at levels compatible with

<sup>3</sup> Relative to 2012, a lower (but not yet determined) number of international troops are expected to be stationed in Afghanistan after end-2014 and some delay in the reduction in the number of Afghan security forces.

<sup>4</sup> The recurrent operation and maintenance costs for all assets built in Afghanistan since 2002, excluding the security sector, are estimated at about \$1 billion annually or more—and growing as new assets are being built. Sustainment costs in the security sector are harder to estimate, but could be as high as \$2 billion per year.

government ambitions to make meaningful progress towards the Millennium Development Goals.<sup>5</sup> Given Afghanistan's large development needs, development spending is projected to be about 10 percent of GDP.

5. **Revenue is expected to increase, but less rapidly than in the previous DSA in the medium term but thereafter to improve.** Lower revenue during 2012–13 was caused by lower compliance, enforcement, lower confidence, and lower import growth and economic activity due to political and security uncertainties. Furthermore, because of delays in the parliamentary submission and passage of the draft VAT law, the introduction of the VAT has been delayed relative to the March 2014 date envisaged in the previous DSA. As a result, by 2018 the ratio of domestic revenues to GDP may only reach 13.8 percent. Finally, delays in mining projects will negatively affect the medium-term revenue outlook. The revenue impact of these delays is expected to be made up in the long run as the delays are overcome and revenue efforts are bolstered; domestic revenues will reach the level envisaged in the previous DSA by 2025. Additional measures and/or improved compliance will be needed to catch up with the normative projection for domestic revenues of 17 percent of GDP by 2025, and of 20 percent of GDP by mid 2030s that would bring Afghanistan's revenue-to-GDP ratio to that of a typical low income country. Accordingly, the baseline scenario assumes that (i) there will be delays in VAT introduction with an initial yield of 1½–2 percent of GDP; (ii) excise taxes will be introduced in 2018 and yield 1 percent of GDP in additional revenues; (iii) tax and customs administration reforms will be adequately implemented; and (iv) a fiscal regime for natural resources will be implemented ensuring that the government receives a reasonable share of economic rents.

## DEBT SUSTAINABILITY ANALYSIS

6. **Following extensive debt relief in 2006, Afghanistan's debt is modest currently.** Afghanistan's external public and publicly guaranteed debt is estimated to have amounted to \$1.3 billion, or 6.1 percent of GDP, at the end of 2013 (Table 1), almost all owed to multilateral creditors.<sup>6</sup> It is equivalent to 3.1 percent of GDP in present value (PV) terms, and to about 20 percent of exports and 33 percent of government revenues (Table 2). Under the baseline scenario—in which Afghanistan's financing needs, net of residual domestic financing, are entirely met by grants—the present value of public external debt would be about 3.8 percent of GDP by the end of the projection period, while the total public debt would be 17 percent, both below the indicative debt-burden threshold applicable to a country like Afghanistan.<sup>7</sup>

<sup>5</sup> Wage restraint is also assumed, with the wage growth rate limited to 1 percentage point over inflation.

<sup>6</sup> This debt stock is after delivery of the already-pledged debt relief commitments and excluding some minimal amounts of non-yet-reconciled or disputed debt. Afghanistan is still following up with one Paris Club creditor on its debt relief commitments, as well as with several non-Paris Club creditors on debt relief on comparable terms. In terms of debt structure and composition: apart from a small amount of legacy debt (less than 1 percent of total), most of the external debt is owed to multilateral institutions, mainly regional and international financial institutions.

<sup>7</sup> Under the DSA framework, the debt thresholds for countries with similar economic performance and income level as Afghanistan are: for the PV of debt—30 percent of GDP, 100 percent of exports, and 200 percent of revenues; for debt service, 15 percent of exports and 18 percent of revenues.

7. **However, Afghanistan remains at high risk of external debt distress because of risks to grant financing or because growth may be lower than projected.** As illustrated by the two customized illustrative scenarios below, Afghanistan faces significant risks and debt thresholds could be breached.<sup>8</sup> These two scenarios focus on the debt dynamics generated by one shock—a downward shift in either the growth or the grant path—to highlight the effects of these shocks. They do not take into account second round effects on trade, security, interest rates, and (in the lower grant scenario) growth. Consequently, the resulting debt dynamics as well as the overall assessment of Afghanistan’s macroeconomic conditions and aid dependency lead to a rating of a high risk of debt.<sup>9</sup> However, if the political transition proceeds smoothly and macroeconomic conditions continue to improve, the external risk rating may be lowered in future DSAs.

8. **Customized illustrative scenarios are necessary to take into account Afghanistan’s unique circumstances.** The two customized illustrative scenarios discussed in paragraphs 7, 9, and 10 are tailored to the specific circumstances of Afghanistan (see Table 2 for key scenario assumptions). In contrast, the standard shocks generated by the Debt Sustainability Framework are mostly driven by the past ten years. While for many countries the recent past might be a useful guide for projections, Afghanistan’s recent history—with average real GDP growth of 9.3 percent and official transfers of 50.6 percent of GDP over the past ten years—may have less utility as a guide for the future. The high GDP growth represented a catch-up from a low post-conflict base, and while large grant financing has been committed for the medium term, its projected magnitude is less (as a share of GDP) than grants received over the past decade, which were exceptionally large and frontloaded to finance post-conflict rehabilitation and reconstruction. Due to recent history, the standard shocks only result in one breach of the debt thresholds (the PV of debt to exports during this decade).<sup>10</sup> Hence, to examine debt sustainability with plausible downside risks, two customized illustrative scenarios and related frameworks were developed. While the standard DSF shocks are included in the accompanying figures and tables, they lead to benign debt dynamics. In this light, the external and overall risk ratings are guided by risks identified and laid out in the customized illustrative scenarios.

<sup>8</sup> This DSA assumes that, following introduction of domestic debt instruments (sukuks) expected in 2014–15, Afghanistan will have some (limited) domestic borrowing capacity. While under the baseline, sukuks are intended to be mainly for liquidity management and market development purposes, under the alternative scenarios, the government is assumed to borrow domestically up to the maximum level of 40 percent of GDP in the low grant scenario, after which government borrowing rates would increase exponentially while the exchange rate would start slipping as a result of current account imbalances and market pressures induced by the domestically financed fiscal deficit.

<sup>9</sup> This treatment is line with paragraph 73 of the LIC-DSF Guidance Note (footnote 1).

<sup>10</sup> The PV of debt to exports threshold is breached when net official transfers and net FDI are one standard deviation below their historical average (Figure 3). The shock is applied to two years (2015–2016) and thereafter the PV of debt to exports declines.



**Table 2. Islamic Republic of Afghanistan: Key Series for Debt Sustainability Scenario Analysis**  
(In percent of GDP, unless otherwise indicated)

|  | 2013<br>Prel | 2018<br>Proj | 2023<br>Proj | 2028<br>Proj | 2033<br>Proj |
|--|--------------|--------------|--------------|--------------|--------------|
| Baseline   |              |              |              |              |              |
| Real GDP growth, percent                             | 3.6          | 5.3          | 5.1          | 4.0          | 4.1          |
| Domestic revenues                                    | 9.5          | 13.8         | 16.2         | 17.9         | 19.7         |
| Total expenditures (incl. off-budget spending) 1/    | 53.6         | 40.8         | 38.0         | 37.2         | 36.4         |
| External concessional loans                          | 0.1          | 0.3          | 0.4          | 0.4          | 0.3          |
| Net domestic financing 2/                            | 0.7          | 0.7          | 1.1          | 1.5          | 1.1          |
| Donor grants 3/                                      | 43.2         | 26.1         | 20.3         | 17.4         | 15.2         |
| Public debt  | 6.1          | 9.4          | 12.5         | 17.0         | 17.3         |
| Domestic   | 0.0          | 3.8          | 7.0          | 11.2         | 11.4         |
| External   | 6.1          | 5.6          | 5.5          | 5.8          | 5.9          |
| Low grant scenario                                   |              |              |              |              |              |
| Real GDP growth, percent                             | 3.6          | 5.3          | 5.1          | 4.0          | 4.1          |
| Domestic revenues                                    | 9.5          | 13.4         | 15.0         | 16.6         | 18.2         |
| Total expenditures (incl. off-budget spending) 1/ 4/ | 53.6         | 40.9         | 40.2         | 41.4         | 41.5         |
| External concessional loans                          | 0.1          | 2.4          | 9.4          | 10.7         | 9.5          |
| Net domestic financing 2/                            | 0.7          | 2.8          | 3.5          | 3.9          | 4.9          |
| Donor grants 3/                                      | 43.2         | 22.4         | 12.2         | 10.3         | 8.8          |
| Public debt  | 6.1          | 15.8         | 60.3         | 107.3        | 141.5        |
| Domestic   | 0.0          | 6.2          | 16.8         | 27.3         | 37.9         |
| External   | 6.1          | 9.6          | 43.5         | 80.0         | 103.6        |
| Low growth scenario                                  |              |              |              |              |              |
| Real GDP growth, percent                             | 3.6          | 2.8          | 2.6          | 1.5          | 1.6          |
| Domestic revenues                                    | 9.5          | 13.9         | 16.5         | 18.4         | 20.3         |
| Total expenditures (incl. off-budget spending) 1/ 5/ | 53.6         | 43.5         | 43.6         | 45.5         | 46.7         |
| External concessional loans                          | 0.1          | 0.7          | 1.9          | 4.6          | 6.0          |
| Net domestic financing 2/                            | 0.7          | 1.1          | 1.8          | 1.6          | 2.0          |
| Donor grants 3/                                      | 43.2         | 27.8         | 23.4         | 20.9         | 18.5         |
| Public debt  | 6.1          | 12.6         | 23.4         | 44.9         | 71.3         |
| Domestic   | 0.0          | 4.0          | 9.5          | 14.5         | 19.5         |
| External   | 6.1          | 8.6          | 13.9         | 30.4         | 51.8         |

Sources: Afghan authorities; and IMF staff estimates and projections.

1/ It is assumed donors' off-budget spending is moved on budget by 2020, except for residual development spending, assumed to amount to 2 percent of GDP.

2/ Includes for treasury liquidity buffer, residual domestic debt issuance and sale of non-financial assets.

3/ Includes both on- and off-budget grants as well as projects managed directly by donors.

4/ Difference to baseline mostly due to higher interest payments.

5/ Lower growth in 2014-2033 results in nominal GDP in 2033 being about one third lower than in the baseline scenario. Differences with the baseline scenario are principally due to the limited compression of government expenditure despite lower GDP growth, reflecting an effort to maintain public services, and to higher interest payments.

9. **The “lower grants” customized illustrative scenario assumes a substantial drop in grants starting in 2017.** While donors are expected to follow through with their current pledges, this illustrative scenario assumes that lack of progress in reforms, subsequent donor fatigue, and/or a shift in donors’ priorities lead to a gradual reduction in aid beginning in 2017 and reaching 50 percent by 2021 and beyond, compared to the baseline. At the same time, it is assumed that the level of public services envisaged in the baseline scenario is preserved<sup>11</sup>, and additional revenue is not mobilized. In this illustrative scenario, nominal GDP levels are similar to the baseline scenario, imports are slightly lower because there is a shift in government expenditure away from imported goods resulting in a small decline in the domestic revenue to GDP ratio, and expenditure is higher because of additional interest payments. The resulting financing gap is covered with non-concessional external loans and domestic borrowing; the latter is capped at 40 percent of GDP.<sup>12</sup> Under this scenario, debt burden indicators deteriorate rapidly, breaching virtually every threshold. The PV of external debt would reach 94 percent of GDP, or over 340 percent of exports, by the end of the projection period. The PV of total public debt would reach 131 percent of GDP, around 525 percent of revenues, and the debt-service-to-revenue ratio more than 50 percent (Figure 4).

10. **The “low growth” customized illustrative scenario assumes a lower GDP output path.** This illustrative scenario assumes that economic governance and business environment reforms stall, while the political and security conditions remain uncertain, reducing confidence, discouraging investment, and resulting in lower growth. As a result, annual GDP growth is projected to be 2.5 percentage points lower than in the baseline during 2015–33—negatively affecting domestic revenues. Afghanistan’s history over the past few decades suggests a risk of long-term political instability, which could durably impact growth, investment, capital inflows, and the development of the extractive resource sector. In this illustrative scenario, lower growth in 2014–2033 results in nominal GDP in 2033 being about two thirds lower than in the baseline scenario. Domestic revenue is projected to grow slightly faster than nominal GDP, while limited compression of government expenditure results in expenditure growing much faster than GDP, because it is assumed that the level of public services is broadly preserved, in particular the wage bill, and also higher interest payments add to expenditure. Borrowing (non-concessional external loans and domestic borrowing) is used to fill the financing gap. Domestic debt is assumed to increase by 1 percentage point of GDP each year, reaching 20 percent of GDP in 2033. While this scenario is less adverse than the outright cut in grants—the PV of external debt would reach about 41 percent of GDP in 2033—it would again lead to a breach of all but one threshold (Figure 3). Furthermore, the PV of total public debt-to-GDP would also be breached around the end of the next decade.

<sup>11</sup> It is also anticipated that government shifts expenditure away from imported goods to minimize the impact on the external sector of lower grants and because there would be more spending flexibility grants are often earmarked by donors.

<sup>12</sup> For domestic borrowing, an increase of about 2 percentage points of GDP per year starts in 2017, and the cap is reached in 2034.

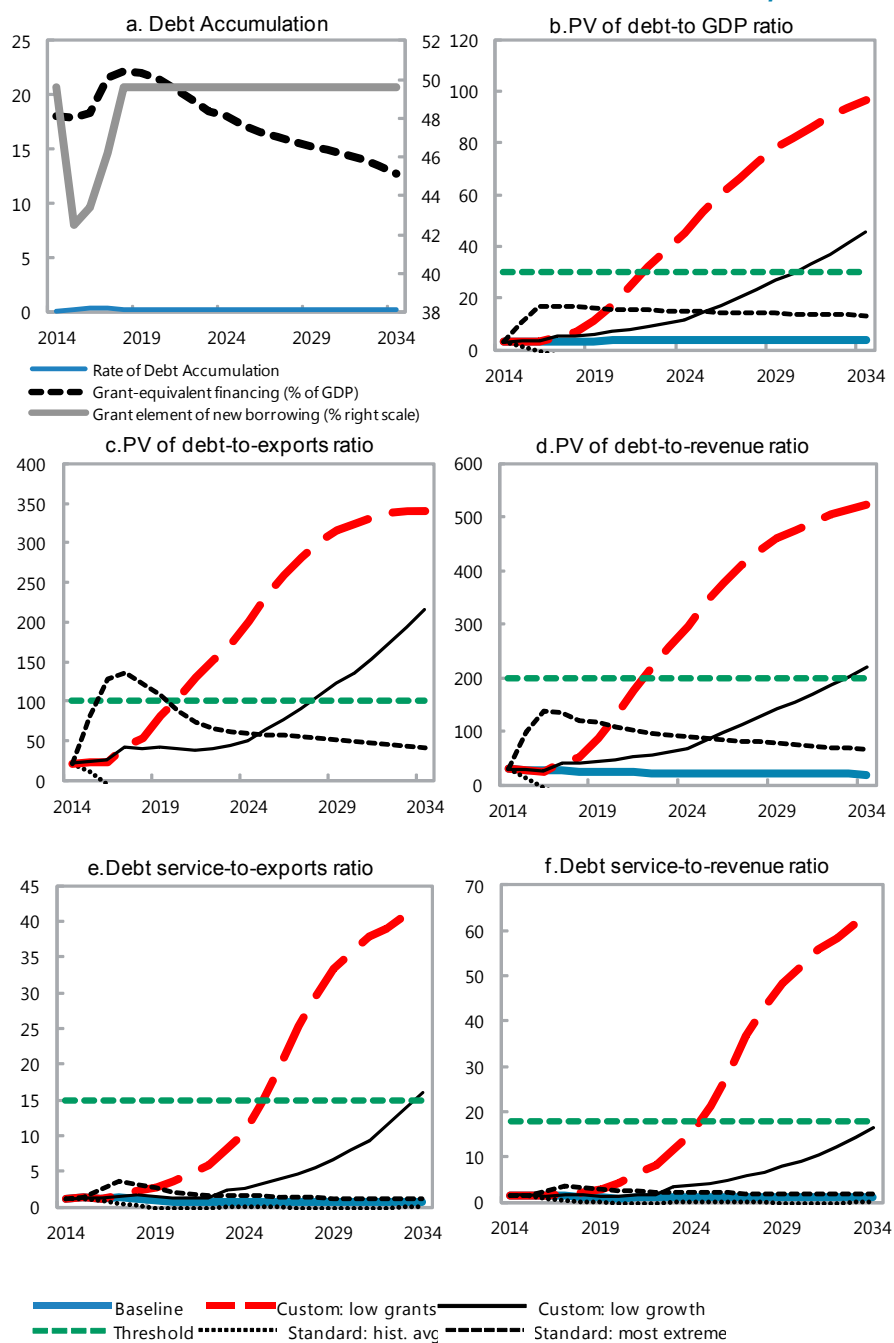
## AUTHORITIES' VIEWS

11. **The authorities agreed with the conclusions of the DSA.** They recognized the risks and are committed to doing their part in ensuring debt sustainability, while looking to donors to continue their assistance at the pledged levels. They noted that Afghanistan's large expenditure needs and donor countries' domestic fiscal and political realities combined could create pressures and, at times, called for a need to experiment with more debt financing. In this respect, they welcomed continued support from donors so that they have access to grant financing. They also acknowledged Fund advice that sukuks (domestic borrowing) be used predominantly as a liquidity management instrument, rather than to finance projects or recurrent fiscal deficits. They added that expenditure savings could potentially be made if donors intensified their efforts to further align their aid with Afghan priorities and channeled more funds through the budget.

## CONCLUSIONS

12. **Afghanistan will likely remain dependent on donor grant financing for years to come.** Security and development expenditure needs are large and the recently faltering domestic revenue effort is not matching the growth of spending. After extensive debt relief and substantial medium term pledges from donors, Afghanistan's debt outlook, under the baseline scenario, is benign. However, this is predicated on continued economic growth, progress in reforms, improvements in security as well as all donor assistance being provided in the form of grants. If growth and reform falter, and security deteriorates; or if grant financing falls short of the projected levels or is provided in the form of loans, even if concessional, Afghanistan would need to implement compensatory measures or its debt burden would quickly become unsustainable and threaten, in the extreme case, the continuity of government functions. This analysis underscores the need to redouble efforts to mobilize domestic revenue—with new policy measures as well as through administrative reform to improve compliance—prioritize spending carefully, pursue expenditure rationalization, and raise the efficiency of public spending. In addition, maintaining macroeconomic stability and vigorous economic reform efforts will continue to be needed to improve economic governance, strengthen the financial sector, and spur future growth.

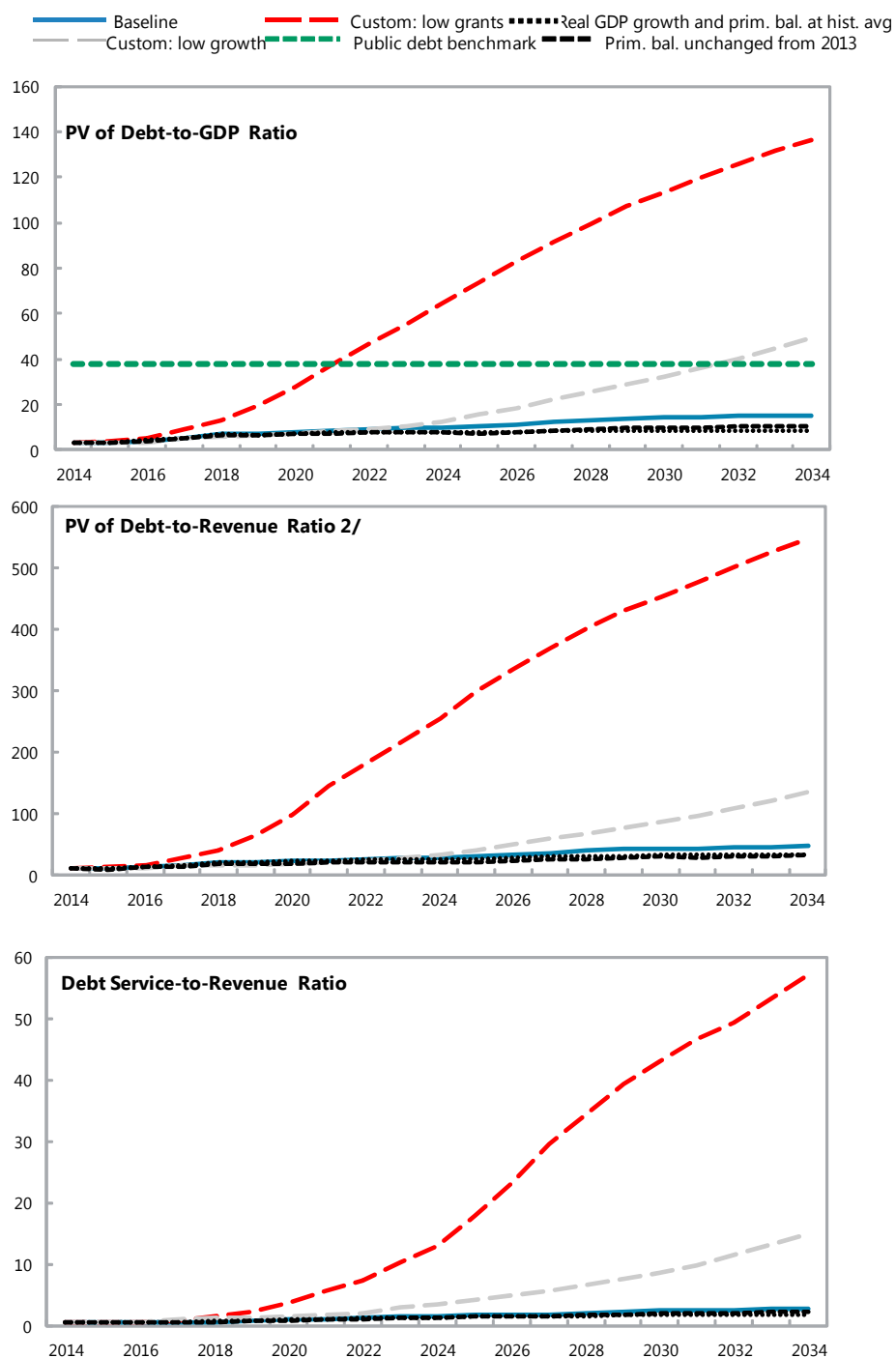
**Figure 3. Islamic Republic of Afghanistan: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2014–34<sup>1</sup>**



Sources: Afghan authorities; and IMF staff estimates and projections.

1/ Standard shock scenarios are added for informational purposes only; Custom scenarios should be regarded as realistic potential shocks. The most extreme standard stress test is the test that yields the highest ratio on or before 2023. In figure b, it corresponds to a nondebt flows shock; in c, to a nondebt flows shock; in d, to a nondebt flows shock; in e, to a nondebt flows shock and in figure f, to a nondebt flows shock.

**Figure 4. Islamic Republic of Afghanistan: Indicators of Public Debt Under Alternative Scenarios, 2014–34<sup>1</sup>**



Sources: Afghan authorities; and IMF staff estimates and projections.

1/ Standard shock scenarios are added for informational purposes only; Custom scenarios should be regarded as realistic potential shocks.

2/ Revenues are defined inclusive of grants.

Table 3a. Islamic Republic of Afghanistan: External Debt Sustainability Framework, Baseline Scenario, 2011–34<sup>1</sup>

|   | Actual |       | Estimate | Historical<br>Average | Standard<br>Deviation | Projections |       |       |       |       |       |                      |       |       |       |
|---|--------|-------|----------|-----------------------|-----------------------|-------------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|
|   | 2011   | 2012  | 2013     |                       |                       | 2014        | 2015  | 2016  | 2017  | 2018  | 2019  | 2014–2019<br>Average | 2024  | 2033  | 2034  |
| <b>External debt (nominal) 1/</b>                                       | 6.9    | 6.5   | 6.1      |                       |                       | 5.9         | 5.8   | 5.8   | 5.7   | 5.6   | 5.6   |                      | 5.6   | 5.9   | 5.9   |
| <i>of which: public and publicly guaranteed (PPG)</i>                   | 6.9    | 6.5   | 6.1      |                       |                       | 5.9         | 5.8   | 5.8   | 5.7   | 5.6   | 5.6   |                      | 5.6   | 5.9   | 5.9   |
| Change in external debt   | -1.6   | -0.5  | -0.4     |                       |                       | -0.2        | -0.1  | -0.1  | -0.1  | -0.1  | 0.0   |                      | 0.0   | 0.0   | 0.0   |
| Identified net debt-creating flows                                      | -6.4   | -6.8  | -3.7     |                       |                       | -4.7        | -1.4  | 0.1   | -0.3  | -1.7  | -1.5  |                      | -3.7  | -4.1  | -4.3  |
| <b>Non-interest current account deficit</b>                             | -3.2   | -4.0  | -2.9     | -2.7                  | 2.4                   | -3.4        | 0.2   | 2.4   | 4.0   | 3.8   | 3.6   |                      | -0.9  | -1.9  | -2.2  |
| Deficit in balance of goods and services                                | 44.7   | 44.8  | 41.9     |                       |                       | 39.4        | 37.9  | 36.1  | 34.0  | 31.0  | 28.9  |                      | 20.0  | 16.5  | 15.8  |
| Exports   | 17.3   | 15.9  | 15.9     |                       |                       | 14.3        | 13.3  | 13.2  | 12.4  | 13.5  | 14.9  |                      | 24.8  | 30.6  | 31.5  |
| Imports   | 62.0   | 60.7  | 57.7     |                       |                       | 53.7        | 51.3  | 49.3  | 46.3  | 44.5  | 43.8  |                      | 44.8  | 47.1  | 47.3  |
| Net current transfers (negative = inflow)                               | -47.4  | -48.2 | -44.0    | -47.4                 | 27.3                  | -42.1       | -37.1 | -33.2 | -29.4 | -27.1 | -25.7 |                      | -21.7 | -19.1 | -18.6 |
| <i>of which: official</i>   | -45.3  | -46.2 | -43.4    |                       |                       | -41.4       | -36.4 | -32.3 | -28.5 | -26.1 | -24.5 |                      | -19.8 | -15.2 | -14.5 |
| Other current account flows (negative = net inflow)                     | -0.5   | -0.5  | -0.7     |                       |                       | -0.7        | -0.6  | -0.5  | -0.6  | -0.1  | 0.4   |                      | 0.8   | 0.6   | 0.6   |
| <b>Net FDI (negative = inflow)</b>                                      | -2.1   | -2.0  | -0.7     | -1.9                  | 1.2                   | -1.2        | -1.4  | -2.1  | -4.1  | -5.3  | -4.8  |                      | -2.6  | -2.0  | -1.9  |
| <b>Endogenous debt dynamics 2/</b>                                      | -1.2   | -0.8  | -0.1     |                       |                       | -0.2        | -0.2  | -0.3  | -0.2  | -0.3  | -0.3  |                      | -0.2  | -0.2  | -0.2  |
| Contribution from nominal interest rate                                 | 0.1    | 0.0   | 0.0      |                       |                       | 0.0         | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |                      | 0.0   | 0.1   | 0.1   |
| Contribution from real GDP growth                                       | -0.5   | -0.9  | -0.2     |                       |                       | -0.2        | -0.2  | -0.3  | -0.3  | -0.3  | -0.3  |                      | -0.2  | -0.2  | -0.2  |
| Contribution from price and exchange rate changes                       | -0.7   | 0.0   | 0.1      |                       |                       | ...         | ...   | ...   | ...   | ...   | ...   |                      | ...   | ...   | ...   |
| <b>Residual (3-4) 3/</b>  | 4.8    | 6.3   | 3.3      |                       |                       | 4.5         | 1.3   | -0.2  | 0.3   | 1.6   | 1.4   |                      | 3.7   | 4.1   | 4.3   |
| <i>of which: exceptional financing</i>                                  | 0.0    | 0.0   | 0.0      |                       |                       | 0.0         | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |                      | 0.0   | 0.0   | 0.0   |
| PV of external debt 4/  | ...    | ...   | 3.1      |                       |                       | 3.1         | 3.1   | 3.2   | 3.3   | 3.3   | 3.4   |                      | 3.5   | 3.8   | 3.8   |
| In percent of exports   | ...    | ...   | 19.8     |                       |                       | 21.5        | 23.3  | 24.5  | 26.8  | 24.8  | 22.5  |                      | 14.2  | 12.5  | 12.1  |
| <b>PV of PPG external debt</b>  | ...    | ...   | 3.1      |                       |                       | 3.1         | 3.1   | 3.2   | 3.3   | 3.3   | 3.4   |                      | 3.5   | 3.8   | 3.8   |
| <b>In percent of exports</b>  | ...    | ...   | 19.8     |                       |                       | 21.5        | 23.3  | 24.5  | 26.8  | 24.8  | 22.5  |                      | 14.2  | 12.5  | 12.1  |
| <b>In percent of government revenues</b>                                | ...    | ...   | 33.0     |                       |                       | 29.8        | 28.1  | 25.9  | 26.6  | 24.3  | 24.1  |                      | 21.2  | 19.4  | 19.1  |
| <b>Debt service-to-exports ratio (in percent)</b>                       | 0.4    | 0.4   | 0.7      |                       |                       | 1.1         | 1.2   | 1.2   | 1.3   | 1.2   | 0.9   |                      | 0.7   | 0.7   | 0.6   |
| <b>PPG debt service-to-exports ratio (in percent)</b>                   | 0.4    | 0.4   | 0.7      |                       |                       | 1.1         | 1.2   | 1.2   | 1.3   | 1.2   | 0.9   |                      | 0.7   | 0.7   | 0.6   |
| <b>PPG debt service-to-revenue ratio (in percent)</b>                   | 0.7    | 0.6   | 1.2      |                       |                       | 1.5         | 1.5   | 1.3   | 1.3   | 1.1   | 0.9   |                      | 1.0   | 1.0   | 1.0   |
| Total gross financing need (Billions of U.S. dollars)                   | -0.9   | -1.2  | -0.7     |                       |                       | -1.0        | -0.2  | 0.1   | 0.0   | -0.4  | -0.3  |                      | -1.4  | -2.6  | -2.9  |
| Non-interest current account deficit that stabilizes debt ratio         | -1.6   | -3.5  | -2.5     |                       |                       | -3.2        | 0.3   | 2.5   | 4.1   | 3.9   | 3.7   |                      | -0.9  | -1.9  | -2.2  |
| <b>Key macroeconomic assumptions</b>                                    |        |       |          |                       |                       |             |       |       |       |       |       |                      |       |       |       |
| Real GDP growth (in percent)  | 6.5    | 14.0  | 3.6      | 8.8                   | 6.1                   | 3.2         | 4.5   | 5.0   | 5.1   | 5.3   | 5.6   | 5.4                  | 4.6   | 4.1   | 4.1   |
| GDP deflator in US dollar terms (change in percent)                     | 9.6    | -0.5  | -1.4     | 7.4                   | 7.1                   | 1.6         | 2.2   | 1.6   | 1.3   | 1.3   | 1.1   | 2.9                  | 1.4   | 2.0   | 2.0   |
| Effective interest rate (percent) 5/                                    | 0.9    | 0.6   | 0.3      | 1.0                   | 0.8                   | 0.4         | 0.4   | 0.4   | 0.5   | 0.6   | 0.7   | 0.6                  | 0.8   | 1.0   | 1.0   |
| Growth of exports of G&S (US dollar terms, in percent)                  | 2.4    | 4.3   | 2.0      | 8.4                   | 13.7                  | -5.3        | -0.5  | 5.5   | -0.1  | 16.1  | 18.3  | 7.0                  | 7.4   | 9.1   | 9.1   |
| Growth of imports of G&S (US dollar terms, in percent)                  | 2.9    | 11.0  | -2.8     | 8.0                   | 7.3                   | -2.4        | 1.9   | 2.6   | 0.1   | 2.4   | 5.2   | 3.1                  | 7.3   | 6.6   | 6.5   |
| Grant element of new public sector borrowing (in percent)               | ...    | ...   | ...      | ...                   | ...                   | 49.6        | 42.5  | 43.4  | 46.2  | 49.6  | 49.6  | 46.8                 | 49.6  | 49.6  | 49.6  |
| Government revenues (excluding grants, in percent of GDP)               | 11.0   | 10.1  | 9.5      | ...                   | ...                   | 10.3        | 11.1  | 12.5  | 12.5  | 13.8  | 14.0  | ...                  | 16.6  | 19.7  | 20.0  |
| Aid flows (in Billions of US dollars) 7/                                | 1.9    | 3.1   | 3.0      | ...                   | ...                   | 3.9         | 4.1   | 4.5   | 5.7   | 6.2   | 6.5   | ...                  | 7.3   | 9.2   | 9.2   |
| <i>of which: Grants</i>   | 1.8    | 3.1   | 2.9      | ...                   | ...                   | 3.9         | 4.1   | 4.5   | 5.7   | 6.2   | 6.5   | ...                  | 7.3   | 9.2   | 9.2   |
| <i>of which: Concessional loans</i>                                     | 0.0    | 0.1   | 0.1      | ...                   | ...                   | 0.0         | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | ...                  | 0.0   | 0.0   | 0.0   |
| Grant-equivalent financing (in percent of GDP) 8/                       | ...    | ...   | ...      | ...                   | ...                   | 18.0        | 18.0  | 18.3  | 21.7  | 22.2  | 22.0  | ...                  | 18.0  | 13.5  | 12.7  |
| Grant-equivalent financing (in percent of external financing) 8/        | ...    | ...   | ...      | ...                   | ...                   | 99.4        | 98.7  | 98.6  | 99.0  | 99.2  | 99.1  | ...                  | 98.7  | 98.3  | 98.2  |
| <b>Memorandum items:</b>  |        |       |          |                       |                       |             |       |       |       |       |       |                      |       |       |       |
| Nominal GDP (Billions of US dollars)                                    | 17.9   | 20.3  | 20.7     | ...                   | ...                   | 21.7        | 23.2  | 24.8  | 26.4  | 28.1  | 30.0  | ...                  | 41.3  | ...   | 73.6  |
| Nominal dollar GDP growth   | 16.7   | 13.4  | 2.2      | ...                   | ...                   | 4.9         | 6.8   | 6.7   | 6.4   | 6.6   | 6.8   | 6.4                  | 6.1   | ...   | 6.1   |
| PV of PPG external debt (in Billions of US dollars)                     | ...    | ...   | 0.6      | ...                   | ...                   | 0.7         | 0.7   | 0.8   | 0.9   | 0.9   | 1.0   | ...                  | 1.4   | ...   | 2.8   |
| (PVt-PVt-1)/GDPt-1 (in percent)   | ...    | ...   | ...      | ...                   | ...                   | 0.1         | 0.2   | 0.3   | 0.3   | 0.2   | 0.2   | 0.2                  | 0.2   | ...   | 0.2   |
| Gross workers' remittances (Billions of US dollars)                     | 0.4    | 0.4   | 0.3      | ...                   | ...                   | 0.3         | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | ...                  | 0.4   | ...   | 0.5   |
| PV of PPG external debt (in percent of GDP + remittances)               | ...    | ...   | 3.1      | ...                   | ...                   | 3.0         | 3.1   | 3.2   | 3.3   | 3.3   | 3.3   | ...                  | 3.5   | ...   | 3.8   |
| PV of PPG external debt (in percent of exports + remittances)           | ...    | ...   | 18.2     | ...                   | ...                   | 19.6        | 21.3  | 22.3  | 24.4  | 22.8  | 20.9  | ...                  | 13.7  | ...   | 11.9  |
| Debt service of PPG external debt (in percent of exports + remittances) | ...    | ...   | 0.7      | ...                   | ...                   | 1.0         | 1.1   | 1.1   | 1.2   | 1.1   | 0.8   | ...                  | 0.7   | ...   | 0.6   |

Sources: Afghan authorities; and IMF staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as  $[r - g - p(1+g)] / (1+g+p+gp)$  times previous period debt ratio, with  $r$  = nominal interest rate;  $g$  = real GDP growth rate, and  $p$  = 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/ Assumes that PV of private sector debt is equivalent to its face value.

5/ Current-year interest payments divided by previous period debt stock.

6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

7/ Defined as grants, concessional loans, and debt relief.

8/ 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).

**Table 3b. Islamic Republic of Afghanistan: Sensitivity for Key Indicators of Public and Publicly Guarantee External Debt, 2013–34**  
(In percent)

|  | Estimate | Projections |      |      |      |      |      |      |      |      |
|--|----------|-------------|------|------|------|------|------|------|------|------|
|  | 2013     | 2014        | 2015 | 2016 | 2017 | 2018 | 2019 | 2024 | 2033 | 2034 |
| <b>PV of debt-to GDP ratio</b>   |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>  | 3        | 3           | 3    | 3    | 3    | 3    | 3    | 4    | 4    | 4    |
| <b>A. Alternative Scenarios (Standard and Customized)</b>  |          |             |      |      |      |      |      |      |      |      |
| A1. Key variables at their historical averages in 2014-2034 1/                                     | 3        | 3           | 1    | -1   | -2   | -3   | -4   | -4   | -3   | -3   |
| A2. New public sector loans on less favorable terms in 2014-2034 2                                 | 3        | 3           | 3    | 3    | 4    | 4    | 4    | 4    | 6    | 6    |
| Customized 1. Lower real GDP growth  | 3        | 3           | 3    | 3    | 5    | 6    | 6    | 12   | 41   | 45   |
| Customized 2. Lower grants   | 3        | 3           | 3    | 3    | 5    | 7    | 11   | 45   | 94   | 96   |
| <b>B. Bound Tests</b>  |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth at historical average minus one standard deviation in 2015-2016                | 3        | 3           | 3    | 3    | 3    | 3    | 3    | 4    | 4    | 4    |
| B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/         | 3        | 3           | 3    | 4    | 4    | 4    | 4    | 4    | 5    | 5    |
| B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016         | 3        | 3           | 3    | 3    | 3    | 3    | 3    | 4    | 4    | 4    |
| B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/ | 3        | 3           | 11   | 17   | 17   | 16   | 16   | 15   | 13   | 13   |
| B5. Combination of B1-B4 using one-half standard deviation shocks                                  | 3        | 3           | 4    | 3    | 3    | 3    | 3    | 3    | 4    | 4    |
| B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/                   | 3        | 3           | 4    | 4    | 5    | 5    | 5    | 5    | 5    | 5    |
| <b>PV of debt-to-exports ratio</b>   |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>  | 20       | 21          | 23   | 24   | 27   | 25   | 23   | 14   | 13   | 12   |
| <b>A. Alternative Scenarios (Standard and Customized)</b>  |          |             |      |      |      |      |      |      |      |      |
| A1. Key variables at their historical averages in 2014-2034 1/                                     | 20       | 21          | 10   | -6   | -20  | -26  | -30  | -14  | -11  | -10  |
| A2. New public sector loans on less favorable terms in 2014-2034 2                                 | 20       | 21          | 23   | 25   | 28   | 27   | 25   | 18   | 18   | 18   |
| Customized 1. Lower real GDP growth  | 20       | 22          | 24   | 25   | 41   | 41   | 42   | 51   | 194  | 215  |
| Customized 2. Lower grants   | 19       | 21          | 23   | 24   | 43   | 54   | 82   | 202  | 340  | 340  |
| <b>B. Bound Tests</b>  |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth at historical average minus one standard deviation in 2015-2016                | 20       | 21          | 23   | 24   | 26   | 24   | 22   | 14   | 12   | 12   |
| B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/         | 20       | 21          | 26   | 38   | 41   | 38   | 34   | 21   | 17   | 17   |
| B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016         | 20       | 21          | 23   | 24   | 26   | 24   | 22   | 14   | 12   | 12   |
| B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/ | 20       | 21          | 81   | 129  | 135  | 122  | 108  | 59   | 44   | 42   |
| B5. Combination of B1-B4 using one-half standard deviation shocks                                  | 20       | 21          | 30   | 27   | 29   | 27   | 24   | 15   | 13   | 13   |
| B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/                   | 20       | 21          | 23   | 24   | 26   | 24   | 22   | 14   | 12   | 12   |
| <b>PV of debt-to-revenue ratio</b>   |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>  | 33       | 30          | 28   | 26   | 27   | 24   | 24   | 21   | 19   | 19   |
| <b>A. Alternative Scenarios (Standard and Customized)</b>  |          |             |      |      |      |      |      |      |      |      |
| A1. Key variables at their historical averages in 2014-2034 1/                                     | 33       | 30          | 12   | -6   | -20  | -25  | -32  | -22  | -17  | -15  |
| A2. New public sector loans on less favorable terms in 2014-2034 2                                 | 33       | 30          | 28   | 27   | 28   | 26   | 27   | 27   | 28   | 28   |
| Customized 1. Lower real GDP growth  | 32       | 29          | 28   | 27   | 41   | 40   | 43   | 68   | 203  | 219  |
| Customized 2. Lower grants   | 32       | 29          | 27   | 25   | 42   | 52   | 85   | 295  | 514  | 522  |
| <b>B. Bound Tests</b>  |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth at historical average minus one standard deviation in 2015-2016                | 33       | 30          | 28   | 26   | 27   | 25   | 25   | 22   | 20   | 20   |
| B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/         | 33       | 30          | 30   | 34   | 35   | 31   | 31   | 26   | 23   | 23   |
| B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016         | 33       | 30          | 28   | 26   | 27   | 25   | 24   | 22   | 20   | 19   |
| B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/ | 33       | 30          | 97   | 136  | 134  | 119  | 115  | 89   | 68   | 66   |
| B5. Combination of B1-B4 using one-half standard deviation shocks                                  | 33       | 30          | 36   | 26   | 27   | 24   | 24   | 21   | 19   | 19   |
| B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/                   | 33       | 30          | 39   | 36   | 37   | 34   | 33   | 30   | 27   | 27   |

**Table 3b. Islamic Republic of Afghanistan: Sensitivity for Key Indicators of Public and Publicly Guarantee External Debt, 2013–34 (Continued)**  
(In percent)

|  | Estimate | Projections |      |      |      |      |      |      |      |      |
|--|----------|-------------|------|------|------|------|------|------|------|------|
|  | 2013     | 2014        | 2015 | 2016 | 2017 | 2018 | 2019 | 2024 | 2033 | 2034 |
| <b>Debt service-to-exports ratio</b>   |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>  | 1        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>A. Alternative Scenarios (Standard and Customized)</b>  |          |             |      |      |      |      |      |      |      |      |
| A1. Key variables at their historical averages in 2014-2034 1/                                     | 1        | 1           | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| A2. New public sector loans on less favorable terms in 2014-2034 2                                 | 1        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Customized 1. Lower real GDP growth  | 1        | 1           | 1    | 1    | 2    | 2    | 1    | 3    | 14   | 16   |
| Customized 2. Lower grants   | 1        | 1           | 1    | 1    | 2    | 2    | 3    | 10   | 41   | 42   |
| <b>B. Bound Tests</b>  |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth at historical average minus one standard deviation in 2015-2016                | 1        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/         | 1        | 1           | 1    | 1    | 2    | 2    | 1    | 1    | 1    | 1    |
| B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016         | 1        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/ | 1        | 1           | 1    | 2    | 4    | 3    | 3    | 1    | 1    | 1    |
| B5. Combination of B1-B4 using one-half standard deviation shocks                                  | 1        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/                   | 1        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>Debt service-to-revenue ratio</b>   |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>  | 1        | 2           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| <b>A. Alternative Scenarios (Standard and Customized)</b>  |          |             |      |      |      |      |      |      |      |      |
| A1. Key variables at their historical averages in 2014-2034 1/                                     | 1        | 2           | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| A2. New public sector loans on less favorable terms in 2014-2034 2                                 | 1        | 2           | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    |
| Customized 1. Lower real GDP growth  | 1        | 2           | 2    | 1    | 2    | 2    | 1    | 4    | 14   | 16   |
| Customized 2. Lower grants   | 1        | 2           | 1    | 1    | 2    | 2    | 3    | 15   | 61   | 65   |
| <b>B. Bound Tests</b>  |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth at historical average minus one standard deviation in 2015-2016                | 1        | 2           | 2    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| B2. Export value growth at historical average minus one standard deviation in 2015-2016 3/         | 1        | 2           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| B3. US dollar GDP deflator at historical average minus one standard deviation in 2015-2016         | 1        | 2           | 2    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| B4. Net non-debt creating flows at historical average minus one standard deviation in 2015-2016 4/ | 1        | 2           | 1    | 3    | 4    | 3    | 3    | 2    | 2    | 2    |
| B5. Combination of B1-B4 using one-half standard deviation shocks                                  | 1        | 2           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| B6. One-time 30 percent nominal depreciation relative to the baseline in 2015 5/                   | 1        | 2           | 2    | 2    | 2    | 2    | 1    | 1    | 1    | 1    |
| <b>Memorandum item:</b>  |          |             |      |      |      |      |      |      |      |      |
| Grant element assumed on residual financing (i.e., financing required above baseline) 6/           | 57       | 57          | 57   | 57   | 57   | 57   | 57   | 57   | 57   | 57   |

Sources: Afghan authorities; and IMF staff estimates and projections.

1/ Applies only to standard DSA

2/ Applies only to standard DSA

3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.



**Table 4a. Islamic Republic of Afghanistan: Public Sector Debt Sustainability Framework, Baseline Scenario, 2011–34**  
(In percent of GDP, unless otherwise indicated)

|  | Actual |      | Estimate | Average | s/  | Standard<br>Deviation | s/   | Projections |      |      |      |      |      |      |      |      |
|--|--------|------|----------|---------|-----|-----------------------|------|-------------|------|------|------|------|------|------|------|------|
|  | 2011   | 2012 | 2013     |         |     |                       |      | 2014        | 2015 | 2016 | 2017 | 2018 | 2019 | 2024 | 2033 | 2034 |
| <b>Public sector debt 1/</b>   | 6.9    | 6.5  | 6.1      |         |     |                       |      | 5.9         | 5.8  | 6.5  | 7.5  | 9.4  | 9.3  | 12.0 | 17.3 | 17.4 |
| <i>of which: foreign-currency denominated</i>                          | 6.9    | 6.5  | 6.1      |         |     |                       |      | 5.9         | 5.8  | 5.8  | 5.7  | 5.6  | 5.6  | 5.6  | 5.9  | 5.9  |
| Change in public sector debt   | -1.6   | -0.5 | -0.4     |         |     |                       |      | -0.2        | -0.1 | 0.7  | 1.0  | 1.9  | -0.1 | 0.4  | 0.2  | 0.2  |
| Identified debt-creating flows   | -0.1   | -1.8 | 0.5      |         |     |                       |      | 0.1         | 0.5  | -0.4 | 0.0  | -0.9 | 0.5  | 0.5  | 0.1  | 0.1  |
| Primary deficit  | 0.6    | -0.2 | 0.6      | 0.9     |     | 1.5                   |      | 0.4         | 0.8  | -0.1 | 0.7  | 0.9  | 1.3  | 1.0  | 0.7  | 0.7  |
| Revenue and grants   | 21.3   | 25.2 | 23.7     |         |     |                       |      | 28.2        | 28.9 | 30.6 | 33.9 | 35.8 | 35.8 | 34.4 | 33.0 | 32.5 |
| <i>of which: grants</i>  | 10.3   | 15.1 | 14.2     |         |     |                       |      | 17.9        | 17.8 | 18.1 | 21.5 | 22.0 | 21.8 | 17.8 | 13.2 | 12.5 |
| Primary (noninterest) expenditure                                      | 21.8   | 25.0 | 24.3     |         |     |                       |      | 28.6        | 29.7 | 30.5 | 34.7 | 36.6 | 37.1 | 35.4 | 33.6 | 33.2 |
| Automatic debt dynamics  | -0.6   | -1.0 | -0.1     |         |     |                       |      | -0.3        | -0.3 | -0.4 | -0.4 | -0.4 | -0.5 | -0.4 | -0.5 | -0.5 |
| Contribution from interest rate/growth differential                    | -0.7   | -0.9 | -0.3     |         |     |                       |      | -0.3        | -0.3 | -0.4 | -0.4 | -0.5 | -0.6 | -0.5 | -0.5 | -0.5 |
| <i>of which: contribution from average real interest rate</i>          | -0.2   | -0.1 | -0.1     |         |     |                       |      | -0.1        | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | 0.0  | 0.1  | 0.1  |
| <i>of which: contribution from real GDP growth</i>                     | -0.5   | -0.9 | -0.2     |         |     |                       |      | -0.2        | -0.3 | -0.3 | -0.3 | -0.4 | -0.5 | -0.5 | -0.7 | -0.7 |
| Contribution from real exchange rate depreciation                      | 0.1    | 0.0  | 0.2      |         |     |                       |      | 0.0         | 0.0  | 0.0  | 0.0  | 0.1  | 0.1  | ...  | ...  | ...  |
| Other identified debt-creating flows                                   | -0.1   | -0.6 | 0.0      |         |     |                       |      | 0.0         | 0.0  | 0.0  | -0.4 | -1.4 | -0.3 | 0.0  | 0.0  | 0.0  |
| Privatization receipts (negative)                                      | -0.1   | -0.6 | 0.0      |         |     |                       |      | 0.0         | 0.0  | 0.0  | -0.4 | -1.4 | -0.3 | 0.0  | 0.0  | 0.0  |
| Recognition of implicit or contingent liabilities                      | 0.0    | 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  | 0.0  |
| Other (specify, 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  | 0.0  |
| Residual, including asset changes                                      | -1.5   | 1.4  | -0.8     |         |     |                       |      | -0.3        | -0.6 | 1.1  | 1.0  | 2.8  | -0.5 | -0.2 | 0.1  | 0.0  |
| <b>Other Sustainability Indicators</b>                                 |        |      |          |         |     |                       |      |             |      |      |      |      |      |      |      |      |
| <b>PV of public sector debt</b>  | ...    | ...  | 3.1      |         |     |                       |      | 3.1         | 3.1  | 3.9  | 5.1  | 7.2  | 7.1  | 9.9  | 15.2 | 15.3 |
| <i>of which: foreign-currency denominated</i>                          | ...    | ...  | 3.1      |         |     |                       |      | 3.1         | 3.1  | 3.2  | 3.3  | 3.3  | 3.4  | 3.5  | 3.8  | 3.8  |
| <i>of which: external</i>  | ...    | ...  | 3.1      |         |     |                       |      | 3.1         | 3.1  | 3.2  | 3.3  | 3.3  | 3.4  | 3.5  | 3.8  | 3.8  |
| PV of contingent liabilities (not included in public sector debt)      | ...    | ...  | ...      |         |     |                       |      | ...         | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Gross financing need 2/  | 0.7    | -0.2 | 0.7      |         |     |                       |      | 0.5         | 1.0  | 0.1  | 0.9  | 1.1  | 1.6  | 1.5  | 1.5  | 1.6  |
| PV of public sector debt-to-revenue and grants ratio (in percent)      | ...    | ...  | 13.2     |         |     |                       |      | 10.9        | 10.8 | 12.9 | 15.2 | 20.0 | 20.0 | 28.9 | 46.1 | 47.2 |
| PV of public sector debt-to-revenue ratio (in percent)                 | ...    | ...  | 33.0     |         |     |                       |      | 29.8        | 28.1 | 31.7 | 41.2 | 52.0 | 51.1 | 59.9 | 77.0 | 76.6 |
| <i>of which: external 3/</i>   | ...    | ...  | 33.0     |         |     |                       |      | 29.8        | 28.1 | 25.9 | 26.6 | 24.3 | 24.1 | 21.2 | 19.4 | 19.1 |
| Debt service-to-revenue and grants ratio (in percent) 4/               | 0.3    | 0.2  | 0.5      |         |     |                       |      | 0.6         | 0.6  | 0.5  | 0.5  | 0.7  | 0.9  | 1.6  | 2.7  | 2.8  |
| Debt service-to-revenue ratio (in percent) 4/                          | 0.7    | 0.6  | 1.2      |         |     |                       |      | 1.5         | 1.5  | 1.3  | 1.5  | 1.7  | 2.2  | 3.3  | 4.5  | 4.6  |
| Primary deficit that stabilizes the debt-to-GDP ratio                  | 2.2    | 0.2  | 1.0      |         |     |                       |      | 0.6         | 0.9  | -0.7 | -0.3 | -1.0 | 1.4  | 0.6  | 0.4  | 0.5  |
| <b>Key macroeconomic and fiscal assumptions</b>                        |        |      |          |         |     |                       |      |             |      |      |      |      |      |      |      |      |
| Real GDP growth (in percent)   | 6.5    | 14.0 | 3.6      | 8.8     | 6.1 |                       |      | 3.2         | 4.5  | 5.0  | 5.1  | 5.3  | 5.6  | 4.6  | 4.1  | 4.1  |
| Average nominal interest rate on forex debt (in percent)               | 0.9    | 0.6  | 0.3      | 1.8     | 2.9 |                       |      | 0.4         | 0.4  | 0.4  | 0.5  | 0.6  | 0.7  | 0.8  | 1.0  | 1.0  |
| Average real interest rate on domestic debt (in percent)               | ...    | ...  | ...      | ...     | ... |                       |      | ...         | ...  | ...  | -1.2 | 0.0  | 0.3  | 1.7  | 1.7  | 1.8  |
| Real exchange rate depreciation (in percent, + indicates depreciation) | 1.5    | -0.2 | 2.8      | -4.1    | 4.6 | -0.9                  | ...  | ...         | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...  |
| Inflation rate (GDP deflator, in percent)                              | 10.3   | 8.5  | 7.2      | 8.7     | 4.8 | 5.3                   | 5.7  | 5.4         | 4.9  | 4.9  | 4.9  | 4.9  | 5.0  | 5.0  | 5.0  | 5.0  |
| Growth of real primary spending (deflated by GDP deflator, in percent) | 12.2   | 30.4 | 0.6      | 4.5     | 9.9 | 21.7                  | 8.4  | 8.0         | 19.3 | 11.2 | 6.8  | 3.9  | 2.8  | 2.8  | 2.8  | 2.8  |
| Grant element of new external borrowing (in percent)                   | ...    | ...  | ...      | ...     | ... | 49.6                  | 42.5 | 43.4        | 46.2 | 49.6 | 49.6 | 49.6 | 49.6 | 49.6 | 49.6 | 49.6 |

Sources: Afghan authorities; and IMF staff estimates and projections.

1/ Central government

2/ 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.

3/ Revenues excluding grants.

4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

**Table 4b. Islamic Republic of Afghanistan: Sensitivity Analysis for Key Indicators of Public Debt 2013–34**  
(In percent of GDP, unless otherwise indicated)

|   | Estimate | Projections |      |      |      |      |      |      |      |      |
|---|----------|-------------|------|------|------|------|------|------|------|------|
|   | 2013     | 2014        | 2015 | 2016 | 2017 | 2018 | 2019 | 2024 | 2033 | 2034 |
| <b>PV of Debt-to-GDP Ratio</b>  |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>   | 3        | 3           | 3    | 4    | 5    | 7    | 7    | 10   | 15   | 15   |
| <b>A. Alternative scenarios (Standard and Customized)</b>                               |          |             |      |      |      |      |      |      |      |      |
| A1. Real GDP growth and primary balance are at historical averages                      | 3        | 3           | 3    | 4    | 5    | 7    | 7    | 8    | 9    | 9    |
| A2. Primary balance is unchanged from 2014  | 3        | 3           | 3    | 4    | 5    | 7    | 6    | 8    | 10   | 11   |
| Customized 1. Lower real GDP growth   | 3        | 3           | 3    | 3    | 5    | 6    | 6    | 12   | 41   | 45   |
| Customized 2. Lower grants  | 3        | 3           | 4    | 5    | 9    | 13   | 20   | 64   | 131  | 136  |
| <b>B. Bound tests</b>   |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth is at historical average minus one standard deviations in 2015-2016 | 3        | 3           | 3    | 4    | 6    | 8    | 9    | 13   | 21   | 21   |
| B2. Primary balance is at historical average minus one standard deviations in 2015-2016 | 3        | 3           | 4    | 6    | 7    | 9    | 9    | 12   | 16   | 17   |
| B3. Combination of B1-B2 using one half standard deviation shocks                       | 3        | 3           | 4    | 5    | 6    | 8    | 8    | 10   | 13   | 13   |
| B4. One-time 30 percent real depreciation in 2015                                       | 3        | 3           | 4    | 5    | 6    | 8    | 8    | 11   | 15   | 16   |
| B5. 10 percent of GDP increase in other debt-creating flows in 2015                     | 3        | 3           | 8    | 9    | 10   | 12   | 12   | 14   | 18   | 18   |
| <b>PV of Debt-to-Revenue Ratio 2/</b>   |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>   | 13       | 11          | 11   | 13   | 15   | 20   | 20   | 29   | 46   | 47   |
| <b>A. Alternative scenarios (Standard and Customized)</b>                               |          |             |      |      |      |      |      |      |      |      |
| A1. Real GDP growth and primary balance are at historical averages                      | 13       | 11          | 11   | 14   | 17   | 21   | 20   | 27   | 33   | 34   |
| A2. Primary balance is unchanged from 2014  | 13       | 11          | 10   | 13   | 15   | 19   | 18   | 22   | 32   | 32   |
| Customized 1. Lower real GDP growth   | 13       | 11          | 11   | 11   | 15   | 15   | 16   | 30   | 112  | 124  |
| Customized 2. Lower grants  | 13       | 11          | 13   | 17   | 29   | 42   | 66   | 256  | 525  | 548  |
| <b>B. Bound tests</b>   |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth is at historical average minus one standard deviations in 2015-2016 | 13       | 11          | 11   | 14   | 17   | 23   | 23   | 37   | 62   | 65   |
| B2. Primary balance is at historical average minus one standard deviations in 2015-2016 | 13       | 11          | 14   | 20   | 21   | 25   | 25   | 34   | 50   | 51   |
| B3. Combination of B1-B2 using one half standard deviation shocks                       | 13       | 11          | 12   | 17   | 18   | 23   | 22   | 28   | 41   | 41   |
| B4. One-time 30 percent real depreciation in 2015                                       | 13       | 11          | 15   | 17   | 18   | 23   | 23   | 31   | 47   | 48   |
| B5. 10 percent of GDP increase in other debt-creating flows in 2015                     | 13       | 11          | 29   | 30   | 30   | 33   | 33   | 40   | 55   | 56   |
| <b>Debt Service-to-Revenue Ratio 2/</b>   |          |             |      |      |      |      |      |      |      |      |
| <b>Baseline</b>   | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 2    | 3    | 3    |
| <b>A. Alternative scenarios (Standard and Customized)</b>                               |          |             |      |      |      |      |      |      |      |      |
| A1. Real GDP growth and primary balance are at historical averages                      | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    |
| A2. Primary balance is unchanged from 2014  | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    |
| Customized 1. Lower real GDP growth   | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 3    | 11   | 13   |
| Customized 2. Lower grants  | 0        | 1           | 1    | 1    | 1    | 1    | 2    | 13   | 53   | 57   |
| <b>B. Bound tests</b>   |          |             |      |      |      |      |      |      |      |      |
| B1. Real GDP growth is at historical average minus one standard deviations in 2015-2016 | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 2    | 3    | 3    |
| B2. Primary balance is at historical average minus one standard deviations in 2015-2016 | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 2    | 3    | 3    |
| B3. Combination of B1-B2 using one half standard deviation shocks                       | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 3    |
| B4. One-time 30 percent real depreciation in 2015                                       | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 2    | 3    | 3    |
| B5. 10 percent of GDP increase in other debt-creating flows in 2015                     | 0        | 1           | 1    | 1    | 1    | 1    | 1    | 2    | 3    | 3    |

Sources: Afghan authorities; and IMF staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.