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STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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Myanmar is assessed to remain at low risk of debt distress.[1,2,3] *Under the baseline scenario, public and publicly guaranteed (PPG) external debt burden indicators are projected to remain below their indicative thresholds. Similarly, total public debt is also projected to remain below the benchmark in the baseline, though stress tests lead to breaches in the event of an extreme shock, fiscal slippages and a severe natural disaster. These vulnerabilities call for close monitoring, in particular because there is potential for both domestic and external downside risks (such as uncertain growth in China and weak natural gas prices) to materialize that may adversely affect the level of debt. Therefore, to keep Myanmar at low risk of debt distress, the authorities need gradually to consolidate the fiscal position while continuing to strengthen economic resilience, including by building up policy buffers and broadening the productive base. Use of nonconcessional borrowing should be limited to high-return projects.*

[1] External public and publicly guaranteed (PPG) debt and public domestic debt dynamics are assessed using the LIC DSA framework, which recognizes that better policies and institutions allow countries to manage higher levels of debt, and thus the threshold levels are policy dependent. The quality of a country's policies and institutions are normally measured by the World Bank's Country Policy and Institutional Assessment (CPIA). The most conservative thresholds are applied for the purposes of this DSA based on the average CPIA index of the last two years which indicate a weak rating for Myanmar.

[2] The DSA was jointly prepared by the IMF and the World Bank staffs.

[3] This risk rating is unchanged from the previous DSA, published in September 2015, as a part of the staff report for the 2015 Article IV consultation with Myanmar (SR/15/267) http://www.imf.org/external/pubs/cat/longres.aspx?sk=43293.0

BACKGROUND

1. **The external and public debt sustainability analyses are based on the standard LIC DSA framework**. The DSA framework presents the projected path of Myanmar's external and public sector debt burden indicators, and draws conclusions on the sustainability of debt.

2. **The underlying macroeconomic assumptions remain broadly unchanged from the last DSA but updates have been made taking into account several changes in both the external and domestic environment since the last Article IV consultation**. Myanmar is undergoing a major economic transition, and its long-term economic prospects are favorable on account of continued reform and external support. Main macroeconomic assumptions:

- Growth remained robust in 2015/16 at about 7.3 percent, but is expected to soften in 2016/2017 as a result of a number of transitory factors since the new government took office in April 2016. Over the medium term, growth is expected to converge to its estimated potential rate of 7-8 percent, as private investments begin to accelerate and production in the special economic zones gradually rises. Over the longer term, growth will slow down to somewhat below 7 percent (see Table 1), as Myanmar's income levels rise.

- Inflation (GDP deflator, percent change y/y) is projected to fall slowly and average around 7.2 percent over the medium term (2021/22). Long-term inflation is expected to settle at around 5 percent in line with staff's recommended inflation objective.

- The fiscal deficit widened in 2015/2016 to 4.1 percent of GDP, and is expected to remain above 4 percent in 2016/2017, reflecting slowdown in revenue growth and in part an expected increase in expenditure on key infrastructure and social services. The staff advises the authorities to keep the fiscal deficit at no more than 4.5 percent of GDP in the medium term and gradually reducing the deficit below that level over the longer term in line with slower GDP growth.

- The current account deficit is expected to remain relatively high over the medium term at between 6-7 percent, reflecting Myanmar's strong investment and development needs, but is expected to fall over time as export capacity strengthens.

Table 1. Myanmar: Key Macroeconomic Assumptions Underlying the DSA for the Baseline Scenario (FY2016/17-36/37)

	Current DSA		Previous DSA	
	2016/17-2021/22	2022/23 - 2036/37	2015/16-2020/21	2021/22 - 2035/36
Real GDP Growth (in percent)	7.3	6.6	8.1	6.8
Inflation (GDP deflator percent change, y/y)	7.2	5.1	9.1	4.7
Overall fiscal balance (in percent of GDP)	-4.5	-4.1	-4.5	-4.2
Noninterest current account (in percent of GDP)	-6.3	-5.5	-7.3	-4.4
Revenue (nonfinancial public sector; in percent of GDP)	17.1	18.8	21.3	23.8
Memo:				
PV of public debt	32.6	34.4	29.1	32.1
PV of external public debt	11.8	11.4	11.9	14.2
PV of domestic public debt	20.8	23.0	17.2	17.9

Source: IMF staff estimates.

3. Reliance on external concessional financing is expected to rise over the medium term, similar to the previous DSA. While bilateral creditors (Japan and China) remain the biggest lenders to Myanmar (see Table 2), the Asian Development Bank and the World Bank are gradually stepping up concessional financing to Myanmar. In the medium term, external debt commitments from multilaterals and other concessional lenders (i.e., JICA) are expected to rise,[4] although lags in disbursements may occur given weak project implementation capacity. Reliance on nonconcessional borrowing is expected to decline over the medium term, as concessional financing from multilateral and bilateral lenders becomes more readily available. However, we assume that the share of nonconcessional borrowing in the total external borrowing will gradually increase over the long term as Myanmar becomes more developed and able to access financial markets.

Table 2. Myanmar: External Public Debt FY2015/16

	In millions US$	In % of total public debt	In % of GDP
Total debt	**9,528.8**	**38.4**	**15.9**
Multilateral	**1,386.1**	**5.6**	**2.3**
Asian Development Bank	***524.1***	***2.1***	***0.9***
World Bank/IDA	***836.8***	***3.4***	***1.4***
Other	***25.2***	***0.1***	***0.0***
Offical Bilateral	**4,006.8**	**16.2**	**6.7**
Paris Club	***2,133.0***	***8.6***	***3.6***
of which, Japan	1,983.9	8.0	3.3
Non Paris Club	***1,873.7***	***7.6***	***3.1***
of which, China	1,524.7	6.1	2.5
Financial Institutions	**4,060.6**	**16.4**	**6.8**
Paris Club	***1,273.0***	***5.1***	***2.1***
Non Paris Club	***2,787.6***	***11.2***	***4.7***
of which, China	2,787.6	11.2	4.7
Other	**85.9**	**0.3**	**0.1**

Sources: Myanmar authorities; and IMF staff estimates.

DEBT SUSTAINABILITY ANALYSIS

4. Total external public and publicly guaranteed debt increased in 2015 for the first time in 10 years, to 15.9 percent of GDP from 13.9 percent a year earlier. Total public debt also increased in 2015 to 34.1 percent of GDP from 29.2 percent in 2014, largely as a result of a large increase in the central bank financing of the widened fiscal deficit, which has raised concerns about the inflationary impact of budget financing and underscores the importance of increasing market financing.

5. The new government has taken steps to ensure continued debt sustainability by passing a new Public Debt Management Law (PDML) and starting preparation of a comprehensive Medium-Term Fiscal Framework. The government continued its efforts in shifting from short-term towards medium-term financing through issuance of Treasury Bonds. Additionally, for 2016/17 the authorities set a cap of 40 percent for CBM financing of the total public deficit, with gradual declines thereafter. These are steps in the right direction and should help to keep public debt on a sustainable path in the future. Nevertheless, a more ambitious pace of phase out of CBM financing, replaced by domestic debt issuance, would help more forcefully address inflationary pressures.

6. Public and publically guaranteed external debt is projected to remain below the indicative thresholds throughout the projection period. Debt indicators also remain below the various thresholds under the baseline assumptions and the standard and alternative stress tests.[5] Nevertheless, some indicators, such as the PV of debt-to-GDP and PV of debt-to-export ratios, are relatively sensitive to the exports shock, the depreciation shock, and the combination of shocks. For example, the exports shock (due to further drop in gas prices) causes a significant rise in the debt-to-exports ratio, as shown in Figure 1a, chart c. Given Myanmar's large current account deficit and vulnerabilities to exogenous shocks, such as commodity price volatility and natural disasters, the authorities need to pursue prudent macroeconomic policies and build up policy buffers, particularly foreign reserves. Over the long run, economic diversification will be important, with improvements in productivity and export competitiveness in manufacturing and agriculture. Building on the new Investment Law, further efforts will be needed to attract FDI to fund investment projects.

7. Total public sector debt will also remain below the indicative benchmark under the baseline scenario, but it is vulnerable to shocks. In the baseline, the PV of total public debt as a percentage of GDP stays below the indicative benchmark throughout the projection period. However, the standard stress tests show that the PV of debt-to-GDP ratio could breach the benchmark toward the end of the projection period if shocks result in a significant decline in GDP growth and if fiscal slippages result in a failure in gradual fiscal consolidation.[6]

8. Myanmar is prone to large scale weather related natural disasters and is one of the most vulnerable countries among developing Asian countries (see selected issues paper on "Macro-Fiscal Risks: The Challenge of Climate Related Disasters"). In light of this risk, an alternative stress test is conducted, a scenario whereby a severe natural disaster of a magnitude similar to the impact of Cyclone Nargis in 2008 is assumed to happen in fiscal year 2017/2018 (almost ten years after).[7] This stress test leads the PV of debt-to-GDP ratio to breach the benchmark threshold in the long run after 2029/2030. To manage these risks, Myanmar needs to continue with structural reforms to improve its growth potential and resilience. A continued commitment to prudent fiscal policy is essential.

[4] The Asian Development Bank is expected to approve a total of US$3 billion in sovereign and non-sovereign loans over 2013–2018. The World Bank is expected to commit about US$1 billion in 2016–2018. In November 2015, the Prime Minister of Japan announced that Japan will commit an ¥800 billion (US$7.7 billion) package, which will comprise funding from both the public (through Japan International Cooperation Agency (JICA)) and private sectors to be spread over five years.

[5] The typical historical scenario is not shown in this analysis. In the case of Myanmar, the historical scenario would imply an unlikely return to pre-reform policies: low noninterest current account deficits (consistent with binding international sanctions) and sustained real exchange rate pressures.

[6] For the PV of total public debt to GDP ratio, the most extreme shock is the growth shock which causes a breach in the indicative benchmark in 2025/26, while fixing the primary balance leads to a breach in 2029/30.

[7] The alternative cyclone scenario is based on the following assumptions: projected GDP growth is reduced by two-thirds in 2017 and 2018; the nominal exchange rate depreciates by 35 percent in 2017-2019; inflation is expected to double in 2017 and 2018; following historical experience both government revenue and expenditures are adjusted downward; financial aid and concessional finance is expected to increase.

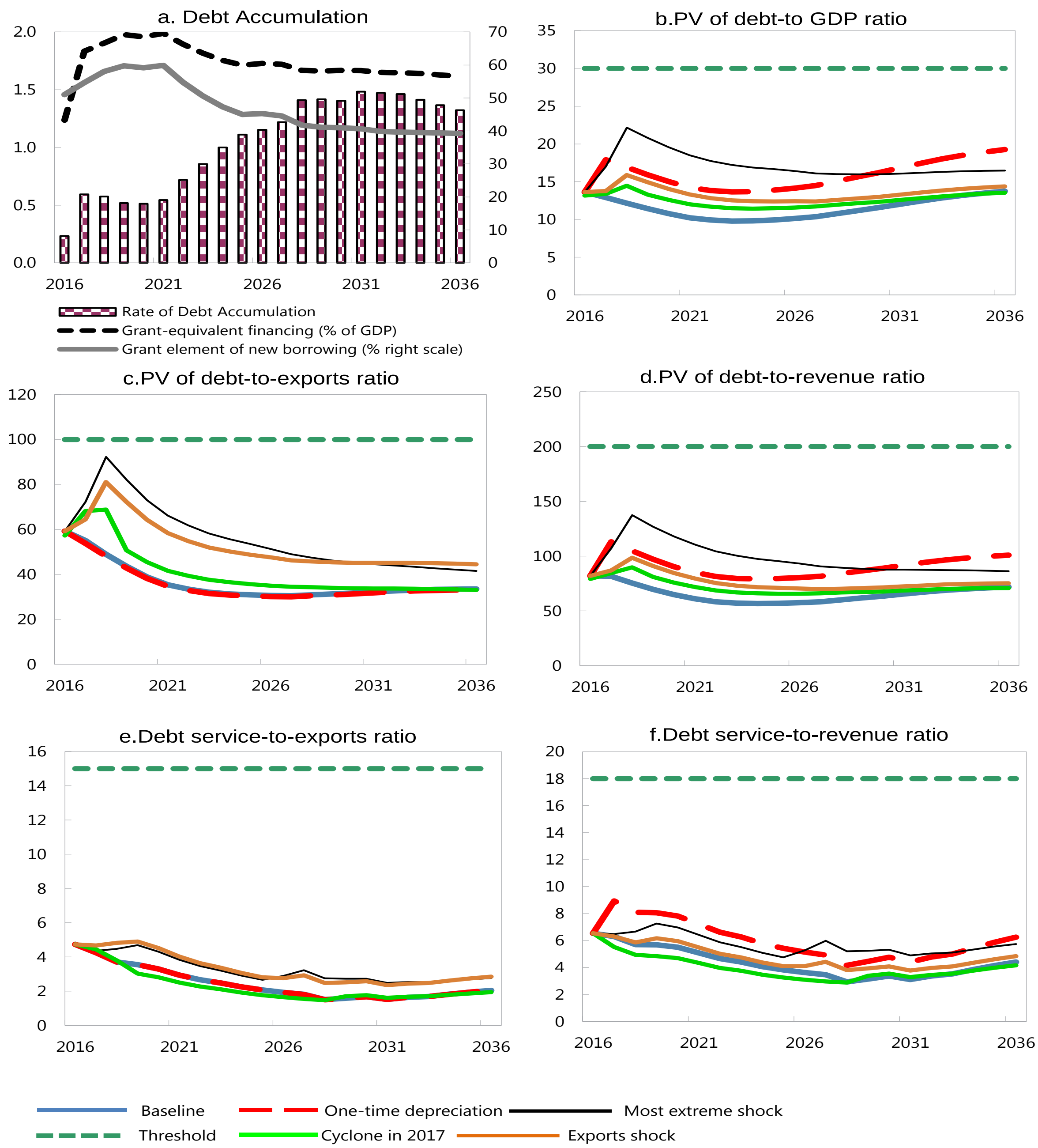
STAFF ASSESSMENT

9. Myanmar is assessed to remain at low risk of debt distress. Public and publicly guaranteed (PPG) external debt is generally resilient to shocks under standard and alternative stress tests, although it is sensitive to export and exchange rate depreciation shocks. Continuation of export-market and exchange rate risks should be monitored carefully, given high uncertainty over growth in China and commodity price outlook. Downside realization of these risks, especially if combined with other risks, could shift risk ratings higher in a relatively short period of time. Total public debt is projected to stay below the benchmark, but it is vulnerable to growth shocks and fiscal slippages. These findings suggest that Myanmar needs to strengthen its economic resilience, including through broadening its production and export base and building up policy buffers such as higher foreign reserves. Moreover, given the sharp rise in the fiscal deficit in 2015/16 and potential shocks including natural disasters, gradual fiscal consolidation and a long-term commitment to fiscal prudence are critical to preserving debt sustainability.

Authorities' Views

10. The authorities broadly agreed with these conclusions and the analysis. They planned to take a conservative approach to external borrowing that balances development needs with long-term fiscal sustainability. They shared staff's view that nonconcessional external borrowing should be used only to finance high-return projects in priority sectors, at levels that are in line with the new PDML and consistent with low risk of debt distress. The authorities were committed to improving the medium-term fiscal framework, including by developing a medium-term debt management strategy.

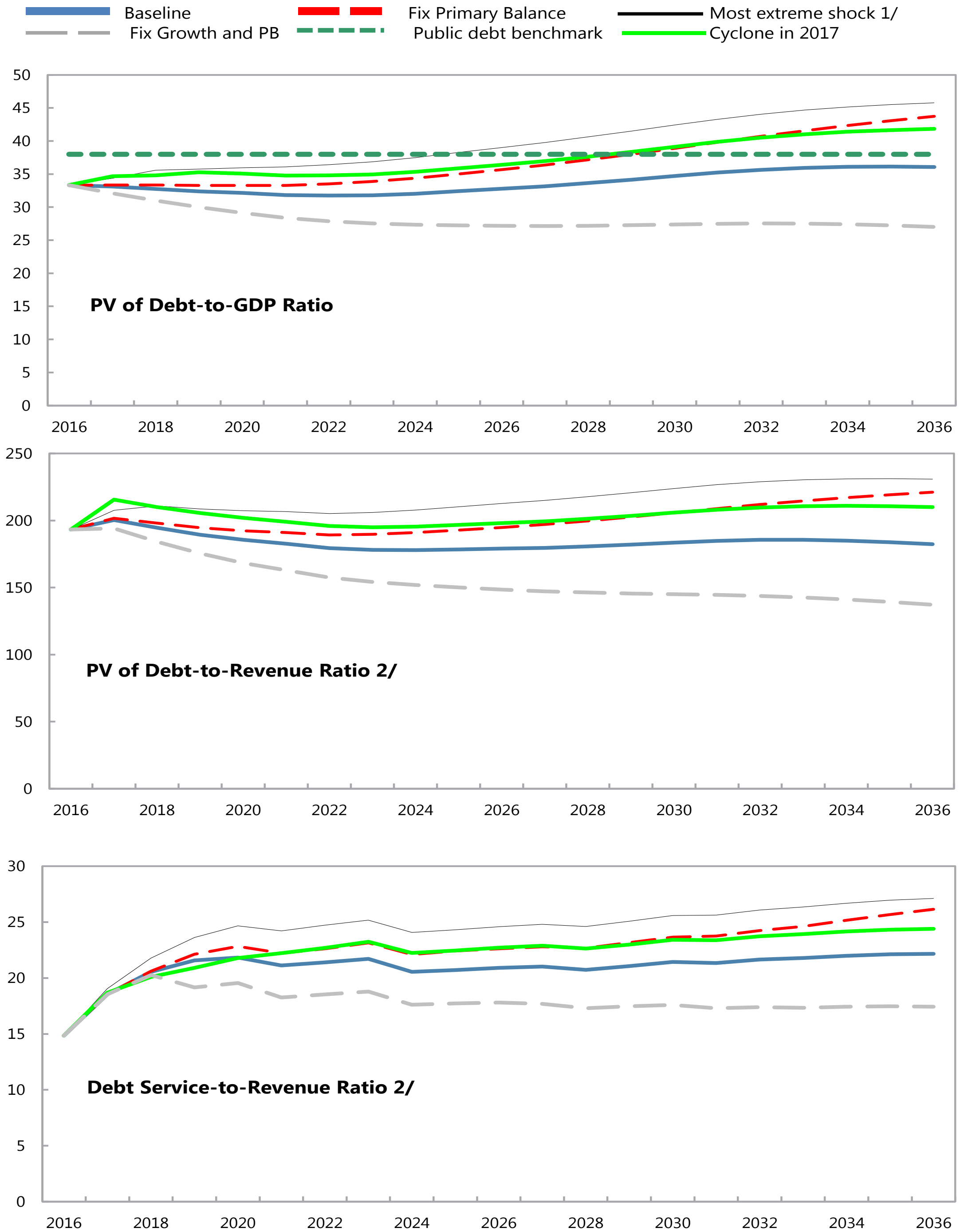
Figure 1a. Myanmar: Indicators of Public and Publicly Guaranteed External Debt Under Alternatives Scenarios, 2016/17–2036/37 1/



Sources: Country authorities; and staff estimates and projections.

1/ In Panel bcd, the most extreme shock is the combination shock; in panel e, the most extreme shock is the export shock; and, in panel f, the most extreme shock is one-time depreciation shock.
2/ The combination shock assumes real GDP, exports, US dollar deflator of GDP, and non-debt creating flows all at their historical averages over 2005-2015 minus one standard deviation.

Figure 1b. Myanmar: Indicators of Public Debt Under Alternative Scenarios, 2016/17–2036/37 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the growth shock.
2/ Revenues are defined inclusive of grants.

Table 3a. Myanmar: External Debt Sustainability Framework, Baseline Scenario, 2013/14-2036/37 1/

(In percent of GDP, unless otherwise indicated)

	Actual			Historical 6/	Standard 6/	Projections									
				Average	Deviation							2016-2021			2022-2036
	2013	2014	2015			2016	2017	2018	2019	2020	2021	Average	2026	2036	Average
External debt (nominal) 1/	**17.0**	**13.9**	**15.9**			**15.4**	**15.5**	**15.4**	**15.4**	**15.4**	**15.5**		**16.8**	**21.4**	
of which: public and publicly guaranteed (PPG)	17.0	13.9	15.9			15.4	15.5	15.4	15.4	15.4	15.5		16.8	21.4	
Change in external debt	-6.6	-3.1	2.0			-0.5	0.0	0.0	0.0	0.0	0.1		0.4	0.3	
Identified net debt-creating flows	0.4	-5.2	-0.5			-0.3	-0.9	-1.0	-1.3	-1.6	-2.0		-2.8	-2.8	
Non-interest current account deficit	**4.5**	**2.7**	**4.5**	**1.3**	**3.6**	**6.2**	**6.3**	**6.3**	**6.3**	**6.3**	**6.2**	6.3	**5.8**	**4.7**	5.5
Deficit in balance of goods and services	4.8	4.4	7.5			8.4	8.6	8.6	8.5	8.4	8.1		7.2	5.3	
Exports	21.8	24.6	25.0			23.0	23.4	24.8	26.2	27.7	28.9		33.1	41.0	
Imports	26.6	29.0	32.5			31.4	32.1	33.4	34.7	36.1	37.0		40.3	46.3	
Net current transfers (negative = inflow)	-2.3	-3.7	-4.2	-1.6	1.3	-4.0	-4.1	-4.1	-4.1	-4.1	-4.0		-3.8	-3.3	-3.6
of which: official	-0.3	-0.5	-0.6			-0.6	-0.7	-0.7	-0.7	-0.7	-0.7		-0.7	-0.7	
Other current account flows (negative = net inflow)	2.1	1.9	1.3			1.8	1.8	1.9	1.9	2.0	2.0		2.3	2.7	
Net FDI (negative = inflow)	**-4.4**	**-7.1**	**-7.1**	**-4.2**	**1.7**	**-5.9**	**-6.5**	**-6.7**	**-6.9**	**-7.1**	**-7.3**		**-7.7**	**-6.7**	-7.4
Endogenous debt dynamics 2/	**0.2**	**-0.8**	**2.0**			**-0.5**	**-0.7**	**-0.7**	**-0.7**	**-0.8**	**-0.8**		**-0.8**	**-0.8**	
Contribution from nominal interest rate	0.4	0.6	0.6			0.4	0.4	0.3	0.3	0.3	0.2		0.2	0.3	
Contribution from real GDP growth	-2.0	-1.2	-1.1			-0.9	-1.1	-1.1	-1.0	-1.0	-1.0		-1.1	-1.1	
Contribution from price and exchange rate changes	1.8	-0.2	2.5			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-7.0**	**2.1**	**2.5**			**-0.2**	**1.0**	**1.0**	**1.3**	**1.6**	**2.0**		**3.2**	**3.1**	
of which: exceptional financing	-8.0	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/	...	...	14.4			13.6	12.9	12.2	11.4	10.8	10.2		10.1	13.7	
In percent of exports	...	...	57.5			59.2	55.1	49.0	43.6	38.9	35.4		30.6	33.5	
PV of PPG external debt	**...**	**...**	**14.4**			**13.6**	**12.9**	**12.2**	**11.4**	**10.8**	**10.2**		**10.1**	**13.7**	
In percent of exports	**...**	**...**	**57.5**			**59.2**	**55.1**	**49.0**	**43.6**	**38.9**	**35.4**		**30.6**	**33.5**	
In percent of government revenues	**...**	**...**	**79.1**			**81.9**	**81.6**	**75.4**	**69.7**	**64.8**	**61.1**		**57.5**	**71.9**	
Debt service-to-exports ratio (in percent)	**4.9**	**5.0**	**4.7**			**4.7**	**4.3**	**3.7**	**3.6**	**3.3**	**2.9**		**1.9**	**2.1**	
PPG debt service-to-exports ratio (in percent)	**3.2**	**3.8**	**4.7**			**4.7**	**4.3**	**3.7**	**3.6**	**3.3**	**2.9**		**1.9**	**2.1**	
PPG debt service-to-revenue ratio (in percent)	**3.6**	**4.3**	**6.5**			**6.5**	**6.3**	**5.7**	**5.7**	**5.5**	**5.1**		**3.6**	**4.4**	
Total gross financing need (Billions of U.S. dollars)	0.9	-2.0	-0.7			0.9	0.6	0.5	0.3	0.1	-0.3		-2.3	-4.9	
Non-interest current account deficit that stabilizes debt ratio	11.1	5.7	2.5			6.7	6.3	6.4	6.3	6.3	6.1		5.4	4.4	
Key macroeconomic assumptions															
Real GDP growth (in percent)	8.4	8.0	7.3	7.6	3.0	6.3	7.5	7.6	7.5	7.5	7.5	7.3	7.0	5.5	6.6
GDP deflator in US dollar terms (change in percent)	-7.2	1.0	-15.4	8.9	17.8	4.8	1.5	2.8	3.1	3.2	3.0	3.1	2.5	2.3	2.4
Effective interest rate (percent) 5/	1.6	3.8	4.1	2.3	1.2	2.6	2.6	2.4	2.1	1.9	1.7	2.2	1.4	1.5	1.4
Growth of exports of G&S (US dollar terms, in percent)	13.5	22.9	-7.7	15.4	14.1	2.4	11.3	17.0	17.1	17.3	15.6	13.4	12.7	9.7	11.7
Growth of imports of G&S (US dollar terms, in percent)	15.8	19.0	1.6	24.1	20.8	7.8	11.3	15.2	15.1	15.3	13.7	13.1	11.5	9.0	10.8
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	51.0	54.7	58.0	59.7	59.1	59.9	57.1	45.3	39.3	43.3
Government revenues (excluding grants, in percent of GDP)	19.8	21.6	18.2			16.6	15.8	16.1	16.4	16.6	16.7		17.6	19.1	18.1
Aid flows (in Billions of US dollars) 7/	0.4	0.4	0.6			1.0	1.8	2.1	2.5	2.7	3.0		3.6	7.5	
of which: Grants	0.2	0.2	0.4			0.4	0.5	0.6	0.6	0.7	0.8		1.2	2.7	
of which: Concessional loans	0.3	0.2	0.3			0.6	1.3	1.5	1.8	2.0	2.2		2.3	4.8	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			1.2	1.8	1.9	2.0	2.0	2.0		1.7	1.6	1.7
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			67.5	66.1	68.6	69.7	69.3	69.7		58.2	52.7	56.4
Memorandum items:															
Nominal GDP (Billions of US dollars)	60.1	65.6	59.5			66.3	72.4	80.0	88.7	98.4	109.0		175.7	403.7	
Nominal dollar GDP growth	0.7	9.0	-9.2			11.4	9.1	10.6	10.8	10.9	10.8	10.6	9.7	7.9	9.1
PV of PPG external debt (in Billions of US dollars)			8.6			8.7	9.1	9.5	10.0	10.4	10.9		17.5	54.9	
(PVt-PVt-1)/GDPt-1 (in percent)						0.2	0.6	0.6	0.5	0.5	0.5	0.5	1.2	1.3	1.3
Gross workers' remittances (Billions of US dollars)	1.2	2.1	2.1			2.3	2.5	2.7	3.0	3.3	3.6		5.4	10.5	
PV of PPG external debt (in percent of GDP + remittances)	...	...	13.9			13.2	12.5	11.8	11.0	10.4	9.9		9.8	13.4	
PV of PPG external debt (in percent of exports + remittances)	...	...	50.3			51.6	48.0	43.0	38.6	34.7	31.7		28.0	31.5	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	4.2			4.1	3.7	3.3	3.1	2.9	2.6		1.8	1.9	

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/ 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. Myanmar: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016/17-2036/37

(In percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
PV of debt-to GDP ratio								
Baseline	14	13	12	11	11	10	**10**	14
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	14	11	8	6	4	3	**2**	4
A2. New public sector loans on less favorable terms in 2016-2036 2	14	13	13	13	13	13	**15**	22
A3. Alternative Scenario : Cyclone in 2017	13	13	14	13	13	12	**12**	14
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	14	13	13	12	11	11	**11**	14
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	14	14	16	15	14	13	**12**	14
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	14	14	15	14	13	13	**13**	17
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	14	17	20	19	18	17	**15**	15
B5. Combination of B1-B4 using one-half standard deviation shocks	14	17	22	21	20	18	**16**	16
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	14	18	17	16	15	14	**14**	19
PV of debt-to-exports ratio								
Baseline	59	55	49	44	39	35	**31**	34
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	59	45	32	23	15	11	**5**	9
A2. New public sector loans on less favorable terms in 2016-2036 2	59	56	53	49	46	44	**45**	53
A3. Alternative Scenario : Cyclone in 2017	57	68	69	51	45	42	**35**	33
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	59	54	48	43	38	35	**30**	33
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	59	64	81	72	64	58	**48**	45
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	59	54	48	43	38	35	**30**	33
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	59	72	82	73	65	59	**46**	37
B5. Combination of B1-B4 using one-half standard deviation shocks	59	72	92	82	73	66	**51**	42
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	59	54	48	43	38	35	**30**	33
PV of debt-to-revenue ratio								
Baseline	82	82	75	70	65	61	**57**	72
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	82	67	50	36	26	18	**10**	19
A2. New public sector loans on less favorable terms in 2016-2036 2	82	83	81	79	77	76	**84**	114
A3. Alternative Scenario : Cyclone in 2017	79	85	90	81	76	72	**66**	71
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	82	82	78	72	67	63	**60**	75
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	82	87	98	91	85	80	**70**	75
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	82	89	93	86	80	75	**71**	89
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	82	107	126	117	108	102	**86**	80
B5. Combination of B1-B4 using one-half standard deviation shocks	82	107	137	127	118	111	**93**	86
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	82	113	105	97	90	85	**80**	101

Table 3b. Myanmar: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016/17-2036/37 (Concluded)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
Debt service-to-exports ratio								
Baseline	5	4	4	4	3	3	**2**	2
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	5	4	3	3	2	2	**1**	0
A2. New public sector loans on less favorable terms in 2016-2036 2	5	4	4	4	4	3	**3**	3
A3. Alternative Scenario : Cyclone in 2017	5	4	4	3	3	3	**2**	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	5	4	4	4	3	3	**2**	2
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	5	5	5	5	5	4	**3**	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	5	4	4	4	3	3	**2**	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	5	4	4	4	4	3	**3**	2
B5. Combination of B1-B4 using one-half standard deviation shocks	5	4	4	5	4	4	**3**	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	5	4	4	4	3	3	**2**	2
Debt service-to-revenue ratio								
Baseline	7	6	6	6	6	5	**4**	4
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	7	6	5	4	4	3	**1**	1
A2. New public sector loans on less favorable terms in 2016-2036 2	7	6	6	6	6	6	**5**	7
A3. Alternative Scenario : Cyclone in 2017	7	6	5	5	5	4	**3**	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	7	6	6	6	6	5	**4**	5
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	7	6	6	6	6	5	**4**	5
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	7	7	7	7	7	6	**5**	6
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	7	6	6	7	6	6	**5**	5
B5. Combination of B1-B4 using one-half standard deviation shocks	7	6	7	7	7	6	**5**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	7	9	8	8	8	7	**5**	6
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	45	45	45	45	45	45	**45**	45

Sources: Country authorities; and staff estimates and projections.

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

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.

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 3c. Myanmar: Public Sector Debt Sustainability Framework, Baseline Scenario, 2013/14-2036/37

(In percent of GDP, unless otherwise indicated)

	Actual			Average 5/	Standard Deviation 5/	Estimate	Projections								
	2013	2014	2015			2016	2017	2018	2019	2020	2021	2016-21 Average	2026	2036	2022-36 Average
Public sector debt 1/	32.3	29.2	34.1			35.1	35.7	36.0	36.4	36.8	37.1		39.5	43.7	
of which: foreign-currency denominated	17.0	13.9	15.9			15.4	15.5	15.4	15.4	15.4	15.5		16.8	21.4	
Change in public sector debt	-7.8	-3.1	4.9			1.1	0.5	0.3	0.4	0.4	0.3		0.6	0.0	
Identified debt-creating flows	-1.6	-1.8	3.1			1.2	0.5	0.2	0.3	0.3	0.2		0.3	-0.1	
Primary deficit	-0.3	-0.9	2.4	1.2	1.9	2.9	2.6	2.4	2.4	2.4	2.3	2.5	2.2	1.2	1.9
Revenue and grants	20.1	21.9	18.8			17.2	16.5	16.8	17.1	17.3	17.4	17.1	18.3	19.8	18.8
of which: grants	0.3	0.3	0.6			0.6	0.7	0.7	0.7	0.7	0.7		0.7	0.7	
Primary (noninterest) expenditure	19.8	21.0	21.2			20.2	19.2	19.2	19.5	19.7	19.7		20.5	21.0	
Automatic debt dynamics	-1.0	-0.7	1.0			-1.7	-2.2	-2.1	-2.1	-2.1	-2.1		-1.8	-1.3	
Contribution from interest rate/growth differential	-2.8	-1.6	-1.2			-1.9	-2.1	-1.9	-1.9	-2.0	-2.0		-1.7	-1.3	
of which: contribution from average real interest rate	0.3	0.8	0.8			0.2	0.4	0.6	0.6	0.6	0.6		0.8	1.0	
of which: contribution from real GDP growth	-3.1	-2.4	-2.0			-2.0	-2.5	-2.5	-2.5	-2.5	-2.6		-2.6	-2.3	
Contribution from real exchange rate depreciation	1.8	0.9	2.2			0.1	-0.1	-0.2	-0.2	-0.2	-0.2		...	...	
Other identified debt-creating flows	-0.3	-0.1	-0.3			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Privatization receipts (negative)	-0.3	-0.1	-0.3			0.0	0.0	0.0	0.0	0.0	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	
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 (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	
Residual, including asset changes	-6.2	-1.3	1.8			-0.1	0.1	0.1	0.1	0.1	0.1		0.2	0.1	
Other Sustainability Indicators															
PV of public sector debt	...	...	32.5			33.3	33.1	32.7	32.4	32.1	31.8	32.6	32.8	36.1	34.4
of which: foreign-currency denominated	...	...	14.4			13.6	12.9	12.2	11.4	10.8	10.2		10.1	13.7	
of which: external	...	...	14.4			13.6	12.9	12.2	11.4	10.8	10.2	11.8	10.1	13.7	11.4
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	2.0	1.4	5.1			5.5	5.7	5.8	6.1	6.2	6.0		6.0	5.6	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	172.9			193.3	200.4	194.6	189.5	185.7	182.7		179.0	182.4	
PV of public sector debt-to-revenue ratio (in percent)	...	...	178.9			200.4	209.2	203.1	197.5	193.5	190.4		186.2	188.9	
of which: external 3/	...	...	79.1			81.9	81.6	75.4	69.7	64.8	61.1		57.5	71.9	
Debt service-to-revenue and grants ratio (in percent) 4/	9.9	10.1	14.1			14.9	18.6	20.6	21.6	21.8	21.1		20.9	22.2	
Debt service-to-revenue ratio (in percent) 4/	10.0	10.3	14.5			15.4	19.4	21.4	22.5	22.8	22.0		21.7	22.9	
Primary deficit that stabilizes the debt-to-GDP ratio	7.5	2.2	-2.5			1.9	2.1	2.0	2.0	2.0	2.0		1.6	1.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	8.4	8.0	7.3	7.6	3.0	6.3	7.5	7.6	7.5	7.5	7.5	7.3	7.0	5.5	6.6
Average nominal interest rate on forex debt (in percent)	1.6	3.9	4.1	2.4	1.2	2.6	2.6	2.4	2.1	1.9	1.7	2.2	1.4	1.5	1.4
Average real interest rate on domestic debt (in percent)	4.2	5.1	4.0	-2.5	7.5	0.0	1.6	2.8	2.9	3.0	3.1	2.2	4.3	5.2	4.6
Real exchange rate depreciation (in percent, + indicates depreciation)	8.5	5.4	16.8	-4.3	15.8	0.8	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.4	4.2	3.9	9.8	7.5	7.9	7.5	7.3	7.0	6.9	6.7	7.2	5.4	4.5	5.1
Growth of real primary spending (deflated by GDP deflator, in percent)	27.9	14.6	8.3	5.2	9.4	1.2	2.1	7.7	9.2	8.7	7.6	6.1	7.3	5.7	7.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	51.0	54.7	58.0	59.7	59.1	59.9	57.1	45.3	39.3	...

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

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 3d. Myanmar: Sensitivity Analysis for Key Indicators of Public Debt 2016/17-2036/37

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt-to-GDP Ratio								
Baseline	33	33	33	32	32	32	33	36
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	33	32	31	30	29	28	27	27
A2. Primary balance is unchanged from 2016	33	33	33	33	33	33	36	44
A3. Permanently lower GDP growth 1/	33	33	33	33	34	34	38	52
A4. Alternative Scenario : Cyclone in 2017	33	35	35	35	35	35	36	42
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	33	34	36	36	36	36	39	46
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	33	33	33	33	33	32	33	36
B3. Combination of B1-B2 using one half standard deviation shocks	33	33	33	33	33	33	35	41
B4. One-time 30 percent real depreciation in 2017	33	39	37	36	35	34	33	35
B5. 10 percent of GDP increase in other debt-creating flows in 2017	33	40	39	38	37	36	36	38
PV of Debt-to-Revenue Ratio 2/								
Baseline	193	200	195	189	186	183	179	182
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	193	194	184	175	168	163	149	137
A2. Primary balance is unchanged from 2016	193	202	198	195	192	191	195	221
A3. Permanently lower GDP growth 1/	193	202	198	195	194	193	207	263
A4. Alternative Scenario : Cyclone in 2017	193	216	210	206	202	199	198	210
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	193	208	211	209	207	207	213	231
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	193	202	199	193	189	186	181	183
B3. Combination of B1-B2 using one half standard deviation shocks	193	201	196	193	192	190	193	205
B4. One-time 30 percent real depreciation in 2017	193	233	221	211	202	195	180	179
B5. 10 percent of GDP increase in other debt-creating flows in 2017	193	242	232	219	213	207	196	191
Debt Service-to-Revenue Ratio 2/								
Baseline	15	19	21	22	22	21	21	22
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	15	19	20	19	20	18	18	17
A2. Primary balance is unchanged from 2016	15	19	21	22	23	22	23	26
A3. Permanently lower GDP growth 1/	15	19	21	22	23	22	24	31
A4. Alternative Scenario : Cyclone in 2017	15	19	20	21	22	22	23	24
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	15	19	22	24	25	24	25	27
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	15	19	21	22	23	21	21	22
B3. Combination of B1-B2 using one half standard deviation shocks	15	19	21	21	22	22	23	24
B4. One-time 30 percent real depreciation in 2017	15	20	23	25	25	24	23	25
B5. 10 percent of GDP increase in other debt-creating flows in 2017	15	19	22	36	24	25	21	23

Sources: Country authorities; and 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.

Statement by IMF Staff Representative on Myanmar
January 25, 2017

The information below has become available following the issuance of the staff report (SM/17/1). It does not alter the thrust of the staff appraisal.

1. **In December 2016, the parliament passed a supplementary budget for FY 2016/17 that would increase the overall fiscal deficit by 0.7 percent of GDP, but full budget implementation is unlikely** (Text Table 1). The supplementary budget would increase the overall fiscal deficit to 5.3 percent of GDP from 4.6 percent for FY 2016/17 if fully implemented, making the fiscal policy stance more expansionary than envisaged. However, full budget implementation is considered unlikely, given historical under-execution of budgeted expenditures (by 2 percent of GDP on average for the past 5 years). Staff therefore does not expect the supplementary budget to have a major impact on the baseline assessment of the Myanmar economy.

2. **The additional spending is mostly in the areas of infrastructure (including transportation), social services, and security**. Detailed information on the supplementary budget is not yet available, but according to the available data the supplementary budget included 1.5 percent of GDP of spending, offset by 0.5 percent of under-executed spending for a net spending increase of 1.0 percent of GDP. Budgeted revenues were increased by 0.3 percent of GDP, leading to an additional financing need of 0.7 percent of GDP (0.5 percent for domestic financing and 0.2 for external financing).

Text Table 1. Myanmar—Supplementary Budget for FY 2016/17

	Net Changes Relative to the Amended Budget	
	(in billions of kyat)	(in percent of GDP
Supplementary revenue	**243**	**0.29**
Tax revenue	293	0.35
Non tax revenue	-177	-0.21
Grants	127	0.15
Supplementary expenditure	**839**	**1.00**
Additional current expenditure	743	0.89
Underexecuted current expenditure	-445	-0.53
Additional capital expenditure	541	0.65
Supplementary overall balance	**-596**	**-0.71**
Supplementary financing	**596**	**0.71**
Domestic financing	443	0.53
Foreign financing	152	0.18
Memo items:		
Supplementary expenditures 1/		
Infrastructure and transportation	188	0.23
Social	119	0.14
Security	86	0.10
Other	890	1.07

Source: Preliminary data provided by the Myanmar authorities.

1/ Staff's calculations. Expenditure classifications may overlap.