EXECUTIVE BOARD MEETING

SM/18/290
Correction 1

January 18, 2019

To: Members of the Executive Board

From: The Secretary

Subject: **Former Yugoslav Republic of Macedonia—Staff Report for the 2018 Article IV Consultation**

Board Action:	The attached corrections to SM/18/290 (12/18/18) have been provided by the staff:
Evident Ambiguity	**Page 7**
Factual Errors Not Affecting the Presentation of Staff's Analysis or Views	**Pages 22, 28, 30, 31, 32, 48, 57, 58, 59**
Typographical Errors	**Secretary's cover note of transmittal**
Questions:	Ms. Rahman, EUR (ext. 36649) Mr. Poulain, EUR (ext. 39444) Mr. El Ashram, EUR (ext. 36580) Mr. Hukka, FIN (ext. 39591)

EXECUTIVE BOARD MEETING

SM/18/290
Corrected: 1/18/19

December 18, 2018

To: Members of the Executive Board

From: The Secretary

Subject: **Former Yugoslav Republic of Macedonia—Staff Report for the 2018 Article IV Consultation**

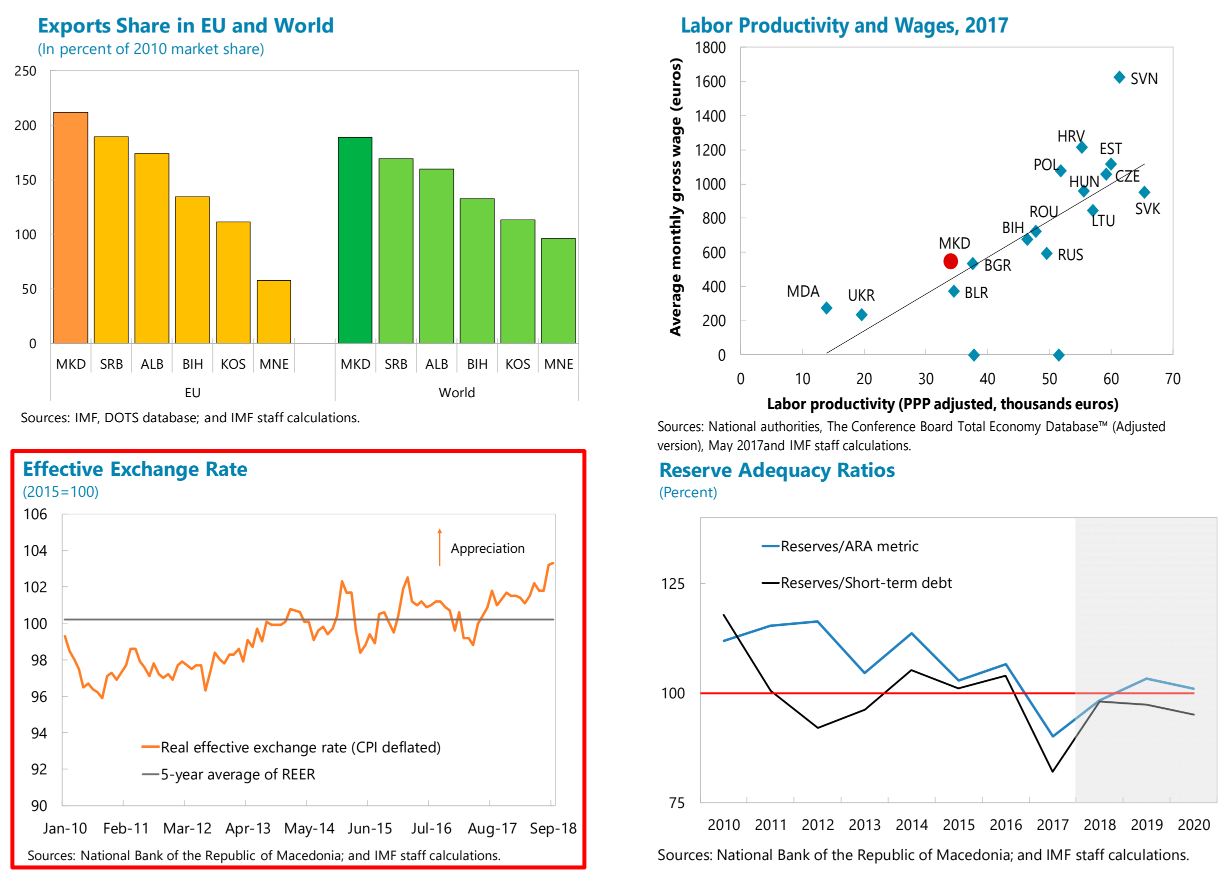
Board Action:	Executive Directors' **consideration** (Formal)
Tentative Board Date:	**To be announced**
Publication:	Yes*
Questions:	Ms. Rahman, EUR (ext. 36649) Mr~~s~~. Poulain, EUR (ext. 39444) Mr. El Ashram, EUR (ext. 36580) Mr~~s~~. Hukka, FIN (ext. 39591)
Document Transmittal in the Absence of an Objection and in accordance with Board policy:	Wednesday, December 19, 2018—European Central Bank Friday, December 28, 2018—WTO After Board Consideration—European Bank for Reconstruction and Development

***Unless an objection from the authorities is received prior to the conclusion of the Board's consideration, the document will be published.**

The monetary policy easing, along with higher demand from households on the back of an improving labor market, is supporting private sector credit growth (Tables 4 and 5).

7. FYR Macedonia's external position is assessed to be broadly in line with its medium-term fundamentals and desirable policies (Table 6). All three EBA-lite approaches suggest that the real effective exchange rate is close to its equilibrium value. The gap between the cyclically-adjusted current account balance and its norm is estimated to be about 0.9 percent of GDP, largely explained by the temporary, strong slowdown in investment. The expected rebound in investment (see paragraph 8) would bring the current account balance closer to its norm without a need for the real exchange rate to adjust. A competitive external position is also demonstrated by rising export shares in key markets and wages that are in line with productivity. Reserve coverage improved following the Eurobond issuance and is expected to reach 98 percent of both short-term debt and the IMF ARA metric in 2018 (Figure 3). Steady foreign direct investment and portfolio flows are projected to provide a broadly adequate reserve coverage in the medium term.

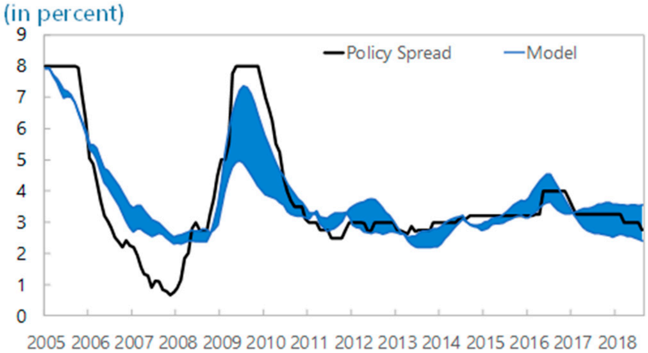
Figure 3. FYR Macedonia—External Sector Developments



C. Ensuring Monetary and Financial Stability

29. Monetary policy has been appropriately accommodative. FYR Macedonia has a de-facto stabilized exchange rate arrangement, but limited integration with the global financial system provides the NBRM with a degree of short-term autonomy. The real interest rate is considerably below its long-term average and the policy rate spread with the ECB is in the low range of staff's model-based policy reaction function. Staff considers the current accommodative monetary stance as appropriate given the negative output gap, benign inflation outlook, and stable foreign exchange market. If reserves accumulation falls below the baseline projections or global financial conditions tighten, the NBRM should stand ready to tighten.

Policy Interest rate spread - Actual vs. Modeled 1/
(in percent)



Sources: NBRM, SSO, Haver, and IMF Staff calculations
1/ Policy rate spread with the ECB modeled as a function of its own lagged value and the reserve gap, credit growth, domestic and euro area inflation, deposit euroization and EMBI.

30. Risks to the financial sector are muted but high structural vulnerabilities warrant close monitoring. The banking sector is well-capitalized and liquid, with banks comfortably meeting Pillar I capital adequacy requirements and maintaining sound aggregate liquidity buffers (Table 8, Figure 11). While credit risks are contained due to high provisioning, the recently conducted Financial Sector Assessment Program (FSAP) finds high structural vulnerabilities—including indirect credits risks due to large FX exposures to potentially unhedged borrowers and high dependence on adjustable- and variable-rate loans, as well as high corporate portfolio concentrations. FSAP stress tests estimate that bank recapitalization costs under extreme macro-financial solvency shocks would be limited, but these may expand in case of second-round effects from sizable bank losses. In addition, with subsidiaries of the euro area banks accounting for a large share of assets, there are risks of negative spillovers (including from deleveraging) in the case of bank distress in the euro area.

31. As recommended by the recent FSAP mission, staff highlighted the need for following measures to bolster the financial stability framework (text table).

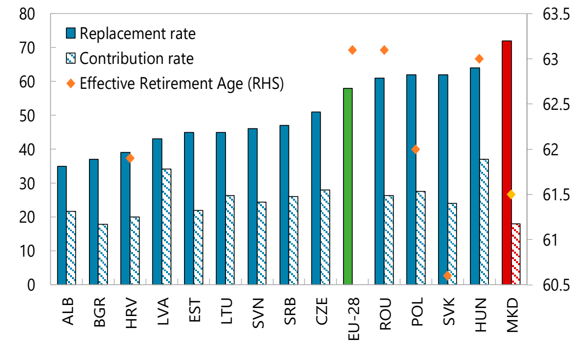
- **Macroprudential policy framework.** The NBRM has been successfully using macroprudential policies to curb vulnerabilities, but the policy framework should be further strengthened. The NBRM should be granted a legal macroprudential mandate, including clear objectives that can guide the exercise of macroprudential powers, and further develop its framework for early identification of systemic risks.

- **Supervision and regulation.** Further steps are needed to safeguard the operational independence of the NBRM, intensify full-scope inspections for domestic systemically important banks, and formalize the framework for corrective action and early intervention. Weaknesses in

Box 1. Proposed Pension Reforms

FYR Macedonia's pension system faces considerable sustainability and social equity risks. The system's deficit is projected to increase from 4½ percent of GDP at end-2017 to a peak above 6 percent of GDP by early 2030s. Generous first pillar (pay-as-you-go) pensions, and a series of ad hoc benefit increases have increased pension expenditures far above what is expected for FYR Macedonia's current comparatively young demographics. At the same time, technical registration errors originating from the time the fully-funded second-pillar was established in 2006 resulted in unpaid obligations to the second pillar, while the lower accrual rates awarded to participants in the dual-pillar system have proven insufficient to ensure equitable pensions for those now entering or nearing retirement. More generally, the wide disparity in accrual rates between participants in the first pillar only (older generations not mandated to move to the dual-pillar system) and those in the dual-pillar system gives rise to inter-generational imbalances in pension benefits expected to last well through the next decade.[1] Without decisive reform actions, the pension system would impose an increasing and protracted burden on FYR Macedonia's fiscal position over the next decade, with limited space to ensure equitable treatment of all system participants.

Pension Indicators
(Percent and years old, Latest)



Sources: World Bank, Eurostat, and PIOM of FYR Macedonia.
Note: Replacement rate is a ratio of pension income to average income from work.

The pension reforms included in the 2019 budget aim to address these challenges. The reforms allow dual-pillar participants near the retirement age to switch back to the first pillar to obtain equitable benefits, with the transfer of their accrued second-pillar contributions more than offsetting the near-term cost of clearing unpaid obligations to the second pillar. The first-pillar-only and dual-pillar accrual rates are partially harmonized to alleviate the inter-pillar imbalances in pension benefits. To improve long-term sustainability of the system, pension contribution rates would be increased by 0.4 percentage points both in 2019 and 2020 and benefits would be re-indexed to CPI only, isolating them from economic swings (current "Swiss formula" indexation is linked both to prices and real wages).

Rising spending pressures beyond the medium-term warrant consideration of further measures. To contain the rise in the pension system deficit in the medium-term, steadfast implementation of agreed contribution rate increases and pension benefit re-indexation are key. Nonetheless, rising demographic pressures are expected to start increasing the deficit already in early-2020s, partially compounded by the longer-term costs of near-retirement participants moving back to the more generous first pillar. Further sustainability measures should therefore be considered soon, including tightening of conditions for early retirement and gradually harmonizing and raising the currently gender-specific statutory retirement ages[2], while also keeping further adjustment to contribution rates and harmonization of accrual rates under review.

1/ Net accrual rates in the dual-pillar system (0.75 and 0.86 percent for men and women respectively) are lower than in the first pillar only (1.6-2.6 pillar depending on time of service period and gender) and well below their share of pay-as-you-go contributions (two-thirds of contributions paid). The proposed reforms reduce the first pillar accrual rate for the current service period to 1.47 percent and increases dual-pillar accrual rates to 1 and 1.14 percent form men and women respectively.
2/ Retirement ages are 64 and 62 for men and women respectively with 15 years of contributions. Participants working in hazardous occupations can qualify for early retirement at the age of 49.

Table 1. FYR Macedonia: Summary of Economic Indicators, 2015–2023
(Percent, unless otherwise indicated)

	2015	2016	2017	2018	2019	2020	2021	2022	2023
				Projections					
Real GDP	3.9	2.8	0.2	2.0	2.8	3.0	3.1	3.3	3.4
Real domestic demand	5.4	5.0	0.3	0.0	2.6	2.3	2.4	2.4	2.4
Consumption	4.3	2.1	0.1	2.5	2.0	2.1	2.1	2.1	2.1
Private consumption	4.4	3.9	0.7	2.4	2.4	2.5	2.5	2.5	2.5
Gross investment	8.3	12.5	0.8	-6.1	4.1	3.0	3.0	3.0	3.0
Exports (volume)	8.5	9.1	8.1	11.7	8.7	9.0	9.0	9.0	9.0
Imports (volume)	9.9	11.1	6.4	6.1	7.0	6.8	6.8	6.8	6.8
Contributions to growth 1/									
Domestic demand	6.3	6.0	0.7	0.0	3.1	2.8	2.8	2.8	2.8
Net exports	-2.5	-3.2	-0.5	2.0	-0.3	0.2	0.3	0.4	0.6
Output gap (percent of potential GDP)	0.6	1.0	-0.8	-1.0	-0.6	-0.2	0.0	0.0	0.0
Central government operations (percent of GDP)									
Revenues	28.7	28.4	29.1	29.7	30.9	30.9	30.8	30.8	30.8
Expenditures	32.2	31.1	31.8	32.3	33.9	33.7	33.6	33.4	33.2
Of which: capital	3.3	2.9	3.2	2.5	3.5	3.5	3.5	3.5	3.5
Balance	-3.5	-2.7	-2.7	-2.6	-3.0	-2.8	-2.7	-2.6	-2.4
Savings and investment (percent of GDP)									
National saving	28.5	29.7	32.0	31.1	31.4	31.9	32.4	33.0	33.7
Public	-0.1	0.2	0.5	-0.2	0.5	0.7	0.8	1.0	1.2
Private	28.6	29.5	31.5	31.2	30.9	31.2	31.6	32.1	32.5
Foreign saving	2.0	2.9	1.0	0.6	1.4	1.8	2.1	2.3	2.4
Gross investment	30.4	32.5	33.0	31.7	32.8	33.7	34.5	35.3	36.1
Consumer prices									
Period average	-0.3	-0.2	1.4	1.5	1.8	2.0	2.2	2.2	2.2
End-period	-0.3	-0.2	2.4	1.4	2.0	2.0	2.2	2.2	2.2
Private sector credit growth	9.5	0.0	5.3	8.0	7.0	7.0	7.0	7.0	7.0
Memorandum items:									
Current account balance (percent of GDP)	-2.0	-2.9	-1.0	-0.6	-1.4	-1.8	-2.1	-2.3	-2.4
Gross official reserves (millions of euros)	2,262	2,613	2,336	2,779	3,155	3,340	3,476	3,685	3,775
in percent of ST debt	101.2	104.0	82.0	98.1	97.4	95.0	112.0	101.0	100.8
in months of prospective imports	4.2	4.5	3.7	4.1	4.2	4.1	4.0	3.9	3.7
Gross general government debt (percent of GDP)	38.1	39.8	39.4	41.4	42.5	43.2	43.8	44.1	44.1
Public and publicly guaranteed debt (percent of GDP) 2/	44.0	46.7	48.0	50.7	53.0	54.0	54.9	54.9	54.4
Foreign direct investment (percent of GDP)	2.2	3.3	1.8	3.3	3.2	3.2	3.2	3.2	3.2
External debt (percent of GDP)	69.3	74.7	73.9	76.1	78.5	78.4	77.4	76.9	75.5
Nominal GDP (billions of denars)	559	595	617	639	670	705	742	784	828
Nominal GDP (millions of euros)	9,073	9,656	10,014	10,383	10,887	11,442	12,055	12,727	13,455

Sources: NBRM; SSO; MOF; World Bank; and IMF staff estimates and projections. National Accounts are revised by SSO, using ESA 2010

1/ The inconsistency between Real GDP growth and contributions to growth results from discrepancies in the official data on GDP and its

2/ Includes general government and ~~public sector non-financial enterprises debt.~~ SOEs debt.

Table 2a. FYR Macedonia: Central Government Operations, 2015–23
(Billions of MKD denars, unless otherwise specified)

	2015	2016	2017	2018		2019		2020	2021	2022	2023
				Budget	Proj.	Budget	Proj.	Proj.	Proj.	Proj.	Proj.
Total Revenues	160.7	169.0	179.4	192.4	189.7	210.7	207.0	217.8	228.8	241.6	255.4
Tax Revenues and Contributions	140.8	150.4	157.5	170.8	169.8	184.2	182.0	191.8	201.4	212.7	224.8
PIT	12.9	14.2	15.3	16.7	16.4	19.1	18.7	19.6	20.5	21.6	22.9
CIT	12.0	10.8	11.4	14.5	14.5	15.3	15.2	16.0	16.8	17.8	18.8
VAT (net)	41.7	45.9	47.9	49.4	49.2	52.1	51.6	54.2	57.1	60.3	63.7
Excises	19.8	22.2	23.1	25.9	25.6	27.3	26.7	28.0	29.3	31.0	32.8
Custom Duties	4.3	4.8	5.2	5.6	5.6	5.8	5.9	6.2	6.5	6.9	7.3
Other Taxes	2.2	2.2	1.9	2.5	2.4	2.3	2.3	2.4	2.5	2.7	2.8
Social Contributions	47.9	50.3	52.9	56.2	56.2	62.3	61.7	65.5	68.7	72.5	76.6
Pensions	32.2	33.8	35.6	37.8	37.8	42.5	42.1	44.7	46.7	49.3	52.2
Unemployment	2.0	2.2	2.3	2.4	2.4	2.5	2.5	2.7	2.8	2.9	3.1
Health	13.6	14.3	15.0	16.0	16.0	17.3	17.1	18.2	19.1	20.2	21.4
Non-Tax Revenues	12.9	13.0	13.3	14.9	13.7	18.5	17.2	18.1	19.0	20.1	21.2
Capital Revenues	2.3	2.0	1.5	1.9	1.9	2.0	2.0	2.1	2.2	2.3	2.4
Grants	4.7	3.6	7.2	4.8	4.3	6.0	5.9	5.9	6.2	6.5	6.9
Expenditures	180.1	185.0	196.3	210.4	206.6	228.4	227.1	237.8	249.2	261.7	275.0
Current Expenditures	162.0	168.4	176.7	192.0	190.7	202.9	203.6	213.0	223.2	234.2	245.9
Wages and salaries	24.7	26.0	26.2	26.8	26.8	28.3	28.3	29.8	31.4	33.1	35.0
Goods and services	18.1	16.8	15.3	17.6	16.3	19.3	19.3	20.3	21.4	22.6	23.9
Transfers	112.7	118.9	126.8	139.8	139.8	146.1	146.7	152.9	159.7	167.0	174.9
Pension fund expenditures	50.3	54.6	58.1	61.1	61.1	64.6	64.6	67.0	69.7	72.5	75.5
Health	23.6	25.6	27.0	29.0	29.0	30.1	30.1	31.6	33.3	35.2	37.2
Other	38.8	38.7	41.6	49.7	49.7	51.3	52.0	54.3	56.7	59.3	62.2
Interest	6.5	6.8	8.4	7.8	7.8	9.2	9.2	10.0	10.7	11.4	12.1
Capital Expenditures	18.7	17.0	19.9	18.5	15.9	25.6	23.6	24.8	26.2	27.6	29.2
Lending minus repayment 1/	-0.5	-0.4	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Overall fiscal balance	-19.4	-16.1	-16.9	-18.0	-16.9	-17.7	-20.1	-20.0	-20.4	-20.1	-19.6
Primary fiscal balance	-13.0	-9.2	-8.5	-10.2	-9.1	-8.5	-10.9	-9.9	-9.7	-8.7	-7.5
Financing	19.4	16.1	16.9		16.9		20.1	20.0	20.4	20.1	19.6
Domestic	21.7	-3.4	21.3		0.1		0.8	12.3	19.9	-3.8	18.3
Central Bank deposits	10.3	-5.3	10.5		-4.8		-0.1	0.2	-0.6	-0.3	0.3
Other domestic financing	11.4	1.9	10.8		4.9		0.9	12.0	20.5	-3.6	18.0
Privatization receipts	0.0	0.2	0.4		0.0		0.0	0.0	0.0	0.0	0.0
Foreign	-2.3	19.3	-4.8		16.8		19.3	7.7	0.5	23.9	1.3
Memo items:											
Gross general government debt (in percent of GDP) 2/	38.1	39.8	39.4		41.4		42.5	43.2	43.8	44.1	44.1
Nominal GDP (billions of denars)	559	595	617		639		670	705	742	784	828
Stock of government deposits at the NBRM (billions of denars eop)	26	33	22		27		27	27	27	27	27
Public and publicly guaranteed debt (in percent of GDP) 2/ 3/	44.0	46.7	48.0		50.7		53.0	54.0	54.9	54.9	54.4

Sources: MoF and IMF staff estimates.
1/ Results from excluding: (i) revenues from lending; and (ii) lending guarantees from current expenditures.
2/ The historical debt ratios differ slightly from the numbers reported by MoF due to using end-year debt in local currency divided by local currency GDP.
3/ Includes general government and ~~non-financial~~ SOEs. debt.

Table 2b. FYR Macedonia: Central Government Operations, 2015–23
(Percent of GDP)

	2015	2016	2017	2018		2019		2020	2021	2022	2023
				Budget	Proj.	Budget	Proj.	Proj.	Proj.	Proj.	Proj.
Total Revenues	28.7	28.4	29.1	30.1	29.7	31.4	30.9	30.9	30.8	30.8	30.8
Tax Revenues and Contributions	25.2	25.3	25.5	26.7	26.6	27.5	27.1	27.2	27.1	27.1	27.1
PIT	2.3	2.4	2.5	2.6	2.6	2.8	2.8	2.8	2.8	2.8	2.8
CIT	2.2	1.8	1.8	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
VAT (net)	7.5	7.7	7.8	7.7	7.7	7.8	7.7	7.7	7.7	7.7	7.7
Excises	3.5	3.7	3.7	4.1	4.0	4.1	4.0	4.0	4.0	4.0	4.0
Custom Duties	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Other Taxes	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
Social Contributions	8.6	8.5	8.6	8.8	8.8	9.3	9.2	9.3	9.3	9.3	9.3
Non-Tax Revenues	2.3	2.2	2.2	2.3	2.1	2.8	2.6	2.6	2.6	2.6	2.6
Capital Revenues	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Grants	0.8	0.6	1.2	0.7	0.7	0.9	0.9	0.8	0.8	0.8	0.8
Expenditures	32.2	31.1	31.8	32.9	32.3	34.1	33.9	33.7	33.6	33.4	33.2
Current Expenditures	29.0	28.3	28.7	30.0	29.8	30.3	30.4	30.2	30.1	29.9	29.7
Wages and salaries	4.4	4.4	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
Goods and services	3.2	2.8	2.5	2.8	2.6	2.9	2.9	2.9	2.9	2.9	2.9
Transfers	20.2	20.0	20.6	21.9	21.9	21.8	21.9	21.7	21.5	21.3	21.1
Pension fund expenditures	9.0	9.2	9.4	9.5	9.5	9.6	9.6	9.5	9.4	9.3	9.1
Health	4.2	4.3	4.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Other	6.9	6.5	6.8	7.8	7.8	7.7	7.8	7.7	7.6	7.6	7.5
Interest	1.2	1.1	1.4	1.2	1.2	1.4	1.4	1.4	1.4	1.5	1.5
Capital Expenditures	3.3	2.9	3.2	2.9	2.5	3.8	3.5	3.5	3.5	3.5	3.5
Lending minus repayment 1/	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall fiscal balance	-3.5	-2.7	-2.7	-2.8	-2.6	-2.6	-3.0	-2.8	-2.7	-2.6	-2.4
Primary fiscal balance	-2.3	-1.6	-1.4	-1.6	-1.4	-1.3	-1.6	-1.4	-1.3	-1.1	-0.9
Financing	3.5	2.7	2.7		2.6		3.0	2.8	2.7	2.6	2.4
Domestic	3.9	-0.6	3.5		0.0		0.1	1.7	2.7	-0.5	2.2
Central Bank deposits	1.8	-0.9	1.7		-0.8		0.0	0.0	-0.1	0.0	0.0
Other domestic financing	2.0	0.3	1.7		0.8		0.1	1.7	2.8	-0.5	2.2
Foreign	-0.4	3.2	-0.8		2.6		2.9	1.1	0.1	3.1	0.2
Memo items:											
Gross general government debt (in percent of GDP) 3/	38.1	39.8	39.4		41.4		42.5	43.2	43.8	44.1	44.1
Nominal GDP (billions of denars)	559	595	617		639		670	705	742	784	828
Stock of government deposits at the NBRM (billions of denars eop)	26	33	22		27		27	27	27	27	27
Public and publicly guaranteed debt (in percent of GDP) 2/ 3/	44.0	46.7	48.0		50.7		53.0	54.0	54.9	54.9	54.4

Sources: MoF and IMF staff estimates.
1/ Results from excluding: (i) revenues from lending; and (ii) lending guarantees from current expenditures.
2/ The historical debt ratios differ slightly from the numbers reported by MoF due to using end-year debt in local currency divided by local currency GDP.
3/ Includes general government and ~~non-financial~~ SOEs~~.~~ debt.

Annex III. Debt Sustainability Analysis

General government and public debt is projected to increase, driven by primary deficits before stabilizing toward the end of the medium-term projection period. Public debt is assessed sustainable under the staff's baseline projection, but high gross financing needs and potential shocks to growth continue to constitute major risks. Durable fiscal consolidation is therefore needed to put debt firmly on a downward path and rebuild fiscal space. Improvement in public debt management is visible and should be continued.

A. Background

1. **FYR Macedonia's public debt, which includes general government and SOE-guaranteed debt, has nearly doubled since 2008, reaching 48 percent of GDP in 2017.** Over this period, the general government debt has increased by 18¾ percentage points of GDP to about 39½ percent of GDP at end-2017. Despite revenue shortfalls and increases in pensions and subsidies, the fiscal deficit has narrowed in recent years due to a halt in goods and services, and capital investment spending during the political crisis. Publicly guaranteed debt of ~~non-financial enterprises~~ SoEs rose from 2½ percent of GDP in 2008 to 8½ percent of GDP at end-2017 due to implementations of public transport infrastructure projects by the Public Enterprise for State Roads (PESR). Meanwhile, medium-term gross financing requirements of the general government and the public sector are high due to high roll-over needs, peaking at about 13 and 15 percent of GDP, respectively, in the next three years.

2. **There have been improvements in the public debt structure, particularly in domestic public debt.** The average maturity of outstanding government securities has increased significantly from less than 12 months in 2011 to around 4½ years by 2017, reflecting increasing reliance on long-term borrowing. In the meantime, the share of FX-denominated domestic government securities has declined from 90 percent in 2009 to around 46½ percent in 2017. Interest rates on all types of securities have decreased noticeably. However, most of the public debt is external, resulting in around three-quarters of public debt being FX-denominated.

3. **External debt has increased by 25 percent of GDP since 2008, reaching 73.9 percent of GDP in 2017**. The main drivers of the increases in external debt have been public sector borrowing and FDI-related intercompany borrowing. External gross financing needs have continued their declining trend to reach 19 percent of GDP in 2017, thanks to a broadly stable debt service in nominal terms and moderately improving trade balances.

Figure 6. FYR Macedonia: ~~Non-Financial~~ Public Sector General Government Debt Sustainability (DSA) – Baseline Scenario

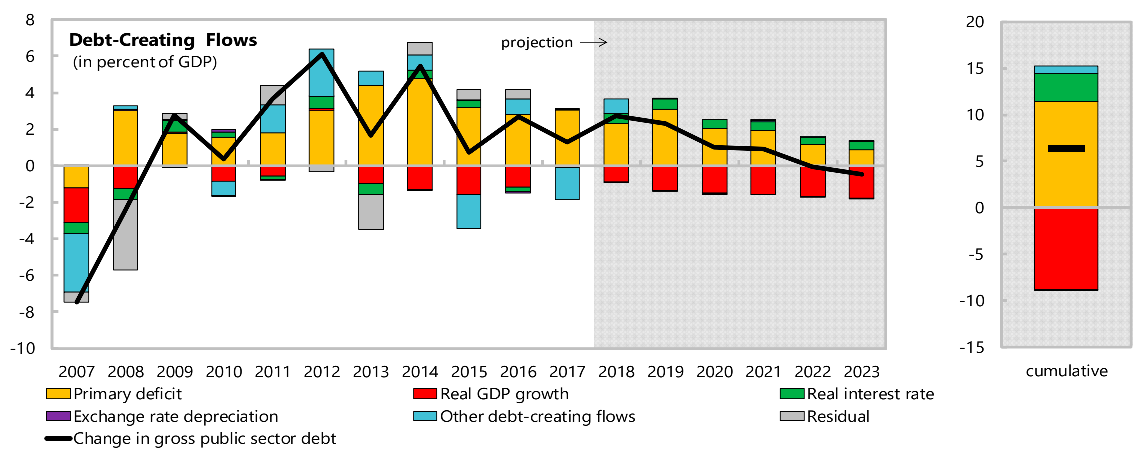
(In percent of GDP unless otherwise indicated)

Debt, Economic and Market Indicators [1/]

	Actual			Projections						As of October 10, 2018		
	2007-2015 [2/]	2016	2017	2018	2019	2020	2021	2022	2023	Sovereign Spreads		
Nominal gross public debt	32.5	46.7	48.0	50.7	53.0	54.0	54.9	54.9	54.4	EMBIG (bp) 3/		293
Public gross financing needs	16.4	16.6	14.9	15.4	14.4	14.2	14.9	10.7	11.1	5Y CDS (bp)		n.a.
Real GDP growth (in percent)	3.0	2.8	0.2	2.0	2.8	3.0	3.1	3.3	3.4	Ratings	Foreign	Local
Inflation (GDP deflator, in percent)	2.8	3.5	3.4	1.7	2.0	2.0	2.2	2.2	2.2	Moody's	n.a.	n.a.
Nominal GDP growth (in percent)	5.9	6.4	3.7	3.7	4.9	5.1	5.4	5.6	5.7	S&Ps	BB-	BB-
Effective interest rate (in percent) [4/]	3.1	3.0	3.5	3.0	3.2	3.2	3.2	3.1	3.1	Fitch	BB	BB

Contribution to Changes in Public Debt

	Actual			Projections							
	2007-2015	2016	2017	2018	2019	2020	2021	2022	2023	cumulative	debt-stabilizing
Change in gross public sector debt	1.2	2.7	1.3	2.7	2.3	1.0	0.9	-0.1	-0.5	6.4	primary
Identified debt-creating flows	1.7	2.2	1.2	2.7	2.3	1.0	0.9	-0.1	-0.5	6.4	balance [9/]
Primary deficit	2.5	2.8	3.1	2.3	3.1	2.0	1.9	1.2	0.9	11.4	-1.4
Primary (noninterest) revenue and gra	29.9	28.4	29.1	29.7	30.9	30.9	30.8	30.8	30.8	183.9	
Primary (noninterest) expenditure	32.4	31.2	32.2	32.0	34.0	32.9	32.8	32.0	31.7	195.3	
Automatic debt dynamics [5/]	-0.8	-1.5	-0.1	-0.3	-0.8	-1.0	-1.1	-1.3	-1.3	-5.8	
Interest rate/growth differential [6/]	-0.9	-1.4	-0.1	-0.3	-0.8	-1.0	-1.1	-1.3	-1.3	-5.8	
Of which: real interest rate	0.1	-0.2	0.0	0.6	0.6	0.5	0.5	0.4	0.4	3.0	
Of which: real GDP growth	-0.9	-1.2	-0.1	-0.9	-1.4	-1.5	-1.6	-1.7	-1.8	-8.8	
Exchange rate depreciation [7/]	0.0	-0.1	0.0	…	…	…	…	…	…	…	
Other identified debt-creating flows	0.0	0.9	-1.8	0.8	0.0	0.0	0.1	0.0	0.0	0.8	
Privatization receipts (negative)	-0.2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Changes in cash, deposits, and secur	0.2	0.9	-1.7	0.8	0.0	0.0	0.1	0.0	0.0	0.8	
Residual, including asset changes [8/]	-0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	



Source: IMF staff.

1/ ~~Public sector is defined as non-financial public sector.~~ Includes general government and SOEs debt.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.

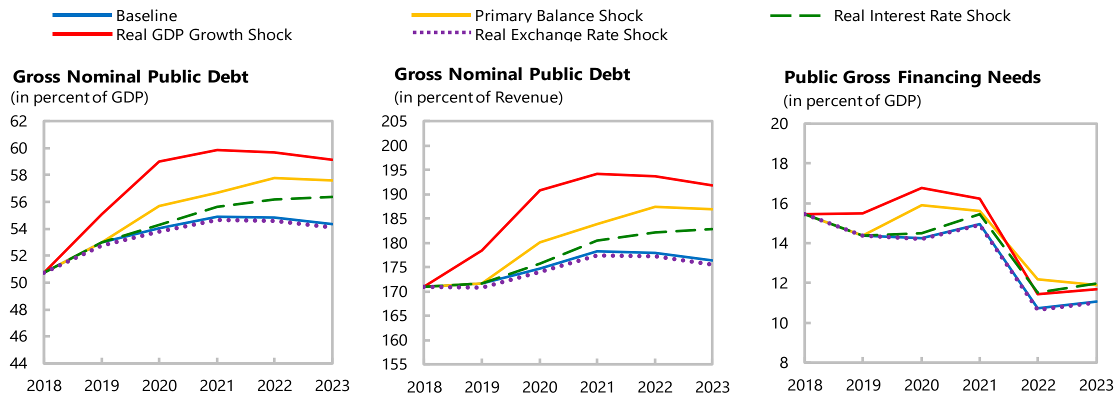
7/ The exchange rate contribution is derived from the numerator in footnote 5 as ae(1+r).

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

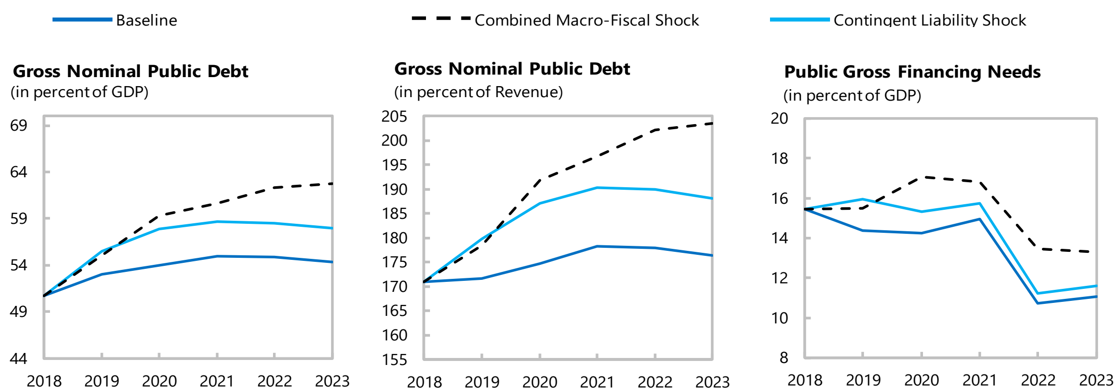
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Figure 7. FYR Macedonia: ~~Non-Financial~~ Public Sector DSA – Stress Tests

Macro-Fiscal Stress Tests



Additional Stress Tests



Underlying Assumptions
(in percent)

Primary Balance Shock	2018	2019	2020	2021	2022	2023
Real GDP growth	2.0	2.8	3.0	3.1	3.3	3.4
Inflation	1.7	2.0	2.0	2.2	2.2	2.2
Primary balance	-2.3	-3.1	-3.7	-2.0	-2.3	-1.3
Effective interest rate	3.0	3.2	3.2	3.3	3.2	3.2
Real Interest Rate Shock						
Real GDP growth	2.0	2.8	3.0	3.1	3.3	3.4
Inflation	1.7	2.0	2.0	2.2	2.2	2.2
Primary balance	-2.3	-3.1	-2.0	-1.9	-1.2	-0.9
Effective interest rate	3.0	3.2	3.7	4.0	4.3	4.5
Combined Shock						
Real GDP growth	2.0	0.8	1.0	3.1	3.3	3.4
Inflation	1.7	1.5	1.5	2.2	2.2	2.2
Primary balance	-2.3	-3.9	-3.7	-2.0	-2.3	-1.3
Effective interest rate	3.0	3.2	3.7	4.0	4.3	4.4

Real GDP Growth Shock	2018	2019	2020	2021	2022	2023
Real GDP growth	2.0	0.8	1.0	3.1	3.3	3.4
Inflation	1.7	1.5	1.5	2.2	2.2	2.2
Primary balance	-2.3	-3.9	-3.6	-1.9	-1.2	-0.9
Effective interest rate	3.0	3.2	3.2	3.3	3.2	3.2
Real Exchange Rate Shock						
Real GDP growth	2.0	2.8	3.0	3.1	3.3	3.4
Inflation	1.7	1.7	2.0	2.2	2.2	2.2
Primary balance	-2.3	-3.1	-2.0	-1.9	-1.2	-0.9
Effective interest rate	3.0	3.2	3.2	3.2	3.1	3.1
Contingent Liability Shock						
Real GDP growth	2.0	0.8	1.0	3.1	3.3	3.4
Inflation	1.7	1.5	1.5	2.2	2.2	2.2
Primary balance	-2.3	-4.3	-2.0	-1.9	-1.2	-0.9
Effective interest rate	3.0	3.3	3.2	3.2	3.2	3.2

Source: IMF staff.

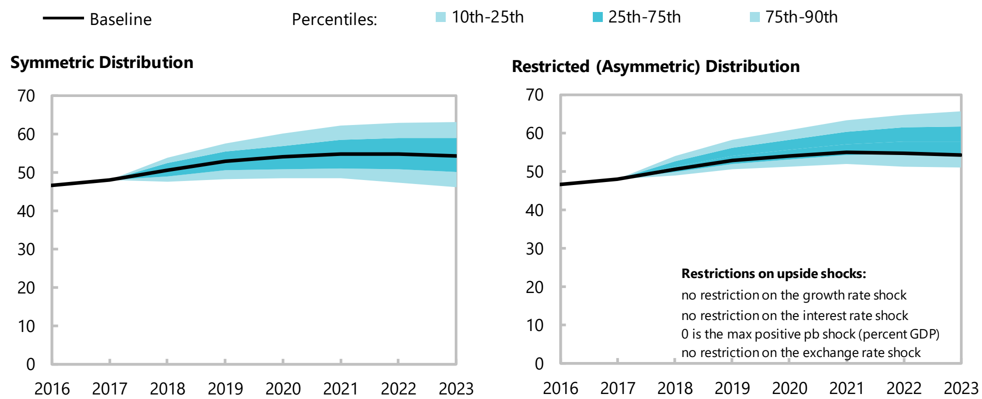
Figure 8. FYR Macedonia: ~~Non-Financial~~ Public Sector DSA Risk Assessment

Heat Map

Debt level 1/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs 2/	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile 3/	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

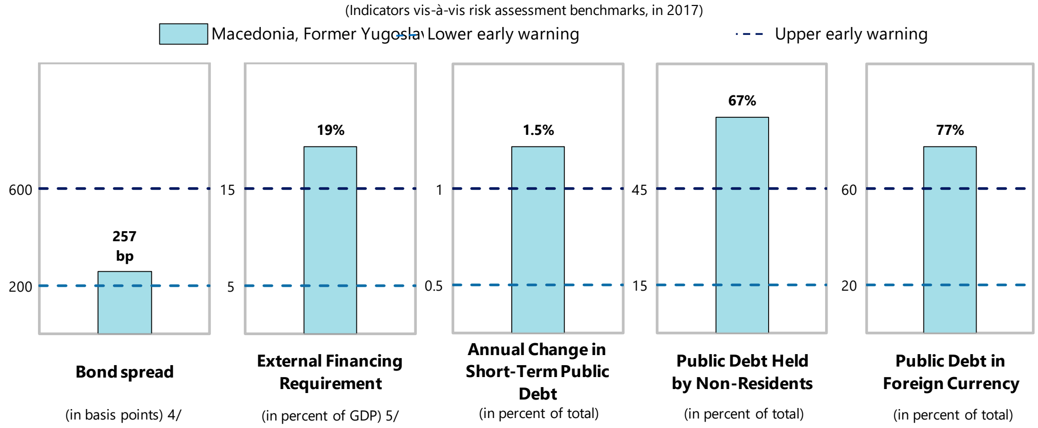
Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2017)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 70% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 15% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white.
Lower and upper risk-assessment benchmarks are:

200 and 600 basis points for bond spreads; 5 and 15 percent of GDP for external financing requirement; 0.5 and 1 percent for change in the share of short-term debt; 15 and 45 percent for the public debt held by non-residents; and 20 and 60 percent for the share of foreign-currency denominated debt.

4/ Long-term bond spread over German bonds, an average over the last 3 months, 12-Jul-18 through 10-Oct-18.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.