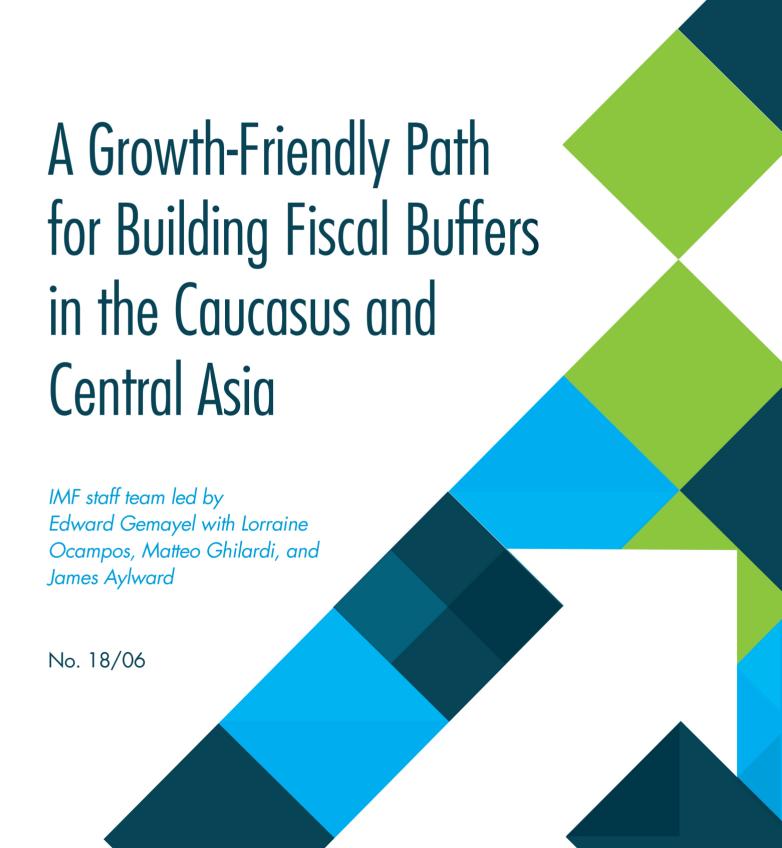
## Middle East and Central Asia Department



# A Growth-Friendly Path for Building Fiscal Buffers in the Caucasus and Central Asia

A team lead by Edward Gemayel with Lorraine Ocampos, Matteo Ghilardi, and James Aylward International Monetary Fund

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### **Contents**

Ac	knowledgments	V
Ex	ecutive Summary	vii
1.	Macroeconomic Impact of External Shocks	1
2.	Fiscal Reaction to the Shocks	5
3.	Fiscal Plans	9
4.	Key Elements of a Strengthened Consolidation Plan	15
	Advancing Growth-Friendly Tax Policy Reform	15
	Streamlining and Increasin Efficiency of Public Spending	19
5.	Strengthening Fiscal Policy Frameworks	25
6.	Stepping Up Structural Reforms to Support Pro-Growth Consolidation	29
7.	Conclusion and Main Recommendations	31
Re	ferences	33
Ap	pendix 1. The Fiscal Policy Reaction Functionpendix 2. Gross and Net Debt Conceptspendix 3. Caucasus and Central Asian Countries: Stance of Fiscal Rules	39
Fię	gures	
	1. CCA Region: Outlook for Growth and External Positions, 2013 versus 2017	2
	2. CCA Region: External Shocks, WEO Projections 2013 versus 2017	2
	3. CCA Region: Fiscal Balances for Oil-Exporters and Importers, WEO Projections 2013 versus 2017	6
	4. CCA Region Fiscal Reactions 2014–16: Actual versus Predicted by Fiscal Response Function	7
	5. Public Debt Options for the CCA	
	6. Fiscal Anchor Options for CCA Oil Exporters	
	7. Fiscal Anchor Options for CCA Oil Importers	11
	8. Contributions to Improvement in Fiscal Balance over the period 2017 to 2022	12
	9. CCA Tax Revenue: Medium Term Current Projections	16
	10. CCA Wage Bill – Medium-Term Current Projections	20
	11. General Government Wage Bill and Public-Sector Employment	20

#### A GROWTH-FRIENDLY PATH

12. CCA Region: Government Spending on Social Services	:3
13. CCA Assessment of Expenditure Quality and Effciency	4
14. Frequency of Fiscal Rules in the Countries of Dierent Income Levels2	6
15. Structural Reform Progress in the CCA, 2016	0
Tables	
1. Tax Revenue by Category, 2015	7
2. CCA Non-Oil Tax Collection Efficiency, 2015	7
3. World Bank Doing Business Indicators 2017: Paying Taxes	8
4. CCA: Pre-Tax Energy Subsidies2	:1
5. Public and Private Investment	22
6. Public Investment Efficiency, Distance to Frontier	.3
Annex Figures	
1.1. Responsiveness of Fiscal Balance to a Negative Shock of 1 Percent of GDP at Time t	6
Annex Tables	
1. Results: Fiscal Policy Reaction Function, 2000-2013	6
2. CCA Countries: Stance of Fiscal Rules	1

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### **Executive Summary**

Four years ago, the Caucasus and Central Asia (CCA) region's economic prospects were quite favorable. Buoyed by high commodity prices and rising remittances, growth was among the fastest in the world, inflation was in line with central banks' target ranges, and external and fiscal positions were considered comfortable but vulnerable to downside risks.

In 2014–15, the downside risks materialized. The region was hit by several adverse external shocks, notably a persistent commodity price slump, an abrupt decline in remittances, and lower import demand by key trading partners, especially China and Russia. Moreover, the economies' lack of diversification amplified the adverse shocks' effect on growth, renewing attention on the need to promote more inclusive and sustainable growth in the region.

Before 2014–15, fiscal policy makers tended to correct deviations from fiscal deficit targets quickly. But faced with the unusual size and persistent nature of the 2014–15 shocks, most countries delayed corrections. This delay usefully helped contain the slump in output and job creation, but it also increased government debt. At the same time, given the region's preponderance of state-owned enterprises (SOEs) and state-controlled banks, sizeable fiscal risks may have built up outside the rather restricted perimeters of official government budgets.

Against this backdrop, fiscal policy makers now face the challenge of restoring sounder public finances over the medium term by using consolidation measures that rate well when checked against growth friendliness and inclusiveness criteria. Yet consolidation requires not only setting and achieving reasonably ambitious medium-term deficit targets, but also proactively identifying and addressing—or at least containing—fiscal risks. Even more

broadly, with commodity prices unlikely to revert to pre-shock levels, fiscal consolidation needs to be framed in the context of transitioning to new country growth models.

Hydrocarbon exporters and importers face very different fiscal challenges. Governments in hydrocarbon-exporting countries need to decide whether to build up additional net financial assets to smooth their countries' future consumption once hydrocarbon resources are exhausted, or, less ambitiously, at least to stabilize net financial assets at present levels. Hydrocarbon importers face a similar choice, but in their case, it is between stabilizing their present public debt levels or, more ambitiously, reducing public debt to pre-shock levels.

Present medium-term fiscal plans suggest that hydrocarbon exporters and importers are aiming broadly at stabilizing their present net financial assets and debt levels, respectively. In view of the likely buildup of sizable fiscal risks outside official budgets, more ambitious medium-term fiscal targets would seem desirable. At the same time, since CCA countries generally do not face elevated debt distress risks, arguably, their present medium-term fiscal plans strike a reasonable balance between more ambitious consolidation and the political-economic imperative of keeping consolidation growth-friendly and inclusive.

The tax revenue side of CCA countries' budgets could be a key lever in a growth-friendly consolidation package and to improve the fairness of the tax burden distribution. Broadening direct and indirect tax bases in many countries could provide additional revenue, even after reducing widespread tax exemptions. The unequal distribution of the tax burden remains an investment climate concern in some countries. Finally, better enforcement of tax collection, including by taxing higher net worth individuals more effectively, could improve tax fairness perceptions.

On the expenditure side, consolidation would need to focus on streamlining government wage bills and reforming energy subsidies further while strengthening social safety nets for the most vulnerable. At the same time, to improve growth friendliness and inclusiveness, expenditure policies should aim at creating space for well-designed growth-raising public investments to boost their efficiency and productivity.

Anchoring fiscal consolidation is always challenging, although experiences in other regions suggest that well-designed fiscal rules can play a valuable supporting role. However, fiscal rules must be tailored to country-specific political landscapes to most effectively minimize circumvention of rules, such as by shifting spending to public-sector units outside government. Further

improvements in public financial management, including more medium-term oriented budgeting, could also help anchor fiscal consolidation plans.

Fiscal consolidation—even if well designed and accompanied by accommodative monetary policy—is likely to have significant contractionary effects on real activity. Structural reforms that boost the economy's supply side can help counteract these contractionary effects. In fact, comparisons with peers suggest there is considerable scope for structural reforms to improve the business climate in most CCA countries.

#### CHAPTER

# 1

### **Macroeconomic Impact of External Shocks**

Prior to 2013, CCA countries were generally cruising along nicely, with rapid catch-up growth, reasonably low inflation, and muted external or financial stability risks. The adverse external shocks that hit the region in 2014–15 were a sea change, lowering growth prospects, revealing structural weaknesses, and weakening external and fiscal positions.

As of late 2013, prospects for the CCA region appeared quite favorable, buttressed by strong commodity prices and remittances (See IMF 2013a; IMF 2013b). The IMF's Regional Economic Outlook (REO) noted that real output would continue to expand at a fast clip, averaging about 6 percent, making the CCA one of the fastest-growing regions in the world (Figure 1, left panel). Inflation was projected to remain within central banks' explicit or implicit comfort zones. At the same time, the region's overall external current account position was projected to stay at comfortable levels (Figure 1, right panel), especially for oil and gas exporters. The Regional Economic Outlook, however, also noted that near-term risks were generally tilted to the downside, pointing to the risk of lower commodity prices, lower external demand, and lower remittances from migrants, especially from Russia in the latter two.

The 2014–15 external shocks—oil prices and slowdown in China, the European Union, and Russia—significantly impacted growth prospects and revealed important structural weaknesses and vulnerabilities.<sup>1</sup> These weaknesses reflected limited export diversification in both the type of exports (commodities and labor) and exports destinations (IMF 2017a), as the impact of shocks on the region's terms of trade and external demand illustrate (Figure 2). Both dropped sharply after 2014, declining well below

<sup>&</sup>lt;sup>1</sup>The decline in commodity prices is expected to be quite lasting, while other shocks, such as the decline in demand from key trading partners, will likely be partly reversed over time.

Figure 1. CCA Region: Outlook for Growth and External Positions, 2013 versus 2017

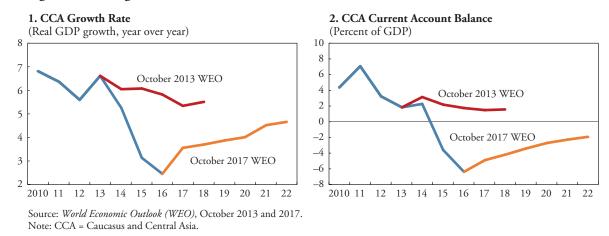
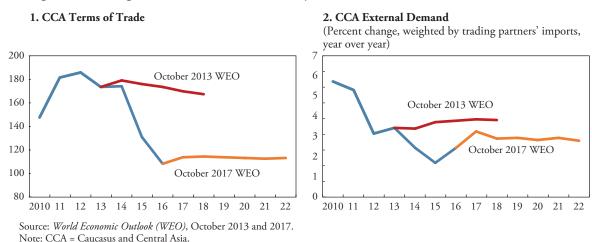


Figure 2. CCA Region: External Shocks, WEO Projections 2013 versus 2017



2013 projections.<sup>2</sup> In addition, remittances by migrant workers, which were projected to continue to follow an upward trend in late-2013, fell to significantly lower levels. Given the direct effect of the decline in oil prices, growth slowed most in the region's oil exporters, with the average declining from 6.7 percent in 2013 to 2.2 percent in 2016. Over the same period, average GDP growth in oil importers declined from 5.7 percent to 3.3 percent, driven by a large decline in trade and remittances. In oil-exporting countries, current account balances declined, on average, from 2.9 percent of GDP at the end 2013 to –5.9 percent of GDP at the end of 2016. In oil-importing countries, the decline was less pronounced—from –5.8 percent of GDP to –7.9 percent of GDP.

<sup>&</sup>lt;sup>2</sup>While terms of trade gained in countries importing oil and gas, those were dwarfed by the terms-of-trade losses of the oil-and-gas-exporting countries.

Given the impact and long-lasting nature of the shocks in the absence of far-reaching reform, medium-term growth for the CCA region is now projected to remain below historical levels. Real income declines for oil and gas exporters—considering terms of trade effects—have been even larger. A return of growth to higher, (near-) pre-crisis levels over the medium term will require a new inclusive and employment generating growth model based on forceful implementation of structural reforms—including enhanced diversification—to promote inclusive growth, while restoring buffers and confidence.

<sup>&</sup>lt;sup>3</sup>For example, the real income windfall loss for Kazakhstan during 2015–16 was estimated at about 20 percent of GDP (See IMF 2016a, 17).

#### **CHAPTER**

# 2

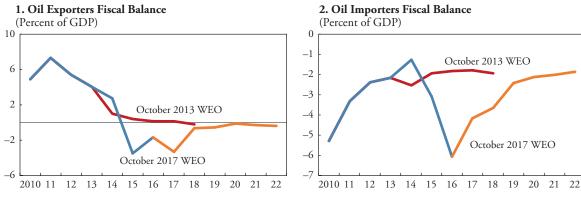
### **Fiscal Reaction to the Shocks**

In response to the shocks, CCA countries mostly resorted to countercyclical fiscal policies to contain the impact on growth. These policies, while appropriate in the short term, have significantly reduced fiscal buffers, leaving countries vulnerable to fiscal risks and requiring significant consolidation in the years ahead.

Prior to the 2014 shocks, fiscal policy tended to react quickly to correct deviations from fiscal targets (Appendix 1). Empirical analysis suggests that, on average, deviations from fiscal targets were corrected by about 80 percent in the following year. At the same time, automatic fiscal stabilizers were in general allowed to operate. Reasons for this observed policy behavior may include: (1) the magnitude and the temporary nature of earlier shocks, (2) the lack of access to readily available financing—a constraint that seems to be particularly binding among oil importers, and (3) the perception that deviations from fiscal targets would be interpreted as a sign of fiscal and monetary profligacy, causing high inflation (as in the 1990s).

During 2014–16, fiscal policies were more accommodative than in the past. The predicted and actual paths of the fiscal balance as a percent of GDP show that in general policies were significantly more countercyclical than expected, with all CCA countries ending up with weaker fiscal positions in 2016 than predicted (Figure 3). Given the magnitude of the shocks, the response (slow correction) was in most cases appropriate. But behavioral differences existed across countries: Azerbaijan, Turkmenistan, and Tajikistan strayed significantly from the adjustment path, consistent with past behavior, and Georgia's and Uzbekistan's fiscal positions developed broadly in line with predicted positions, though at a lower level. The Kyrgyz Republic's initial fiscal balance improvement was not sustained, while fiscal balances in Armenia and Kazakhstan weakened much more quickly and dramatically than predicted (Figure 4).

Figure 3. CCA Region: Fiscal Balances for Oil-Exporters and Importers, WEO Projections 2013 versus 2017



Source: World Economic Outlook (WEO), October 2013 and 2017.

Note: CCA = Caucasus and Central Asia.

As a result, public debt levels and fiscal deficits in both oil exporters and importers increased considerably. In oil importers, from 2013 to 2016, weaker revenues and higher public spending to support economic activity raised gross public debt by about 12 percent of GDP (to around 49 percent of GDP) and weakened fiscal balances by about 4 percent of GDP (to –6.1 percent of GDP). In oil exporters (Azerbaijan and Kazakhstan), net public debt decreased by about 7 percent of GDP and fiscal balances deteriorated by about 7 percent of GDP on average over the same period, to –26 percent and 3.3 percent of GDP, respectively.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>The improvement in net debt in national currency terms in both Azerbaijan and Kazakhstan reflects the impact of the exchange rate depreciation on their foreign assets.

1. Azerbaijan 2. Kazakhstan -2 -4 -4-6 -8 -8 3. Turkmenistan 4. Uzbekistan 5. Armenia 6. Georgia -2.5-2-3 -3 -3.5-5 -4.5 -6 7. Kyrgyz Republic 8. Tajikistan -2 -2 -3 -6 -4 Predicted fiscal balance - Actual fiscal balance

Sources: World Economic Outlook 2017; IMF staff calculations.

Note: CCA = Caucasus and Central Asia.

#### **CHAPTER**

# 3 Fiscal Plans

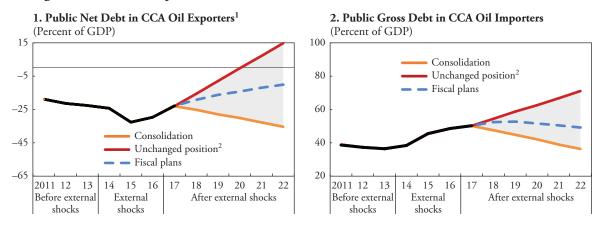
Under current fiscal projections, most countries are pursuing policies that satisfy minimum consolidation standards by stabilizing public debt ratios at present levels over the medium term. However, given the magnitude and the persistent nature of the shocks, fiscal policy would need to be more ambitious by aiming to reduce debt to pre-crisis levels to rebuild buffers and reduce vulnerabilities. The appropriate size, timing, and speed of fiscal consolidation are essential components of well-planned consolidation that preserves economic growth.

Three possible scenarios may be considered for debt paths over the medium term (Figure 5): A no-adjustment scenario (red line), current projections/plans (blue-dashed line), and a more ambitious scenario (orange line). Figures 6 and 7 describe the country-by-country fiscal scenarios and the corresponding fiscal balances and debt levels.

Under current projections, most countries are pursuing policies that satisfy minimum consolidation standards by stabilizing public debt ratios at present levels over the medium-term (Figure 5, blue-dashed line). Overall, adjustment plans for 2017–22 vary by country. Countries with higher deficits—like Azerbaijan, Kazakhstan, and Tajikistan—have generally initiated larger adjustment plans, reflecting the magnitude of the shock they are facing as well as the impact of the countercyclical policies they pursued. Others, like Armenia, Georgia, and the Kyrgyz Republic have more moderate adjustment plans.

• For CCA oil exporters, fiscal deficits, even after incorporating their announced measures, are still projected to average about 1.1 percent of GDP in 2022 compared to an average surplus of 3.9 percent of GDP at end-2013. Public gross debt is projected to increase from an average of about 13 percent of GDP at the end of 2013 to about 22 percent of GDP in 2022. However, the governments' net financial assets—the difference

Figure 5. Public Debt Options for the CCA

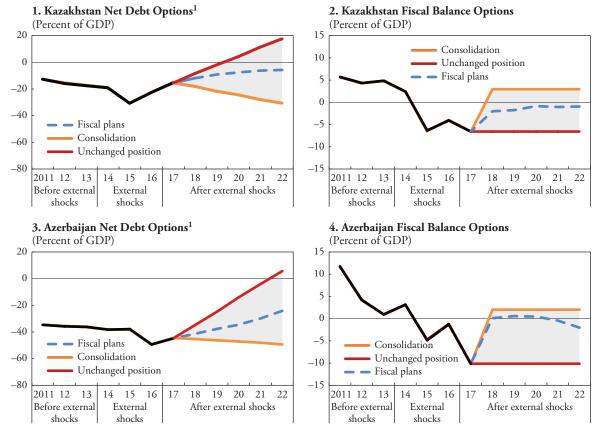


Sources: IMF Regional Economic Outlook October 2017; IMF staff calculations.

Note: CCA = Caucasus and Central Asia. Turkmenistan and Uzbekistan omitted for lack of data

<sup>1</sup>Public debt for oil exporters is measured on a net debt basis, taking into account foreign assets of country oil funds.

Figure 6. Fiscal Anchor Options for CCA Oil Exporters



Sources: IMF Regional Economic Outlook, October 2017; IMF staff calculations.

Note: CCA = Caucasus and Central Asia. Turkmenistan and Uzbekistan omitted for lack of data.

<sup>&</sup>lt;sup>2</sup>Unchanged position refers to a scenario in which the end-2017 fiscal balance is added to the stock of debt in each forecast year.

<sup>&</sup>lt;sup>1</sup>Azerbaijan and Kazakhstan measured on a net debt basis, taking into account foreign assets of country oil funds.

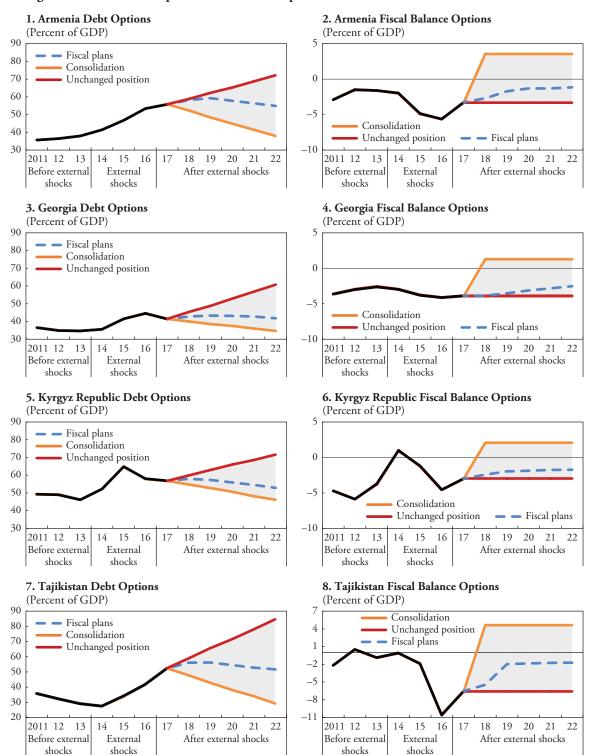


Figure 7. Fiscal Anchor Options for CCA Oil Importers

Sources: IMF Regional Economic Outlook, October 2017; IMF staff calculations. Note: CCA = Caucasus and Central Asia.

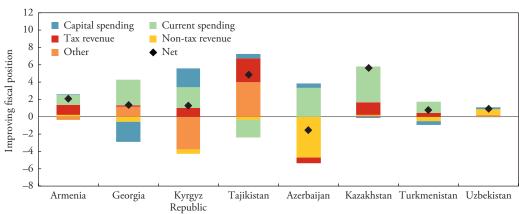


Figure 8. Contributions to Improvement in Fiscal Balance over the period 2017 to 2022 (Percent of GDP)

Source: IMF Regional Economic Outlook, 2017.

between gross assets and government debt (see Appendix 2)—would fall from 34 percent of GDP in 2013 to close to 23 percent of GDP by 2022, diminishing buffers.

• For oil importers, a similar picture emerges. The fiscal deficit is expected to average about 1.9 percent of GDP in 2022, similar to the end-2013 average. Nevertheless, public debt is projected to increase from an average of about 37 percent of GDP at the end of 2013 to 50 percent of GDP by 2022.

# The composition of the planned fiscal adjustment over 2017–22 varies by country (Figure 8):

- Countries have typically focused on spending cuts, since these have increased significantly during the period of high oil prices. As a result, some countries appear to be planning sizable cuts in public investment (Kyrgyz Republic and Tajikistan). In contrast, countries such as Georgia, Kazakhstan, and Turkmenistan intend to protect their investment plans. Most countries, except for Tajikistan and Uzbekistan, will be curtailing their current expenditures, with Georgia and the Kyrgyz Republic planning sizable cuts in the wage bill.
- On the revenue side, Armenia, Georgia, Kazakhstan, Kyrgyz Republic and Tajikistan will be pursuing policies to increase their tax revenues. While Uzbekistan will make limited effort to increase its tax revenues, Azerbaijan's tax revenues are expected to drop slightly.

Given the persistent nature of the shocks and the risk of renewed headwinds, however, most CCA countries would benefit from more ambitious consolidation efforts. This would allow rebuilding of buffers, creating room for countercyclical policies in case further shocks arise. These shocks could include a decline in remittances and a contraction of economic activity in key trading partners in the case of oil importers and lower commodity prices and a decline in sovereign wealth funds' assets in the case of oil exporters. If done in a growth-friendly manner, this would allow them to continue to pursue their existing expenditure plans, especially infrastructure investments, by targeting expenditure inefficiencies and increasing revenues (Section 4).

A more ambitious consolidation process would involve bringing debt to pre-shocks levels (Figure 6 and 7, orange line). In this scenario, CCA countries would rebuild fiscal buffers faster, providing them adequate fiscal space should future shocks emerge. The medium-term target would differ depending on whether the country is an oil importer or an oil exporter. Oil importers would target a pre-shock level of gross public debt, which would require a consolidation of gross debt of about 15 percent of GDP to create enough fiscal space for unanticipated future shocks. Oil exporters would target a pre-crisis net debt-to-GDP ratio of –37 percent, which would require a consolidation effort of about 12.5 percent of GDP to preserve the stock of assets in sovereign wealth funds from depleting.

The choice of the size, timing, and speed of consolidation is crucial but complex and depends on many factors, including the availability of fiscal space. Although relatively low on average, debt in the CCA region is very sensitive to shocks (such as growth or commodity price shocks). Should these materialize, fiscal space could disappear, and as such countries with limited space, facing probable budget funding crisis, should front-load consolidation and reduce debt to sustainable levels in the near term.

Countries with manageable debt levels could follow more gradual consolidation, which implies constant improvement in the fiscal balance over the medium term. This would also allow them to preserve economic growth.

Lastly, countries with ongoing fiscal stimulus or financial support programs may delay consolidation by 1–2 years, as early withdrawal could hurt growth prospects and exacerbate financial sector problems. In these cases, more ambitious consolidation would be needed to reduce debt levels.

In choosing a medium-term target, CCA countries must factor in potential fiscal risks. First, countries in the region are subject to unanticipated shocks. Second, SOEs represent a large portion of the economy. These are often funded by the state and could pose a contingent liabilities risk. Third, financial and banking sector issues intensified after the recent drop in oil prices and may require additional funding or bailouts.

#### CHAPTER

# 4

### **Key Elements of Stronger Consolidation**

To support the stronger pro-growth fiscal policies discussed above, CCA countries need to redouble efforts to enhance revenue mobilization and increase productive spending and its efficiency. Higher tax revenues would support consolidation while allowing higher pro-growth expenditures. The increase in revenues should be accompanied by efforts to enhance fairness by reducing regressive and distortive exemptions and closing loopholes. On the spending side, moreover, better prioritization and streamlining current expenditure and increased efficiency of capital and social spending would be crucial for increasing productivity and growth. It would also improve the business environment while reducing income inequality and fighting poverty.

### Advancing Growth-Friendly Tax Policy Reform

Revenue collection could be boosted to allow higher growth-friendly expenditure and help consolidation efforts. Planned revenue mobilization in the CCA is relatively modest. Under current medium-term projections, oil importers—with relatively higher tax-to-GDP levels—are planning to increase the tax-to-GDP ratio by about 2 percentage points on average to 22 percent of GDP. Oil exporters—with levels below comparator economies—are expected, on average, to keep their non-oil tax levels at around 15 percent of GDP (Figure 9).

More could be done to increase tax revenues and the efficiency of the tax system, particularly in countries with low tax collection. Even though tax indicators in the CCA fare quite well compared with similar countries, the tax system can play a more important role in promoting efficiency and

24 22 20 CCA oil exporters CCA oil importers 18 16 14 07 09 13 15 17 19 21 2005 11

Figure 9. CCA Tax Revenue: Medium Term Current Projections (Percent of GDP, unless otherwise noted)

Sources: IMF World Economic Outlook 2017; IMF Fiscal Affairs Department tax database; IMF staff calculations. Note: CCA = Caucasus and Central Asia.

<sup>1</sup>Non-oil tax revenue in percent of non-oil GDP.

burden-sharing, creating better economic opportunities (Tables 1, 2, 3).<sup>1</sup> With indirect taxation representing a large proportion of tax revenues and widespread evasion and tax exemptions, the tax burden is unequally distributed across sectors, type of enterprises (the burden falls on small and medium-sized enterprises), and individuals (oligarchs benefit from loopholes). All in all, this makes the tax system regressive and not friendly to growth.

**To this end, the need to accelerate tax reform is urgent.** Tax collection has room to increase, particularly in oil-exporting countries, and countries across the region need to address tax policy and administrative shortcomings.

Despite progress in tax policy and administration in recent years,<sup>2</sup> shortcomings remain in most CCA countries: (1) widespread exemptions in several countries reducing the tax base, particularly in the agricultural sector and in special economic zones; (2) low or no taxation of capital gains and dividends; (3) significant underreporting and tax avoidance by liberal professionals and

<sup>&</sup>lt;sup>1</sup>Value-added tax rates in the CCA range between 12 percent (Kazakhstan, Kyrgyz Republic) to a maximum of 20 percent (Armenia, Uzbekistan). Corporate income tax rates range from a very low 8 percent (Turkmenistan, Uzbekistan) to a moderate 20 percent (Azerbaijan, Kazakhstan, Tajikistan). Tax collection efficiency of VAT and corporate income tax is in general higher than comparators, particularly in Azerbaijan and Georgia, but less so in Kazakhstan. Paying taxes in the CCA is broadly in line with other country groups, except in the Kyrgyz Republic, Tajikistan, and Uzbekistan. With an average distance to frontier of 71 (with 100 being the maximum), the CCA region is close to comparators, not far from the average of high income countries (83), and much better than other regions, such as Latin America and the Caribbean (59)

<sup>&</sup>lt;sup>2</sup>For instance, Azerbaijan has modernized its taxpayer service significantly, reducing the number of taxes and, as a result, improving the indicator markedly in a few years. Armenia has introduced a modern digitalized cadaster to improve property taxes. Georgia, ranks 22<sup>nd</sup> in the Ease of Paying Taxes indicator and is addressing a large stock of VAT refund by introducing a full risk-based automation of VAT refund system.

Table 1. Tax Revenue by Category, 2015 (Percent of GDP)

	Tax Revenue	Personal Income	Corporate Income	Property	Value-Added Tax	Excise	Customs Duties	Other
CCA Commodity Exporters	16.8	1.8	4.1	0.8	4.6	1.5	1.3	3.1
Average non oil tax revenue	14.6	1.5	3.9	0.5	2.4	0.3		
Azerbaijan	15.6	1.8	4.1	0.3	6.4	1.2	0.7	0.8
Kazakhstan	15.9	1.5	4.4	0.7	2.3	0.4	2.2	4.5
of which non-oil tax revenue	11.3	1.6	3.2	0.7	2.3	0.4	2.2	
Turkmenistan	15.5	1.4	4.5	0.7	3.6	1.0		4.3
of which non-oil tax revenue	13.1	1.4	4.9	0.4	2.5	0.3		3.1
Uzbekistan of which non-oil tax revenue	20.3	2.5	3.3	1.5	6.3	3.2	0.9	2.6
CCA Commodity Importers	20.7	4.9	2.5	0.7	9.1	1.9	1.2	5.5
Armenia	20.0	6.1	2.0	0.5	8.3	1.0	1.2	1.0
Georgia	25.3	7.2	3.3	0.9	11.4	2.8	0.2	0.0
Kyrgyz Republic	20.3	1.3	2.3		7.6	1.8	2.2	3.7
Tajikistan	17.3							17.3
Upper Middle Income Oil Exporters <sup>1</sup>	18.7							
Upper Middle Income Countries	19.1	3.2	3.5	0.6	7.0	2.2	2.1	
Lower Middle Income Countries	17.0	2.9	2.8	0.2	6.1	2.2	2.5	
Advanced Economies	25.7	8.7	3.1	1.8	7.2	2.5	0.2	

Sources: National authorities; IMF Fiscal Affairs Department tax database; and IMF staff estimates.

Note: "..." 5 not available.

Table 2. CCA Non-Oil Tax Collection Efficiency, 2015 (Percent, 100 is best)

	Value-Added Tax Efficiency <sup>1</sup>	Corporate Income Tax Collection Efficiency <sup>2</sup>
Azerbaijan	71	17
Kazakhstan	35	16
Turkmenistan		18
Uzbekistan	57	43
Armenia	53	10
Georgia	93	22
Kyrgyz Republic	78	23
Tajikistan	62	
Lower-middle-income countries	37	10
Upper-middle-income countries	58	17

<sup>&</sup>lt;sup>1</sup>Includes Algeria, Colombia, Ecuador, Iran, Russia.

Sources: IMF Fiscal Affairs Department tax database 2017; World Econonomic Outlook 2017; KPMG; and IMF staff calculations.

Note: "..." 5 not available. Tajikistan and Turkmenistan partly omitted due to missing data.

1VAT Efficiency 5 VAT revenue divided by the product of the VAT rate and total private consumption.

2CIT Collection Efficiency 5 CIT to GDP ratio divided by the CIT rate; Azerbaijan, Kazakhstan, and Turkmenistan show non-oil CIT efficiency.

Table 3. World Bank Doing Business Indicators 2017: Paying Taxes

	Paying Taxes Distance to Frontier	Paying Taxes Rank	Payments (number per year)	Time (hours per year)	Total Tax Rate (% of profit) <sup>1</sup>	Postfiling Index (0–100) <sup>2</sup>
Regions						
East Asia and Pacific	72.2		22.9	198	33.9	59.6
Europe and Central Asia	76.6		17.6	221.5	33.8	71.2
Latin America and Caribbean	58.6		28.9	342.6	46.3	44.0
Middle East and North Africa	77.3		17.8	208.2	32.3	65.7
OECD high income	83.1		10.9	163.4	40.9	85.1
South Asia	58.3		31.8	283.9	40.9	45.0
CCA Countries						
Armenia	72.5	88	14	313	18.5	49.1
Azerbaijan	83.5	40	6	195	39.8	81.0
Georgia	87.4	22	5	270	16.4	87.2
Kazakhstan	79.5	60	7	178	29.2	49.1
Kyrgyz Republic	56.4	148	51	225	29	36.9
Tajikistan	58.8	140	12	258	65.2	41.8
Uzbekistan	59.1	138	46	192.5	38.1	47.0
CCA average	71.0	90.9	20.1	233.1	<b>3</b> 3.7	56.0

Source: World Bank, Doing Business, 2017

Note: "..." 5 not available.

business not subject to the regular tax regime; (4) difficulty of auditing natural persons (including high net worth individuals) encouraging tax fraud and evasion; (5) complex property tax systems leaving a large number of properties undeclared; and (6) significant tax arrears, collection enforcement, and dispute resolution.

# Country-specific recommendations to make the tax system fairer and more growth-friendly include:

- *Simplify the value-added tax (VAT):* fewer rates and a broader base (reduce exemptions).
- Broaden the tax base by rationalizing exemptions in all type of taxes. Moving large agro-businesses (Armenia, Kyrgyz Republic), higher education and medical services (Armenia), and Special Economic Zones (Azerbaijan, Kazakhstan, Kyrgyz Republic) to the regular tax system where they pay taxes on income and VAT. Review taxation of Free Economic Zone firms by targeting tax incentives on investment and employment rather than on profitability, limiting tax preferences to indirect taxes but not to direct (profit taxes).
- *Increase revenue productivity of excise taxes*. Limit excises to a selected list of products while improving its targeting for cellular airtime and gambling (Armenia), besides the usual ones for tobacco and beverages (Kyrgyz Republic), while doubling the excise on petroleum products (Kyrgyz Republic).

<sup>&</sup>lt;sup>1</sup>The total tax rate measures the amount of taxes and mandatory contributions payable by a business as a share of commercial profits. The total amount of taxes is the sum of five different types of taxes and contributions after accounting for deductions and exemptions: corporate income tax, social contributions and labor taxes paid by the employer, property taxes, turnover taxes, and other small taxes.

<sup>&</sup>lt;sup>2</sup>Postfiling index is based on the time to comply and obtain tax refunds and to comply and complete a tax audit.

- Eliminate broad based turnover tax on all businesses. (Kyrgyz Republic).
- Simplify corporate taxation by eliminating multiple rate structures at firm level. (Kyrgyz Republic).
- Simplify taxation of small businesses through flat rates, with two regimes for small and micro-business: a patent system for micro-businesses; and a presumptive tax based on turnover for small business, including for small farmers (Armenia, Kyrgyz Republic).
- *Reform taxation of mineral resources* in conformity with best international practices to capture a fair share of the rent for the budget (Kyrgyz Republic).
- *Improve the progressivity of personal taxation* by raising the threshold for exempted income and introduce graduated rates (Armenia).
- Tax capital income (Armenia).
- Enhance property taxation with a modern and simplified system, which focuses on the taxable asset (land and property) instead of on income and rate graduations. Substitute current system with an appropriate value threshold to protect the poor (Georgia) and by aligning cadastral value more closely with market levels to increase revenue productivity (Kyrgyz Republic).
- Revamp the tax and customs administration—including through strengthening large taxpayer units and introducing risk-based compliance systems—need to accompany the changes in tax policy.

### Streamlining and Increasing Efficiency of Public Spending

Most CCA countries have a relatively moderate wage bill, averaging around 6 percent of GDP. Some countries, however, such as the Kyrgyz Republic and Uzbekistan, have relatively high ratios, hovering around 9 percent of GDP.<sup>3</sup> Over the medium term, oil exporters, except Uzbekistan, are planning to stabilize their wage bill at around 5.5 percent of GDP; oil importers, except Georgia, are projecting lower wage bills (Figure 10).

These moderate wage bills, however, mask structural weaknesses requiring urgent civil service reform. In most CCA countries the share of public-sector employment is high, particularly among oil exporters (Figure 11). In several countries, allowances, low recruitment standards, and lack of connection between performance and promotion have proliferated. Reducing these inefficiencies, and raising public-sector productivity and efficiency, requires comprehensive reform of civil services and salaries.

<sup>&</sup>lt;sup>3</sup>These ratios only include general government employment, not total public-sector employment (that includes SOEs), which for Kazakhstan is substantial given the magnitude of public enterprises in the economy.

2005

07

09

CCA oil exporters
CCA oil importers

13

15

17

19

21

Figure 10. CCA Wage Bill – Medium-Term Current Projections (Percent of GDP)

Source: IMF Middle East and Central Asia Department Regional Economic Outlook 2017. Note: CCA = Caucasus and Central Asia.

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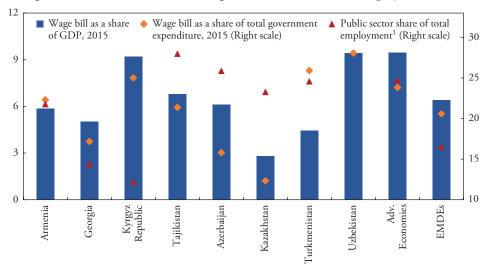


Figure 11. General Government Wage Bill and Public-Sector Employment

Source: IMF World Economic Outlook 2017, World Bank, International Labour Organization, National Authorities, staff estimates.

Note: "Adv. Economies" = Advanced Economies. "EMDEs" = "Emerging Market and Developing Economies". 
<sup>1</sup>Based on ILO 2013–14 estimate; The public sector comprises persons employed by the general government and public corporations. Unavailable for Uzbekistan. Source of Turkmenistan share is the authorities; Source of Tajikistan share is World Bank.

Further reform of energy subsidies will create additional fiscal space for better- targeted social spending. Although several CCA countries have taken encouraging steps to reform energy subsidies, price gaps—the difference between domestic prices and international benchmarks—remain

Table 4. CCA: Pre-Tax Energy Subsidies<sup>1</sup>

(Percent of GDP, 2015)

	2013	2015
Armenia	0.06	0.04
Azerbaijan	3.08	1.03
Georgia	0.00	0.00
Kazakhstan	0.82	0.80
Kyrgyz Republic	14.76	8.16
Tajikistan	3.34	3.30
Turkmenistan	16.23	10.70
Uzbekistan	18.21	11.91
Average CCA Oil Importers	4.54	2.88
Average CCA Oil Exporters	9.58	6.11
Average selected EMDC	0.89	0.52
of which: selected EM oil exporters	3.61	1.86

Source: Fiscal Affairs Department Energy Subsidy estimates.

Note: CCA = Caucasus and Central Asia. EM = Emerging markets. EMDC = Emerging market and developing countries.

substantial (Table 4).<sup>4</sup> This is particularly acute in the Kyrgyz Republic, Turkmenistan, and Uzbekistan, and to a lesser extent in Tajikistan.

Natural gas and oil account for the largest share of subsidies among oil exporters, while oil and electricity account for the bulk of subsidies in some oil importers, such as in the Kyrgyz Republic. Although energy subsidies aim to help the poor, in fact they benefit the highest income households more.

CCA countries should take advantage of relatively low oil prices to take stronger steps to reform energy subsidies. Key elements of a comprehensive energy subsidy are (1) formulating an integrated reform strategy by better aligning energy prices to market and cost recovery levels to reduce budgetary costs, (2) creating incentives to reduce energy intensity and inefficiency, and (3) reducing existing leaks to privileged segments of the population while strengthening the focus on vulnerable segments through better registry systems and better targeted social safety nets. It also includes (4) refraining from ad hoc adjustments.

Some reorientation of public investment is needed to support the new growth model. The level of public investment varies considerably across countries, with some (Georgia, Turkmenistan) close to the emerging market

<sup>&</sup>lt;sup>1</sup>Pre-tax energy subsidies, including oil, coal, natural gas, and electricity estimated based on the difference between the price paid by energy consumers and the international price including transport and distribution costs, multiplied by consumption.

<sup>&</sup>lt;sup>4</sup>Total pre-tax cost of energy subsidies using the IMF's Fiscal Affairs Department world energy subsidy estimates. The amounts may differ from the explicit amounts that appear in the budget, since, in several cases, the cost of pre-tax consumer subsidies may be incurred by SOEs, such as in those that sell electricity or petroleum products below supply costs. If the government fully finances these losses with a transfer, the consumer subsidy will be reflected in the budget as expenditure and financed through higher taxes, increased debt, or higher inflation if the debt is monetized. In many instances, however, the subsidy may be financed by the SOE and reflected in its operating losses or lower profits, lower tax payments to the government, the accumulation of payment arrears to its suppliers, or a combination of all three (IMF 2013c).

**Table 5. Public and Private Investment** 

(Percent of GDP, 2015)

	Public	Private
CCA Commodity Exporters	7.3	21.5
Azerbaijan	16.4	15.3
Kazakhstan	4.5	20.2
Turkmenistan <sup>1</sup>	6.6	
Uzbekistan	1.7	29.1
CCA Commodity Importers	7.5	15.1
Armenia	2.9	17.8
Georgia	5.6	22.8
Kyrgyz Republic		
Tajikistan	13.8	4.7
Emerging and developing economies	8.7	22
Advanced economies	3.5	17.4

Source: IMF World Economic Outlook, 2017.

Note: "..." 5 not available.

and developing economies average and others (Azerbaijan and Tajikistan) much larger (Table 5).

A large part of public investment, however, is not fully effective, economically or socially. It should be reoriented toward projects that support diversification, education, and health, whose budgetary levels are in general below emerging market and developing economies and which are highly needed to boost productivity and economic growth (Figure 12).

Moreover, it is critical to boost the efficiency and productivity of public investment. The average efficiency in the CCA region, measured using a frontier approach,<sup>5</sup> is below estimates for low-income and emerging market economies (Table 6). In high efficiency countries—for example, Armenia, Azerbaijan, and Georgia—an increase in public investment represents an opportunity to close infrastructure gaps and to boost short- and medium-term growth. In low-efficiency countries—such as Kazakhstan, the Kyrgyz Republic, and Tajikistan—structural reforms that increase efficiency and productivity should be considered before embarking on large public investment projects that may cause fiscal sustainability concerns.<sup>6</sup>

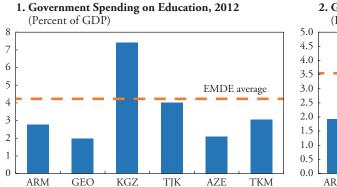
Significant room exists to improve infrastructure quality in the CCA. While the region's infrastructure quality is in line with that of emerging

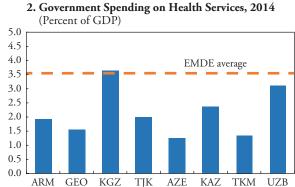
<sup>&</sup>lt;sup>1</sup>This is on-budget investment; taking into account investment of state-owned enterprises, gross investment is estimated at 47 percent of GDP.

<sup>&</sup>lt;sup>5</sup>The score ranges between 0 and 1, where 1 represents perfect efficiency and 0 perfect inefficiency. The frontier is made up of efficient combinations of infrastructure quality as measured in the World Economic Forum's Global Competitiveness Index and public capital stock per capita in 2014. See IMF (2015) for a detailed explanation of the methodology. Nonetheless, it should be noted that a country like Azerbaijan might be efficient in public investment but its net marginal IRR on public projects is negative (that is, it is over investing, as shown in the substantially high level of public investment to GDP, Table 5).

<sup>&</sup>lt;sup>6</sup>Alter, Ghilardi, and Hakura (2017) show that significant welfare gains are associated with timely structural reforms that boost public investment productivity.

Figure 12. CCA Region: Government Spending on Social Services





Source: World Development Indicators.

Note: CCA = Caucasus and Central Asia. ARM = Armenia. GEO = Georgia. KGZ = Kyrgyz Republic. TJK = Tajikistan. AZE = Azerbaijan. KAZ = Kazakhstan. TKM = Turkmenistan. EMDE average = average for Emerging Market and Developing Economies group. Kazakhstan (KAZ) and Uzbekistan (UZB) omitted from left chart for lack of data.

Table 6. Public Investment Efficiency, Distance to Frontier

CCA commodity exporters	0.79
Azerbaijan	0.94
Kazakhstan	0.65
Turkmenistan	
Uzbekistan	
CCA commodity importers	0.71
Armenia	0.79
Georgia	0.86
Kyrgyz Republic	0.57
Tajikistan	0.61
Emerging market economies	0.78
Low income developing economies	0.77
Advanced economies	0.89

Source: International Monetary Fund (2015).

Note: "..." 5 not available.

market economies, significant improvements are required, particularly in the quality of air transport, roads, and ports (Figure 13).<sup>7</sup> Similarly, the quality of health spending needs to improve, as all the CCA countries, except Armenia, fall below the health efficiency frontier (Figure 13).

The efficiency and quality of public spending could be improved substantially by introducing a comprehensive public investment management framework that would help streamline nonessential spending through stricter selection and monitoring of investment projects with high growth and social impacts.<sup>8</sup>

<sup>&</sup>lt;sup>7</sup>The quality of investment index has been computed using the IMF's Expenditure Assessment Tool.

<sup>&</sup>lt;sup>8</sup>See Ghilardi and Sola (2016) for an analysis of efficient ways of implementing fiscal adjustments in countries with low public investment efficiency.

1. CCA Capital Stock and Infrastructure Quality, 2015 2. Health Efficiency Frontier, Latest Value Available 150 80 75 120 90 Emerging Market and Developing ŏ 60 8 Economies average 30 Quality Ranking: 1 = best, 144 = worst Public Capital Stock, percent of GDP 35 Ports Overall Roads Railroads Infrastructure Air Transport 30 0 1500 2000 2500 3000 Total health expenditure per capita, purchasing power parity dollars Kyrgyz Republic ▲ Azerbaijan EMs Tajikistan Armenia Turkmenistan Kazakhstan ▲ Georgia Uzbekistan

Figure 13. CCA Assessment of Expenditure Quality and Efficiency

Sources: World Development Indicators; IMF Investment and Capital Stock Dataset; World Economic Forum; IMF Fiscal Affairs Department Expenditure Assessment Tool; and *World Economic Outlook*.

Note: CCA = Caucasus and Central Asia. EMs = Emerging Markets. Countries with unavailable data for a given category are omitted from that column.

Sources: World Bank; World Health Organization; and IMF Fiscal Affairs Department Expenditure Assessment Tool. 

<sup>1</sup>Healthy expectancy is equal to the number of years in a person's life expected to be lived at full health.

#### **CHAPTER**

# 5

### **Strengthening Fiscal Policy Frameworks**

To enhance the credibility and sustainability of fiscal adjustment, stronger fiscal frameworks are needed. This could include improving public financial management and anchoring policies on well-defined long-term paths, for example through rules-based fiscal policy, and promoting transparency, credibility, and accountability.

#### Public financial management systems need to be further strengthened.

The main areas for improvement include: (1) expanding coverage of the fiscal and public-sector accounts to fully capture extra-budgetary funds, and local government and SOE operations, and (2) developing strategic medium-term plans. Best international standards include (IMF 2014):

- development of comprehensive medium-term fiscal frameworks, budget classification, program budgeting, and public procurement;
- quantification and reporting in the budget of main quasi-fiscal activities, implicit energy subsidies, and contingent liabilities;
- strengthened fiscal risks management and disclosure and the ways to address them (including those associated with public-private partnerships (PPPs) and SOEs);<sup>1</sup>
- enhanced public investment management to help ensure that government spending plans are efficient and will yield economic and social benefits;
- improved budget transparency, public participation, and oversight by, among other initiatives, producing and publishing a pre-budget statement and a midyear review, and increasing the comprehensiveness of the yearend report; and establishing credible and effective mechanisms (that is, public

<sup>&</sup>lt;sup>1</sup>Some CCA countries have started to improve the disclosure of fiscal risks. For example, Armenia and Georgia include disclosure of risks in the budget documentation and Tajikistan has developed a fiscal risk statement.

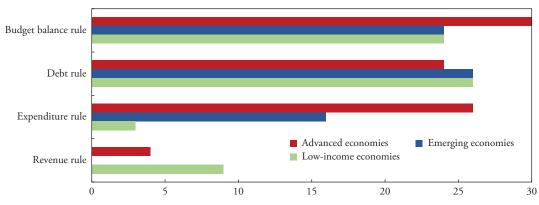


Figure 14. Frequency of Fiscal Rules in the Countries of Different Income Levels

Source: IMF Fiscal Affairs Department Fiscal Rules Dataset, 1985–2015. Note: includes countries with at least one national fiscal rule.

hearings, surveys, and so on) for capturing different public perspectives on budget matters; and

stronger public-sector statistics.

CCA countries could also benefit from well-designed fiscal rules.<sup>2</sup> Over the past two decades, using fiscal rules to guide policies has become common practice around the world. These rules typically apply limits on indicators for overall fiscal performance—typically government debt, budget balance, or total expenditure (Figure 14). In the early 1990s, only five advanced economies followed such rules. By the end of 2015, the number of countries with fiscal rules surged to 92, of which more than 60 percent were emerging market and developing economies (see Duarte Lledo and others 2017).

Among CCA countries, currently Armenia (2008), Georgia (2014), and Kazakhstan (2016) follow fiscal rules, while Azerbaijan and the Kyrgyz Republic are considering such rules (see Appendix 3). Fiscal rules can enhance fiscal policy credibility, reduce fiscal bias, and support long-term sustainability. Reaching these objectives would require adoption of the following general principles:

- Introducing formal enforcement procedures to make fiscal rules binding on the outturn;
- Expanding coverage to general government to avoid incentives for the central government to shift unfunded spending responsibilities to local governments.

<sup>&</sup>lt;sup>2</sup>The adoption of fiscal rules should be accompanied by structural reforms that aim at improving governance and accountability in the public sector.

- Include a plan to bring back deficits and expenditures when there are indications that current year's outturn will breach the rules' limits.
- Enhance strategies to communicate targets and ways to achieve them.
- Introduce well-defined escape clauses.

The choice of a fiscal rule should be based on structural and country-specific factors. As Kopits and Symansky (1998) highlights, a "good fiscal rule should promote fiscal sustainability and economic stabilization through a simple and reliable framework." Some CCA countries have or are implementing one of the three main types of operational rules most commonly used in emerging markets: (1) a debt rule (Armenia), (2) a budget-balanced rule (Kazakhstan), and (3) an expenditure rule. Georgia's fiscal rule is a combination of the three.

While these rules may be sufficient for oil-importing countries, commodity exporters should consider rules that take into account the volatility of commodity prices and the depletion of natural resources, namely (1) a revenue split rule, (2) a price smoothing rule, (3) and structural balance rules.<sup>3,4</sup>

<sup>&</sup>lt;sup>3</sup>See IMF (2017b) for a detailed discussion of the pros and cons of each rule.

<sup>&</sup>lt;sup>4</sup>See IMF (2016b) for a discussion of how to rebuild buffers with oil price uncertainty and volatility.

#### CHAPTER

# 6 Stepping up Structural Reforms to Support Pro-Growth Consolidation

The effectiveness of growth-friendly fiscal policy is greatly enhanced when accompanied by complementary structural reforms that promote private-sector led growth and economic diversification, boost productivity, enhance competitiveness, and create jobs.

More ambitious and broader structural reforms are necessary for enhancing a growth- friendly business environment that promotes diversification and reduces excessive reliance on commodities and labor exports. Throughout their transition, CCA countries have advanced first-generation reforms (privatization, price liberalization) as required by a market-based economy. But they have lagged in reforms that deepen and sustain markets and foster the business climate for private investments. Labor market reform has advanced significantly in several countries, but corruption and cumbersome bureaucracy remain major hurdles for growth-friendly business activity, while closing infrastructure gaps, improving quality of education, and expanding access to finance (particularly for small and medium-size enterprises) remain priorities (Figure 15). Georgia is in the front line for advancing reforms in several areas.

Better labor market regulations and human capital development are needed to buttress job creation. Labor market regulations have substantially improved in Azerbaijan, Georgia, and Kazakhstan, but need to be revamped in the rest of the CCA to facilitate job creation. Human capital development is a major concern across most of the region. Likewise, public spending on education needs to be raised and improved in many countries to better align education and workers' skills with private sector needs.

**Good governance is essential to promote growth and private sector development.** While most CCA countries have lagged, Georgia has significantly improved governance by enhancing the accountability of the public sector.



Figure 15. Structural Reform Progress in the CCA, 2016

Sources: World Bank; World Economic Forum; PRS Group; IMF staff calculations. Note: CCA = Caucasus and Central Asia. Data unavailable for Tajikistan, Turkmenistan, and Uzbekistan.

Armenia has also made progress in fighting corruption. While Kazakhstan has made improvements in the rule of law and the control of corruption since the mid-2000s, governance indicators have deteriorated in Turkmenistan and Uzbekistan over the same period. Azerbaijan, the Kyrgyz Republic, and Tajikistan have yet to improve the rule of law and fight corruption.

Given the limited fiscal space across the region and the projected reduction in public investment, it is also crucial to proceed with SOE reform and further privatization. Plans in Georgia to strengthen the monitoring of contingent liabilities from PPPs and SOEs are steps in the right direction for reducing fiscal risks, as are Tajikistan's measures for improving the delivery of public services with expected positive social and economic impacts.

Privatization of SOEs promises greater productivity and efficiency and positive impact on public finances by reducing the implied costs of quasi-fiscal operations and transfers.

#### CHAPTER

## 7

## **Conclusion and Main Recommendations**

Since 2014, large and persistent external shocks have hit the CCA region, particularly a slump in global commodity prices and slower growth in its key economic partners. Fiscal accommodation, along with currency adjustment, has helped the CCA mitigate the impact of the external shocks. However, amid weakening revenues, increased public spending has widened budget deficits, weakened external balances, and increased public debts.

Fiscal policy and strengthening fiscal frameworks must play a central role in helping build buffers and ensuring debt sustainability while supporting growth. This requires (1) tightening fiscal policies to reduce deficits to help restore external balance and fiscal sustainability, (2) strengthening tax systems and tax collection and tilting expenditure toward a more productive and growth-enhancing composition, and (3) implementing public financial management reforms and strengthening fiscal institutions, including through fiscal rules.

Enhancing revenue mobilization by improving the efficiency and fairness of the tax system will be critical for consolidation efforts. Reforms in this area should focus on (1) rationalization exemptions to broaden the tax base, (2) implementing excise taxes selectively, (3) eliminating broad-based turnover tax on all businesses, (4) avoiding multiple tax rate structures on companies, (5) simplifying taxation of small businesses, and (6) revamping tax and customs administration—including through strengthening large taxpayer units and introducing risk-based compliance systems.

Rationalizing non-priority expenditures while prioritizing pro-growth capital spending and safeguarding social expenditures will be critical. Priority areas that could be examined for rationalization include (1) the government wage bill, especially where public-sector wages and employment are high relative to the private sector, and (2) further reform of energy subsidies while strength-

ening poorly targeted social safety nets. Prior to considering large scale-ups of public investment, reforms to boost efficiency and productivity should be implemented.

Institutional improvements and strengthening fiscal policy frameworks will also be vital. Sound public financial management institutions will be important to enable implementation of adequate fiscal policies. Fiscal rules can also play an important role in safeguarding fiscal credibility, and thus, fiscal space. If well designed, fiscal rules can support short- and medium-term objectives while leaving flexibility in the face of shocks or exceptional circumstances.

Last, but not least, an ambitious structural reform agenda to promote inclusive growth needs to complement fiscal consolidation and reforms. This requires a stronger business climate and export diversification through better governance, enhanced competition, improved labor markets, and less bureaucracy.

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### Annex 1. The Fiscal Policy Reaction Function

A fiscal response function provides a useful tool to study fiscal policy behavior in response to shocks. A fiscal response function needs to capture both the fiscal authorities' responses to deviations from fiscal targets as well as the response of the fiscal position to changes in the economic environment. Perhaps the most simple—and also most intuitive—fiscal response function used in the empirical literature assumes that the fiscal authorities adjust the fiscal position (balance as a percent of GDP (b(t)) to correct for a constant share of the difference between last year's fiscal balance (b(t-1)) and the targeted fiscal balance (b\*(t)), while the response of the fiscal position to changes in the economic environment is captured by allowing the fiscal position to fluctuate with deviations of output growth  $\Delta y(t)$  from the smoothed growth rate  $\Delta y^*(t)$ :

$$b(t) - b(t-1) = \alpha [b^*(t)-b(t-1)] + \beta [\Delta y^*(t)-\Delta y(t)] + \varepsilon(t),$$

where  $\alpha$  denotes an error-correction coefficient,  $\beta$  is the size of the response of the fiscal position to output fluctuations, and  $\varepsilon(t)$  is an error term capturing all other influences on the fiscal position. This fiscal response function can be used descriptively to study the behavior of fiscal policy over a past period, but it can also be used normatively to prescribe budget planning.

<sup>&</sup>lt;sup>1</sup>This equation can be extended to account for other fiscal target variables, for example public debt, as well as other variables capturing the impact of the economic environment on the fiscal position, including changes in terms of trade of shifts in asset prices. For the purposes of this paper, a simple reaction function is sufficient.

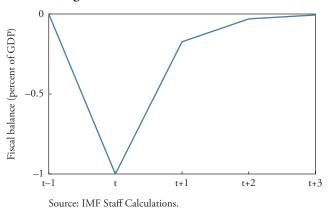
<sup>&</sup>lt;sup>2</sup>Serbia's Fiscal Responsibility Law of 2010 prescribed that budgets presented to parliament should be constrained by a fiscal rule based on equation (1), with the coefficients  $\alpha$  and  $\beta$  fixed at 0.40 and 0.30, respectively; b\*(t) was fixed at -1 percent of GDP, and  $\Delta y$ \*(t) at 2 percent.

Annex Table 1. Results: Fiscal Policy Reaction Function, 2000-2013

	а	b	Standard Error	R <sup>2</sup>
Azerbaijan	0.99	20.35	5.60	0.57
Kazakhstan	0.64	0.90	1.42	0.73
Turkmenistan	0.95	0.23	2.50	0.58
Uzbekistan	1.01	0.50	2.40	0.56
Armenia	0.84	0.21	1.20	0.72
Georgia	0.59	0.12	1.90	0.33
Kyrgyz Republic	0.65	0.24	1.90	0.47
Tajikistan	0.93	0.13	2.10	0.37
Average	0.83	0.25	2.38	0.54

Source: IMF Staff Calculations.

Figure 1.1. Responsiveness of Fiscal Balance to a Negative Shock of 1 Percent of GDP at Time t



Annex Table 1 reports estimates of the fiscal response function (1) for 2000–13. The time series for the fiscal balance target ( $b^*(t)$ ) and the smoothed output growth rate ( $\Delta y^*(t)$ ) were based on a Hodrick-Prescott (HP) filter, using a HP smoothing parameter of 50. Results were robust to variations of the smoothing parameter across a wide range.

The estimates in the table suggest two broad conclusions regarding fiscal policy behavior during 2000–13: First, the estimates of the error-correction coefficient α are very high, indicating that across the region a large share (about 80 percent) of the deviation from the fiscal target in year t-1 is already corrected in the next year t. The rapid correction of fiscal imbalances is illustrated by Annex Figure 1.1, which shows that a 1 percentage point deterioration in the fiscal balance in year t is almost fully corrected by the time we reach year t+2. And second, the estimates of the coefficient capturing the response of the fiscal position to fluctuations in output growth around

trend  $(\beta)$  indicate that fiscal positions in most countries tend to fluctuate pro-cyclically.

In fact, across the region, the size of  $\beta$  is in line with the expected size of automatic fiscal stabilizers—roughly the average revenue-GDP ratio across countries if the automatic elasticity of revenue with respect to GDP is one. Only in the case of Azerbaijan, fiscal policy seems to respond countercyclically to output fluctuations.

The response functions can also be used to estimate the path of fiscal balances during 2014–16 that would have obtained if policy would have followed the behavior seen during 2000–13.

### Annex 2. Gross and Net Debt Concepts

Gross and net debt are important indicators of fiscal sustainability and vulnerability. Gross debt is the most reported measure of public-sector debt and is commonly used in the formulation of fiscal rules. It is defined as the sum of the liabilities that are held in debt instruments. However, governments hold a series of financial assets that may reach a substantial size, especially in oil exporting-countries. In those countries, focusing on gross public debt only could result in a misinterpretation of the fiscal sustainability position, distorting the formulation and implementation of fiscal policies. Even if not commonly used, in these countries, a more appropriate measure is an indicator of net debt or net financial worth as it takes in consideration the total wealth of the country. This is defined as public debt minus financial assets.

Given low financial assets in Armenia, Georgia, Kyrgyz Republic and Tajikistan, the concept of gross public debt is used in analyzing their fiscal position. Azerbaijan and Kazakhstan hold substantial financial assets in their respective sovereign wealth funds. At the end of 2016, the level of financial assets held by the government of Azerbaijan amounted to \$33 billion, or 88 percent of GDP. At the end of the same period, the government of Kazakhstan held \$58 billion or 44 percent of GDP in its National Fund. For these two countries, the concept of net debt or net financial worth would be more appropriate and therefore it is used in this paper. Due to data availability, the paper does not include government guarantees in the definition of debt.

## **Annex 3. Caucasus and Central Asian Countries: Stance of Fiscal Rules**

Annex Table 2.	Annex Table 2. CCA Countries: Stance of Fiscal Rules	nce of Fiscal Rules			
		Type of Rule		Characteristics	
Countries	Type of National Rule/year of implementation/ coverage	budget balance rule; debt rule; expenditure rule; revenue rule	Description	Formal enforcement procedure/ Independent body sets budget assumptions/independent body monitors implementation/ well-specified escape clause	Additional Comments
Oil Exporters Azerbaijan Azerbaijan Kazakhstan	No Yes/January 2018/ central government		In December 2016, a new framework for the Oil Sovereign Fund was approved to be effective in January 2018. Main changes to the existing rules are: (1) lower level of guaranteed transfers by 2020 to reduce gradually the dependence from oil revenues; (2) minimum balance kept above 30 percent of GDP; (3) budget should target a gradual decline of the nonoil deficit to 7 percent in 2020 and 6 percent in 2025; acquisition of securities issued in Kazakhstan is forhiden	As in the current framework, the level of targeted transfers is decided by the President of the Republic of Kazakhstan on a discretionary basis.	Currently uses an ad-hoc fiscal policy framework with three main elements: (1) an ad-hoc rule to save % of il revenue abroad in a well-managed oil fund (SOFAZ); (2) using % of transferred oil-fund revenue to finance investment, and (3) rolling non-binding three-year budget plans. The system is pro-cyclical (tightly linked to oil prices), lacks focus on longterm non-oil sustainability and is biased toward excessive public investment. The authorities intend to move to a rule-based fiscal framework. A modified permanent income (PIH) model, which relies on a non-resource primary balance (NRPB) target (as a percentage of non-resource GDP), can be used to guide optimal consumption-savings decisions. A new fiscal responsibility law will be needed to set new procedural rules, fiscal (numerical) rules, transparency standards, and a surveillance and enforcement mechanisms.
Turkmenistan Uzbekistan	N O ON				The government aims informally at balanced budget
					at all levels of government.

<b>Oil importers</b> Armenia	Yes/2008/central	Debt rule Does	Public debt may not exceed 60 percent	ou/ou/ou	
	government	not exclude public investment	of GDP in any given year. If ratio over previous year's GDP exceeds 50 percent, the deficit in the following year should be lower than 3 percent of the average GDP of the previous three years. In 2015 Definition of public debt changed to apply only to government debt, excluding central bank's debt.		
Georgia	Yes/2014/general government for expenditure rule and debt rule, central government for budget balance rule	Expenditure rule/budget balance rule/debt rule	Ratio of expenditures and increase in non-financial assets to GDP of consolidated budget to the GDP shall not exceed 30 percent. Ratio of consolidated budget deficit to GDP shall not exceed 3 percent. Ratio of Public Debt to GDP shall not exceed 60 percent. All rules have been specified in the Liberty Act, an organic law.	yes/no/no/yes	
Kyrgyz Republic	<b>Q</b>				Does not have fiscal rules. Previously, the budget code prescribed a limit on external debt of 60 percent of GDP. However, the new budget code no longer contains a debt limit, but instead prescribes that the debt limit be determined annually in the contact of the budget law.
Tajikistan	UO U				No formal fiscal rule. The authorities are working on a medium term fiscal strategy.

Sources: IMF Fiscal Rules Dataset, 2016; staff additional information.