

IMPACT OF THE COVID-19 PANDEMIC ON MUNICIPAL FINANCE



WORLD BANK GROUP

Urban, Disaster Risk Management, Resilience & Land

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ON MUNICIPAL FINANCE**

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Abbreviations

AE	advanced economy
AFE	Africa Eastern and Southern
AFW	Africa Western and Central
CAPEX	Capital Expenditure
COVID-19	coronavirus disease of 2019
EAP	East Asia & Pacific Region
ECA	Europe & Central Asia Region
EMDEs	Emerging Markets and Developing Economies
EU	European Union
FY	Fiscal Year
GAF	General Accounting Framework
GDP	Gross Domestic Product
GPURL	Urban, Disaster Risk Management, Resilience, and Land Global Practice
IFC	Internal Financial Corporation
IGT	Inter-governmental Transfer
IMF	International Monetary Fund
LCR	Latin America & Caribbean Region
LG	Local Government
MFSA	Municipal Finance Self-Assessment
MNA	Middle East & North Africa Region
O&M	Operations and Maintenance
OSR	Own Source Revenue
PIT	Personal Income Tax
SAR	South Asia Region
SD	Sustainable Development
SSA	Sub-Saharan Africa
VAT	Value Added Tax
WB	The World Bank
WDI	World Development Indicator
WHO	World Health Organization
YoY	Year-on-Year

EXECUTIVE SUMMARY

Local Governments (LGs) have been at the frontline of COVID-19 response and recovery efforts, but they have faced multiple challenges in finding adequate financial resources to meet competing needs. Improving LGs' financial capacity and ensuring adequate financial resources for efficient response to COVID-19 has been identified as one of the World Bank's Response Priorities to COVID-19. This report analyzes the COVID-19 impact on city LGs' financial situation through cross-country analysis and comparison, discusses the three indicative types of LG budgetary adjustments, and examines the risks and uncertainties associated with the path of the pandemic's impact and subsequent economic recovery through scenario analysis.

The COVID-19 pandemic has had a serious but manageable impact on the financial health of cities given that the economic recovery can be sustained as the pandemic passes, although the financial risks remain high for all cities because the pandemic is still ongoing with high levels of uncertainty. The COVID crisis highlighted the important role of robust and diversified revenue streams and timely support from higher-level tiers of government in weathering the shocks. Cities have chosen different paths to adjust their expenditure to moderate the impact of revenue shocks based on their financial conditions and the severity of the impact. The recovery could be slow and fragile for cities with weaker financial capacity. Building fiscal resilience and capacity will be important to crisis response.

The report draws upon the data and findings from the 15 case studies¹ on COVID-19 impact on city finances. These cases cover 10 countries in 7 World Bank regions with city per capita income ranging from upper-middle, to lower-middle, to low-income country groups, and city population ranging from about 58,000 (Kisela Voda) to 11 million (Chennai). Some of the cities have been heavily affected by COVID-19 outbreaks, e.g. as of May 30, 2021, Chennai reported 491,197 COVID cases, Nairobi reported 43 percent of the total number of cases in Kenya, and Sibiu reported 56 cases per 1000 people. The report applies scenario analysis to address the high uncertainty nature of the pandemic. The base scenario represents the most likely situation based on the available data, and the pessimistic scenario refers to the situation where the impact of COVID-19 is assumed to be severe and prolonged.

COVID-19 has significantly impacted the cities' current revenue, but the magnitude of the impact is varied. In most cases, the impact on revenue can be contained in the short run as revenue positions are expected to start to recover in the second or third year of the pandemic. However, these cities will not see their revenue return to pre-COVID levels before the end of that two to three fiscal year (FY) period.

The cities' Own Source Revenue (OSR) is estimated to have dropped significantly in the first year of the pandemic in most cases except for Sibiu and Ahmedabad. Most cities are expected to see their OSR start to recover over the course of two to three years, before returning fully to pre-COVID levels. Decline in OSR is driven by both reduced or suspended economic activities and tax relief measures. Property tax, which is a major local tax component in OSR, is expected to be heavily impacted.

¹ The report referenced fifteen city case studies from Bolivia (selected cities), Bosnia and Herzegovina (Banja Luka, Tuzla), Colombia (Selected Cities), India (Ahmedabad, Chennai, Surat), Indonesia (Semarang), Kenya (Nairobi, Mombasa), Liberia (Monrovia), Morocco, North Macedonia (Kisela Voda, Gazi Baba), and Romania (Sibiu).

Inter-governmental Transfer (IGT) plays an important role in supporting local governments during the crisis.

In the first year of the pandemic, all LGs in the case studies were affected by the decline in IGT except Sibiu, Chennai, and Ahmedabad. Over two to three years, IGT for most LGs will recover but will still stay below pre-COVID levels except for Sibiu, Chennai, Surat, and Monrovia.

The impact on LG expenditure is driven by a combination of factors including LGs' fiscal capacity before COVID, and the magnitude of the revenue shock caused by the pandemic as well as support from higher levels of government.

Overall, LGs adjust their recurrent expenditures by prioritizing expenditures related to their COVID response and ensuring basic service delivery. Cities that entered the pandemic with a relatively strong fiscal position or received strong support from higher levels of government have more room to absorb revenue shocks and adjust recurrent expenditures. Looking at the aggregate impact over the two to three fiscal year period, recurrent expenditure for all LGs will return to pre-COVID levels except for Nairobi, Mombasa, and Semarang.

Capital expenditure (CAPEX) in most cities has been affected more significantly than recurrent expenditure.

Cities with adequate fiscal capacity or strong IGT funding support are estimated to have continued with their planned investment programs in the first year. Over two to three fiscal years, aggregate impact on CAPEX investment programs will be mixed as some cities will take a much longer time for CAPEX to return to the pre-COVID level. The scenario analysis shows that variance between base and pessimistic scenarios in CAPEX is generally higher than in recurrent expenditure as LGs give more priority to recurrent expenditure to cover staff costs and government daily operating costs. The analysis also shows that the highest variance in CAPEX are estimated for Indian cities considering the particularly high risks associated with the new waves of COVID-19 outbreaks in India since March 2021.

The local governments' pre-COVID financial positions and their reserves are among the factors that policy makers must consider when making budgetary adjustments.

All cities' reserve or carry forwarded balances were consumed during the first fiscal year of COVID's impact except in Sibiu, which had a much higher reserve than all other cities. In the case studies, LGs' reserve funds or carried-over balances were not the major sources of funding to fill the gap of the pandemic shock, given the relatively small scale of these funds compared with the significance of the revenue decline and demand for expenditure caused by COVID. Nonetheless, the experience of Sibiu and other advanced economies (AEs) in general suggests that reserve funds can provide some level of confidence about available financial resources during times of crisis.

To ensure LG financial viability following the revenue shocks, budgetary adjustments will be required. Three broad types of budget adjustment have emerged in the case studies, which can be summarized as:

- (i) **A Buffered Shock.** The shock on current revenue is buffered during the COVID crisis. The LG is to continue recurrent and capital expenditures as planned with slight adjustment (e.g. Sibiu, Romania).
- (ii) **V-shaped Adjustment.** The current revenue is shocked by the pandemic in the first year but is expected to make a quick V-shaped recovery. To balance the budget, the city must adjust recurrent expenditures and capital expenditures according to funding availability with a likely V-shaped adjustment (e.g. Surat, India).
- (iii) **U-shaped Adjustment.** Current revenue is shocked by the pandemic and is expected to make a slow U-shaped recovery over two fiscal years or more. Recurrent and capital expenditures must be adjusted based on available revenue resources to keep a balanced budget with a similar U-shaped adjustment (e.g. Nairobi, Kenya)

The legacies of the pandemic exacerbate the challenges to policy makers to balance between, on one hand, funding for COVID response and post-COVID recovery, and on the other, safeguarding cities' fiscal sustainability. The economic recovery is not expected to be strong enough to fully recoup pre-COVID output losses in the short term in most cities. Affected by risks associated with the path of pandemic outbreaks and slow economic recovery, the fiscal challenges to cities increase significantly, especially for cities with less diversified revenue resources. The pessimistic scenario analysis shows that the variance between the base and the pessimistic scenario could be large, depending on the local COVID outbreaks and economic conditions. With new waves of COVID outbreaks in many cities, local government decision makers continue to face challenges in budget adjustment in a high uncertainty environment. Building local governments' fiscal sustainability, resilience and capacity is important to crisis response.

1. INTRODUCTION

Background

Local governments (LGs) have been at the frontline of COVID-19 response and recovery efforts. LGs are often directly responsible for undertaking health- and social-related measures for COVID-19 preparedness and response, although the degree to which they take on these responsibilities varies from country to country. At the same time, LGs still need to continue to provide basic services and/or infrastructure for cities. They also play an important role in supporting vulnerable households, communities and enterprises hardest hit by COVID-19 due to job and income losses.

LGs have faced multiple challenges in finding adequate financial resources to meet competing needs. Their financial situations have been directly and adversely affected by the pandemic with declining own source revenues (OSRs) in many cases and rising expenditures as economies have contracted. With the decline in national government revenues, inter-governmental transfers to LGs, which often comprise LGs' main source of revenue, have also declined. At the same time, LGs have faced increasing demands for expenditure for health and pandemic control services. In some cases, operational costs for service delivery have also increased as cities have had to introduce additional health and safety procedures.

Improving LGs' financial capacity and ensuring adequate financial resources for efficient response to COVID-19 has been identified as one of the World Bank's response priorities to COVID-19.² It is crucial for the World Bank to work together with Emerging Markets and Developing Economies (EMDEs) clients to develop a comprehensive policy agenda on LG finance and governance to reduce the adverse impact from the pandemic and build long-term sustainable post-COVID growth prospects for cities.

This report aims to analyze the impact of COVID-19 on local governments' financial situations through cross-country analysis and comparison. The goal is to share the findings and knowledge with World Bank clients and task teams supporting them to more effectively respond to the COVID-19 crisis. The report provides analysis of the impact of COVID on the fiscal and financial positions of municipalities in a selected number of EMDE countries and provides examples of how local and national governments in these countries are responding to the crisis and uncertainties.

COVID-19 and Local Government

The COVID-19 pandemic has severely impacted national and local economies. The World Bank estimates that global GDP contracted by 4.3 percent in 2020, the deepest global recession in eight decades, despite the extraordinary efforts of governments to counter the downturn with fiscal and monetary policy support.³ EMDEs' GDP is estimated to have contracted by 2.6 percent in 2020. The Latin America and the Caribbean region has seen the largest decline in GDP – about 6.9 percent, followed by South Asia at 6.7 percent. Sub-Saharan Africa's

² World Bank. 2020. "World Bank's Response to COVID-19 Multi-sector Policy Directions and Options." March 29, 2020. Internal Note. and GPURL (Global Practice for Urban, Disaster Risk Management, Resilience and Land). 2020. "Urban and Disaster Risk Management Responses to COVID-19." Note. April 3, 2020.

³ World Bank. June 2020. Global Economic Prospects. Washington, DC: World Bank.

GDP is estimated to have contracted by about 3.7 percent. The rapid shrinkage in the global economy may have pushed up to 71 million people into extreme poverty in 2020, mostly informal sector workers and women.⁴

The pandemic and the global recession have raised government deficits and debt to unprecedented levels^{5 6}. The rise in deficits in advanced economies and several emerging market economies resulted from roughly equal increases in spending and declines in revenues, whereas in many emerging market economies and most low-income developing countries it stemmed primarily from the collapse in revenues caused by the economic downturn. COVID emergency response programs, especially necessary health expenditures, the implementation of lockdown regimes, tax relief measures and other economic and social measures, have together significantly increased local as well as national governments' fiscal budgets and fiscal deficits.⁷

Many advanced economies and EMDEs have implemented fiscal policy support to confront the immediate health crisis and preserve lives, as well as to limit the magnitude of the economic contraction and accelerate the eventual recovery.⁸ The G20 response was generally faster and with a higher-level of fiscal stimuli than that of EMDEs. The response also exceeded the level during and after the 2008 financial crisis.⁹ Among EMDEs, the South Asia region has seen the largest fiscal support measures, up to 10 percent of GDP.¹⁰ Sub-Saharan Africa has the lowest fiscal support among EMDEs, averaging 3 percent of GDP, markedly less than what has been spent in other regions of the world.¹¹

LGs play an important role in fighting and recovering from COVID-19. People living in highly congested slums and informal settlements, where service delivery is often weak, are exposed to a much higher risk of community transmission. Many EMDE cities lack capacity to effectively respond to the crisis making them possible hotspots for the spread of COVID-19. Additional expenditures associated with the COVID-19 response will put additional pressure on LG finances in EMDEs which, in many cases, are already facing financial constraints in providing basic urban services and support for the urban poor.

⁴ Malpass, David. May 22, 2020. "May 22, 2020 end of week update: COVID response, desert locusts, a new chief economist, and more." <https://blogs.worldbank.org/voices/may-22-2020-end-week-update-COVID-response-desert-locusts-new-chief-economist-and-more>.

And United Nations. 2020. Sustainable Development Goals Report. <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf>.

⁵ IMF. 2021. "Fiscal Monitor: A Fair Shot. Washington, April."

⁶ World Bank. *Global Economic Prospects*. www.worldbank.org/en/publication/global-economic-prospects.

⁷ IMF. 2021. "Fiscal Monitor: A Fair Shot. Washington, April.", estimates direct spending and revenue measures will be 6 percent of GDP in advanced economies in 2021.

⁸ IMF, Fiscal Affairs Department. July 2021. "Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic." www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19.

⁹ McKinsey. 2020. "Global Health and Crisis Response Note". May 6, 2020. www.mckinsey.com/business-functions/risk/our-insights/covid-19-implications-for-business.

¹⁰ World Bank. 2021. *Global Economic Prospects*.

¹¹ Selassie, Abebe Aemro. Oct 22, 2020. "Sub-Saharan Africa's Difficult Road to Recovery" IMF blog. <https://blogs.imf.org/2020/10/22/sub-saharan-africas-difficult-road-to-recovery/>.

The Scope and Organization of the Report

This report is organized into six chapters covering: an introduction, the COVID-19 outbreak and macroeconomic situations in the case studies, the impact on revenue, the impact on expenditure, the LGs' budgetary adjustments, and conclusions. This is complemented by Annex 1, which provides an introduction to the case study methodologies.

- Chapter 2 provides the introduction and context to the case studies included in this report. It describes the methodology and analytical framework used in the report. To provide the context for the analysis, Chapter 2 also briefly discusses macroeconomic situations, the COVID-19 outlook and challenges, and LGs' responses in the case studies.
- Chapter 3 discusses the COVID-19 impact on municipal governments' revenue, both Own Source Revenues (OSR) and Inter-governmental Transfers (IGT). The year-on-year (YoY) impact as well as the accumulated impact are analyzed. The chapter also describes the potential up- and down-side risks that may be associated with the revenue.
- Chapter 4 discusses the COVID-19 impact on municipal governments' recurrent expenditure and capital expenditure (CAPEX).
- Chapter 5 analyses the three indicative types of budgetary adjustments (buffered shock, V-shaped adjustment, and U-shaped adjustment) and other factors that affect LGs' recovery path such as LGs' pre-COVID fiscal positions, uneven macroeconomic recovery in their countries and the extent of central government support to LGs.
- Chapter 6 summarizes the findings and key takeaways from the study.

2. COVID-19 IMPACT ON MUNICIPAL FINANCE CASE STUDIES

Summary

- *This chapter presents the report's data and findings from the 15 case studies conducted by the World Bank teams. These cases cover 10 countries in 7 World Bank regions with per capita income ranging from upper-middle, to lower-middle to low-income EMDE country groups and city populations ranging from about 58,000 (Kisela Voda) to 11 million (Chennai).*
- *The report uses scenario analysis to address the high uncertainty nature of the pandemic. The base scenario is the most likely scenario based on the available data. The pessimistic scenario refers to the scenario where the impact of COVID-19 is assumed to be severe and prolonged.*
- *All the economies in the case studies have seen economic contraction in 2020. In all cases, national governments and local governments took various measures to respond to COVID-19 including fiscal measures at the local government level.*

Introduction to the Case Studies

The report draws on findings from various country- and city-level case studies¹² conducted by World Bank task teams to better understand how COVID-19 has impacted municipal finances. The 15 case studies cover 10 countries in 7 World Bank regions. Among the 15 case studies, twelve are for cities and three are for clusters of cities in 3 countries (Bolivia, Colombia, and Morocco). The list of the 15 case studies and their respective regions, countries, and cities are shown in **Table 1**; the locations of these cities and countries are shown in **Map 1**.

The case studies present a diverse group of municipal governments in terms of their geographical locations, income levels, and population densities. The case studies selected in this report cover all World Bank regions and include cities from upper-middle, lower-middle and low-income EMDE country groups with per capita GDP (in current USD) ranging from USD 622 (Liberia) to USD 12,920 (Romania); (see **Tables 1 and 2** for more information). The populations of the cities range from 58,000 (Kisela Voda) to 10,971,000 (Chennai). Some cities represent the majority of the total country population, e.g. Monrovia hosts about 26.3 percent of the total population in Liberia, while some others represent less than 1 percent of the country's population, e.g. Surat, Ahmedabad, Semarang, and Chennai. Additional information on the case studies, the task teams, methodology, scenarios, and data used in the case studies are provided in **Annex 1**.

¹² A review from the World Bank case studies can be found in Table 1 and Annex 1. The local governments and cities refer to the limited number of selected cities included in the World Bank case studies.

Table 1: List of Case Studies

Income Group	Region	Countries
Upper-middle Income Countries^[a]	ECA	Romania (Sibiu)
		North Macedonia (Kisela Voda, Gazi Baba)
		Bosnia and Herzegovina (Banja Luka, Tuzla)
	EAP	Indonesia (Semarang)
LAC	Colombia (selected cities) ^[b]	
Lower-middle Income Countries	LAC	Bolivia (10 municipalities)
	MNA	Morocco (national)
	SAR	India (Ahmedabad, Chennai, Surat)
	AFE	Kenya (Nairobi, Mombasa)
Low-income Countries	AFW	Liberia (Monrovia)

Data Source: Case studies on COVID Impact on Municipal Finance by World Bank task teams (2020).

Notes:

- a) The income groups classification follows the World Bank’s Country and Lending Groups: <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>
- b) Colombia (Selected Cities): The scope of the study is 43 capital and intermediates cities that represents 70 percent of the total tax base of the country.

Map 1: Cities in the Case Studies



Table 2: Population, GDP per capita and COVID cases in the case studies

Country	City	Country pop.	City Pop.	GDP per capita	COVID cases	Cum. cases per	Cum. cases	Case per	City as % of	Residents per
		2019	2019	(current US\$)	(Cum. Country Total)	1,000 pop. (Country)	(City)	1,000 pop. (City)	Country population	square kilometer
Sub-Saharan Africa										
Kenya	Nairobi	52,573,973	4,735,000	1,817	169,356	3.22	72,234	15.3	9.0%	4,850
Kenya	Mombasa	52,573,973	1,296,000	1,817	169,356	3.22	11,639	9.0	2.5%	4,100
Liberia	Monrovia	4,937,374	1,300,000	622	2,174	0.44			26.3%	
EAP										
Indonesia	Semarang	270,625,568	2,067,000	4,136	1,791,221	6.62			0.8%	
ECA										
Bosnia and Herzegovina	Banja Luka	3,301,000	199,191	6,109	203,658	61.70			6.0%	
Bosnia and Herzegovina	Tuzla	3,301,000	120,441	6,109	203,658	61.70			3.6%	
North Macedonia	Kisela Voda	2,083,459	58,216	6,022	155,117	74.45			2.8%	
North Macedonia	Gazi Baba	2,083,459	72,617	6,022	155,117	74.45			3.5%	
Romania	Sibiu	19,356,544	425,906	12,920	1,076,533	55.62	23,861	56.0	2.2%	1,200
LAC										
Bolivia	10 cities	11,513,100	5,500,000	3,552	358,562	31.14			47.8%	
Colombia	43 cities	50,339,443		6,429	3,294,101	65.44				
MNA										
Morocco	National	36,471,769	22,975,026	3,204	517,808	14.20			63.0%	
SAR										
India	Ahmedabad	1,366,417,754	8,059,441	2,100	27,369,093	20.03	233,840	29.0	0.6%	26,000
India	Chennai	1,366,417,754	10,971,108	2,100	27,369,093	20.03	491,197	44.8	0.8%	26,553
India	Surat	1,366,417,754	7,185,000	2,100	27,369,093	20.03	139,586	19.4	0.5%	14,000

Data Sources:

Johns Hopkins University. 2021. "COVID updates". May 27, 2021. <https://coronavirus.jhu.edu/region>.

WDI. 2020. <https://databank.worldbank.org/source/World-Development-Indicators>.

Bing.com. 2021. Data. https://bing.com/covid/local/ahmedabad_gujarat_india and https://bing.com/covid/local/chennai_tamilnadu_india.

Statista.com. 2021. Data. <https://www.statista.com/statistics/1104730/covid-19-infections-by-region-romania/> and www.statista.com/statistics/1136519/cumulative-coronavirus-cases-in-kenya-by-county/.

Methodology

Scenario Analysis. The findings of this report are based on the analysis and estimation carried out in the city case studies. Scenario analysis is employed to examine the potential impacts given the high uncertainties associated with the pandemic. Two scenarios are considered:

- The **"base scenario"** refers to the scenario that is most likely to occur. When the data is available, the actual outturn data or the most updated estimates are presented in the base scenario, or, in many cases, the LGs' latest budgetary plans were used in the base scenario with authors' analysis. It is the most-often referenced scenario in this study. Unless otherwise stated, the data and analysis in this study is that of the base scenario.
- The **"pessimistic scenario"** refers to a scenario where the impact of COVID-19 is assumed to be severe and prolonged. The pessimistic scenario in the analysis provides an indication of the range of impacts, especially the downside risks, given the uncertainty of the external shocks from the on-going pandemic. Eleven of the 15 case studies include analysis of a pessimistic scenario which is based on an estimate of

particularly severe impacts, i.e. the number of COVID-19 cases, the city or area lock-down measures which slow both revenue collection and investment activity, the slow-down of economic output, and the length of the impact which possibly delays economic recovery. The case studies then estimated the impact on revenue and expenditure items (e.g. inter-government transfer, income tax, property tax, city tax, etc. in revenue and recurrent and capital expenditure in expenditure) as a result of these situations as well as the activities that the municipal governments should take in response to the impact, e.g. increased health care related services, additional cost for municipal basic service delivery, the compensation of government employees, additional social service for COVID responses, etc. Interviews with international and local experts were used in most of the case studies to estimate the impact value under the pessimistic scenario given the uncertainty of the impact and diversity of city conditions. Please see Annex 1 for a detailed example of scenario analysis.

Impact Analysis. The scenario analyses are used in Chapter 3, 4 and 5 of this report. Chapter 3 “Impact on Local Governments’ Revenues,” and Chapter 4 “Impact on Local Governments’ Expenditure” focus on the impacts of COVID-19 over 2-3 budget cycles by looking at the immediate short-term impacts (i.e. year-on-year percentage changes) and medium-term impacts (i.e. 2 to 3 fiscal year cycles after the pandemic shock) and the paths towards recovery (i.e. by comparing with pre-COVID levels). The pessimistic scenario indicates the risk factors in the second or third fiscal year when the COVID outbreak is still on-going or may be getting worse in some cases. Chapter 5 “Budgetary Adjustments” analyzes the types of LG budgetary adjustment (buffered shock, V-shaped adjustment, and U-shaped adjustment) primarily under the base scenarios. The pessimistic scenario indicates the possible challenges from the downside risk which may direct LG budget adjustment towards a different direction and LG responses may end up with different types of budgetary adjustments. The analysis focuses on the income and expenditures of the LGs on an annual basis and does not extend to the LGs’ balance sheet or the underlying financial health of the various municipalities concerned in the case studies.

Data Sources. Most of the case studies rely on two main data resources in the estimations of the impact. One is the municipal governments’ budget statements and planning which provide the information on available financial resources and plans. The second data source is the data related to COVID-19 and the broader economic situation and trends estimated by national and local authorities, global experts, and the World Health Organization (WHO). Expert interviews were used in most of the case studies to collect data from national and local government officials and experts. In some cases, the case studies were conducted together with LG expert teams.

The base scenario provides the best estimates on the impact from the COVID-19 crisis based on the available data from the case studies. The pessimistic scenario provides a reasonable reference to the potential downside risks that cities may face based on the local and national COVID data, as well as the economic, policy, and finance data in the case studies.

The introduction of a pessimistic scenario provides an important risk alert that the reported results from the base scenario could be considered optimistic because the on-going COVID-19 crisis has an extreme degree of uncertainty in different locations and across the impact periods. The reported results from the analysis could have errors given that the cities’ geographical, economic, political, and financial situations are so diverse, but the downside risk from COVID-10 pandemic should be considered as a systematic risk factor that is addressed in the pessimistic scenario analysis in the report.

The COVID-19 Outbreak in the Case Studies

The pandemic outbreaks at the country and city levels broadly follow the magnitude of outbreaks in their regions.¹³ Globally, as of May 30, 2021, there were 167.4 million confirmed cases of COVID-19 and over 3.4 million deaths.¹⁴ The Americas have the highest number of cases with over 64 million followed by Europe (53.9 million), South-East Asia (30.7 million), Eastern Mediterranean (9.9 million) and Africa (3.5 million). In terms of cases per capita, ECA countries in the case studies experienced the biggest COVID-19 outbreaks with 17-30 cases per 1000 people. Kenya and Liberia's number of cases per 1000 people is among the lowest in the case studies. (see **Table 2**) Nevertheless, the outbreak has been highly dynamic, and the situation could alter dramatically in some cities such as in India, where the latest spike starting in the month of March 2021 is causing major concern globally.

Some of the cities are heavily affected by COVID-19 outbreaks. Among the cities covered in the case studies with available data, Chennai reported the highest number of COVID-19 cases (491,197 cases as of May 30, 2021); Nairobi reported the highest percent of the total number of cases in its country¹⁵ (43 percent of the total number of cases in Kenya); Sibiu reported the highest density of COVID cases in the case studies (56 cases per 1000 people).¹⁶

An unprecedented surge in COVID cases across India starting in March 2021 overwhelmed the health care system and underlined that the pandemic was far from over. Beginning in early March 2021, COVID infections sky-rocketed across India, which reported close to 400,000 new cases daily in early May, a new global record.¹⁷ The surge has been largely attributed to the emergence of particularly infectious variants, a rise in unrestricted social interactions, and low vaccine coverage.¹⁸ In response, India has largely curtailed vaccine exports to other countries. Since India is one of the largest suppliers of the AstraZeneca vaccine, this will have wide-ranging implications for the ability, especially of EMDEs, to successfully combat the pandemic in the near-term.¹⁹

Government Responses

All the economies in the case studies saw GDP contraction in 2020 (see Figure 1). Globally, real GDP is estimated to have contracted by 4.3 percent in 2020. Meanwhile, EMDE 2022 growth projections are estimated to fall more than 5 percent below the pre-pandemic estimate.²⁰ India is expected to have contracted by 9.6 percent in 2020. Bolivia and Morocco are also estimated to have contracted significantly by 6.7 and 6.3 percent, respectively. Romania is estimated to have contracted by 5 percent, North Macedonia by 5 percent and Bosnia and Herzegovina by 4 percent. In Kenya, the main economic impact of the pandemic was felt in the second quarter

¹³ The COVID case numbers are derived from official data sources. In some countries, the data could reflect an undercount.

¹⁴ WHO. 2021. "WHO Coronavirus (COVID-19) Dashboard: (Situation by WHO Regions)."

https://covid19.who.int/?gclid=CjwKCAiArbv_BRA8EiwAYGs23GRtOfn8DMeloAmidYuMW0BsRfrN893AJLTNSP-zj-XktRyplMgY5BoCwp4QAvD_BwE.

¹⁵ Kenya Ministry of Health.

¹⁶ Statista.com. 2021. Data. www.statista.com/statistics/1104730/covid-19-infections-by-region-romania/.

¹⁷ ABC News. May 20, 2021. "India suffers record daily coronavirus deaths as total new cases dip slightly." www.abc.net.au/news/2021-05-02/india-suffers-record-daily-coronavirus-covid-19-deaths/100111164.

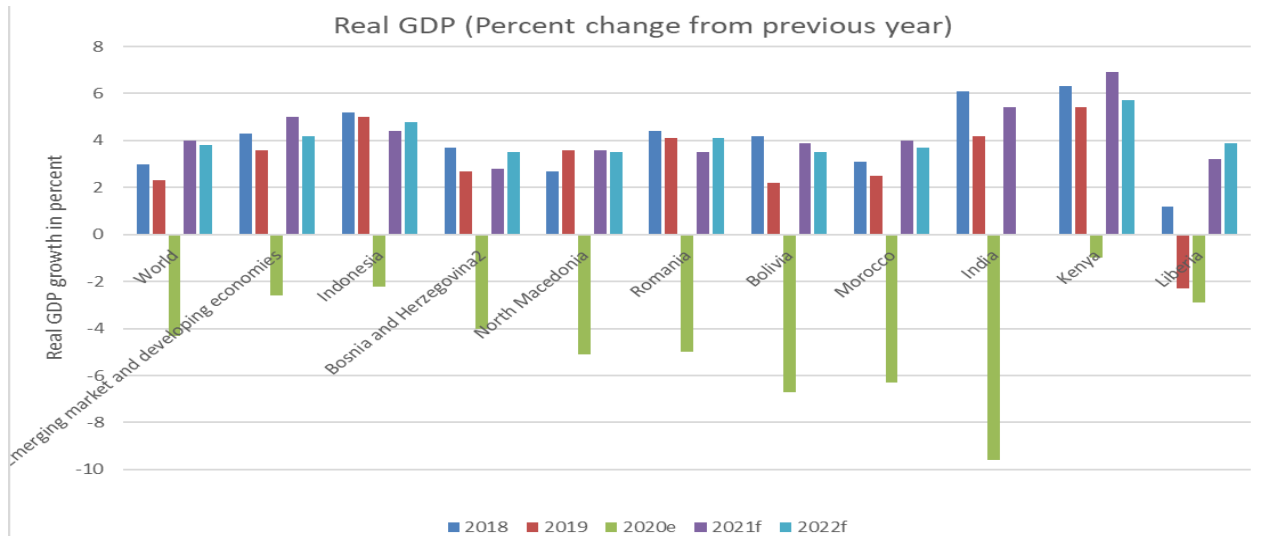
¹⁸ Nature Briefing News. April 21, 2021. "India's massive COVID surge puzzles scientists." www.nature.com/articles/d41586-021-01059-y.

¹⁹ www.nytimes.com/2021/03/25/world/asia/india-covid-vaccine-astrazeneca.html.

²⁰ World Bank. January 2021. Global Economic Prospects. Washington, DC: World Bank.

of 2020, during which real GDP contracted by 5.7 percent, compared to the moderate growth of 4.9 percent in Q1 2020.²¹ Indonesia is estimated to have contracted by 2.2 percent.

Figure 1: COVID impact on global real GDP in selected countries (% change from previous year)



Data source: World Bank. January 2021. *Global Economic Prospects*. Washington, DC: World Bank; author’s analysis.

Note: 2020 estimate; 2021/2022 estimate India: National income and product account data refer to fiscal years.

National governments and LGs took various measures to respond to COVID-19. Most countries have implemented stimulus measures to recover the local economy (e.g. India, Bolivia, Romania, Indonesia, Bosnia and Herzegovina, Kenya, North Macedonia, and Colombia all reported stimulus packages^{22,23,24}). In India, the government announced a stimulus package in May 2020 worth Rs. 20 trillion or USD 265 billion, equivalent to about 10 percent of the country’s GDP. The package supports more direct income transfers to vulnerable people, provides government loan guarantees for enterprises as well as Micro, Small and Medium-sized Enterprises, and pays pending dues to states, private and public enterprises. Measures to ease the tax compliance burden during the months of April and May 2021 were re-introduced in response to the recent surge in infections. The central government budget for FY2021/22 expanded spending on health and wellbeing, including for the vaccination program. Free food grains were being provided to 800 million individuals in May and June 2021, as the previous food rations program had expired in November 2020. Interest-free loans to states for capital expenditure were also extended to FY2021/22, while the release of Disaster Response Funds to state governments was expedited. Finally, customs duties and other taxes on vaccines, oxygen and oxygen-related equipment were waived to boost their availability.²⁵ In Kenya, the government introduced various measures to increase employment, support local enterprises, and provide Kenyan citizens with financial support. Some of the interventions include recruiting additional health workers, hiring local labor to support national hygiene efforts and broader public works initiatives. To support vulnerable individuals and businesses, the government allocated funds for VAT

²¹ World Bank. November 2020. *Kenya Economic Update, November 2020: Navigating the Pandemic*. <https://openknowledge.worldbank.org/handle/10986/34819?show=full>.

²² www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19; www.bloomberquint.com/economy-finance/after-a-long-wait-modi-announces-economic-relief-package.

²³ www.bloomberquint.com/economy-finance/after-a-long-wait-modi-announces-economic-relief-package.

²⁴ www.bloomberquint.com/opinion/articles/2020-05-21/india-s-coronavirus-relief-package-is-the-right-size.

²⁵ www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#.

refunds, provided soft loans and loan guarantees for businesses, and rolled out direct cash transfer programs. In Morocco, municipalities have mobilized significant resources to fight against the COVID-19 outbreak. Measures adopted include sanitation and disinfection of public spaces, management of markets, introduction of price controls on necessary commodities, and provision of financial assistance to vulnerable populations. To ensure public service delivery and payment continuity for service providers, municipalities have also increased efforts to simplify and digitalize their administrative procedures (See **Box 1**).

Affected by slow economic recovery and concerns about the ability of the fiscal space to reload investments, EMDEs experienced much higher levels of revenue loss and stress in expenditure expansion than advanced economies. Global economies saw revenue losses in the first year of the COVID impact, and recovery in the second year. On the expenditure side, the advanced economies carried out significantly more aggressive fiscal easing in the first year (2020) when primary expenditure increased about 6 percent of GDP in response to COVID. EMDEs also announced fiscal support packages in 2020 although the packages were much less than those of the AEs with discretionary measures averaging 1 percent of GDP. Relative to AEs, EMDE fiscal support was largely front-loaded, with announced COVID-19 revenue and spending measures mostly deployed in 2020.²⁶ In the second year, many EMDEs were expected to pivot toward fiscal tightening to improve the sustainability of public finances, despite large spending needs and sizable output losses relative to pre-pandemic projections. These actions will likely be partially reflected in reduced local government fiscal transfers.

Box 1: LG actions to fight COVID-19 in Morocco

- **Sanitization campaign.** Special campaigns for sanitization of public spaces and administrative premises have been launched in many cities.
- **Market management.** Specific measures have also been taken by municipalities, often in collaboration with local communities, to protect public health while ensuring the supply of food and household essentials, namely through adjusted management of local and wholesale markets. In cities like Casablanca and Tangiers, price controls on necessary commodities and financial assistance to vulnerable populations were introduced. Daily prices are published on the municipality website to avoid fraudulent price increases.
- **Accelerating digital technologies.** With the support of the Ministry of Interior, municipalities have accelerated the use of digital technologies to deliver administrative services remotely to citizens and firms, thus limiting physical movement. For instance, the government has accelerated the deployment of the digital platform “rokhas.ma”, which supports the digitalization of procedures for the issuance of building permits and commercial licenses. This platform is being rapidly deployed in all Moroccan municipalities after having been tested in Casablanca. The government is also responding to the crisis by accelerating the deployment of digital grievance redress systems and civil registry services.
- **Supporting vulnerable households.** Municipalities are also providing special ad hoc financial assistance to vulnerable populations. Ad-hoc initiatives have emerged in several municipalities that have been providing financial support to disadvantaged households.

Sources: Augustin Maria etc., the Morocco country case study (2020).

²⁶ Gaspar, V., W. R. Lam, P. Mauro, and M. Raissi. 2021. “Tailoring Government Support.” IMF Blog, April 7, 2021. <https://blogs.imf.org/2021/04/07/tailoring-government-support/>.

3. IMPACT ON LOCAL GOVERNMENTS' REVENUE

Summary

- *COVID-19 has significantly impacted the cities' current revenue, but the magnitude of the impact and the responses taken are varied. In most cases, the impact on revenue can be contained in the short run as revenue positions are expected to start to recover in the second or third year of the pandemic. However, most cities will not yet see their revenue return to pre-COVID levels within the initial two to three year period.*
- *Cities' Own Source Revenue (OSR) is estimated to have dropped significantly in the first year of the pandemic in most cases except for Sibiu and Ahmedabad. Most cities are estimated to see OSR start to recover over the course of two to three years, without returning fully to pre-COVID levels. Decline in OSR is driven by both reduced or suspended economic activities and tax relief measures. Property tax is the main local tax in OSR and it is estimated to be heavily impacted.*
- *Inter-governmental Transfer (IGT) plays an important role in supporting local governments during the crisis. In the first year, all LGs in the case studies were affected by a decline in IGT except Sibiu, Chennai, and Ahmedabad. Over two to three years, IGT for most LGs will recover but will still stay below pre-COVID levels except for Sibiu, Chennai, Surat, and Monrovia.*
- *Fiscal challenges to cities increase significantly because of the uncertainty in economic recovery and the risks associated with the path of pandemic outbreaks, especially for cities with less diversified revenue resources. The pessimistic scenario analysis shows that the variance between the base and the pessimistic scenario could be large, depending on the local COVID outbreaks and economic conditions.*

COVID-19 has significantly impacted the cities' current revenue, but the magnitude of the impact is varied in the short- and medium- terms. Table 3 summarizes the estimated year-on-year impact of COVID-19 on LG total current revenue and **Table 4** summarizes the aggregate impact compared to the fiscal year pre-COVID-19.²⁷ The section below discusses the impact of the pandemic on city governments' current revenue on an incremental basis, i.e. in the first year and the second year after the pandemic. It will then examine the aggregate impact compared to the fiscal year before COVID-19 in selected cities where data permits.

²⁷ Subject to data availability, the "aggregate impact" on total current revenue is presented as the percentage change of total current revenue compared with pre-COVID fiscal positions. As shown in Table 4, the Aggregate Impact covers two fiscal years for Sibiu, Kisela Voda, Banja Luka, Tuzla (FY 2019 to FY 2021); two fiscal years for Ahmedabad, Surat, and Chennai (FY2019/20 to FY 2021/22); and three fiscal years for Nairobi, Mombasa and Monrovia (FY 2018/19 to FY 2021/22) based on the difference in their fiscal years.

Table 3: Impact of COVID-19 on local governments' current revenue (% change Year-on-Year)

Country	City	Total current revenue	Total current revenue (Base Scenario)		Total current revenue (Pessimistic Scenario)		Real GDP	
		% Change YoY	FY 2020b	FY 2021b	FY 2020p	FY 2021p	2020e	2021e
Romania	Sibiu		13%	-3%	13%	-12%	-5%	4%
North Macedonia	Kisela Voda		-15%	7%	-25%	-16%	-5%	4%
Bosnia and Herzegovina	Banja Luka		-16%	6%	-23%	15%	-4%	3%
Bosnia and Herzegovina	Tuzla		-17%	8%	-25%	9%	-4%	3%
Indonesia	Semarang		-13%	8%	-13%	-13%	-2%	4%
Bolivia	10 cities		-27%		-52%		-7%	4%
Morocco	National		-25%				-6%	4%
		FY2020 h1	FY 2020b	FY2021b	FY2020p	FY2021p	2020e	2021e
Colombia	Selected Cities	-28%	-17%		-22%		-5%	-1%
			FY2020/21b	FY 2021/22b	FY 2020/21p	FY 2021/22p	2020e	2021e
India	Ahmedabad		12%	14%	12%	-20%	-10%	5%
India	Chennai		20%	-8%	20%	-20%	-10%	5%
India	Surat		-18%	31%	-18%	-20%	-10%	5%
		FY2019/20o	FY2020/21b	FY 2021/22b	FY 2020/21p	FY 2021/22p	2020e	2021e
Kenya	Nairobi	-23%	-4%	1%	-28%	-3%	-1%	7%
Kenya	Mombasa	-11%	-4%	1%	-17%	-3%	-1%	7%
Liberia	Monrovia	-19%	22%	10%	-15%	12%	-3%	3%

Data source: World Bank case studies 2020 with author's analysis; World Bank, January 2021, *Global Economic Prospects*.

Notes:

- The Fiscal Year (FY) is different from city to city. The FYs in Nairobi, Mombasa and Monrovia are from July 1 to June 30; the Indian government's FY runs from April 1 to March 31. FY for other cities is from January 1 to December 31. When referring to FY in this study, it follows the FY of each city and country. The real GDP data is from World Bank's *Global Economic Prospects*, which is studied based on Calendar Year.
- b - base scenario, p- pessimistic scenario, e – estimates, o- outturn.
- Indian cities - FY2019/20 is considered as before COVID; African cities - FY2018/19 is considered as before COVID; other cities - FY 2019 is considered as before COVID.
- FY2020h1 for Colombia is first half outturn data in FY2020 compared to first half outturn in FY2019.
- Colombia (Selected Cities): The scope of the study is 43 capital and intermediates cities that represent 70 percentage of the total tax base of the country.
- Sibiu FY2020, Semarang FY 2020, Ahmedabad FY2020/21, Chennai FY2020/21, and Surat FY2020/21 used the outturn or the most updated estimates as of May 2021. In these instances where the outturn or the most updated estimates by LGs are presented, the data in the base and pessimistic scenarios for these cities are the same.

Table 4: Impact of COVID-19 on local governments' current revenue (Aggregate Impact from Pre-COVID level)

		Total current revenue (Base Scenario)	Total current revenue (Pessimistic Scenario)	Real GDP
		Aggregate Impact (%)	Aggregate Impact (%)	Aggregate Impact (%)
		FY2019 to FY 2021b	FY2019 to FY 2021p	2019-2021e
Romania	Sibiu	10%	-1%	-2%
North Macedonia	Kisela Voda	-9%	-37%	-2%
Bosnia and Herzegovina	Banja Luka	-11%	-11%	-1%
Bosnia and Herzegovina	Tuzla	-11%	-19%	-1%
Indonesia	Semarang	-6%	-25%	2%
		FY 2019/20 to FY 2021/22b	FY 2019/20 to FY 2021/22p	2019-2021e
India	Ahmedabad	29%	-10%	-5%
India	Chennai	10%	-4%	-5%
India	Surat	7%	-34%	-5%
		FY 2018/19 to FY2021/22b	FY 2018/19 to FY2021/22p	2019-2021e
Kenya	Nairobi	-25%	-31%	6%
Kenya	Mombasa	-14%	-19%	6%
Liberia	Monrovia	8%	-5%	0%

Data source: World Bank case studies 2020 with author's analysis; World Bank, January 2021, *Global Economic Prospects*.

Notes:

- The Fiscal Year (FY) is different from city to city. The FY in Nairobi, Mombasa and Monrovia are from July 1 to June 30; the India government's FY runs from April 1 to March 31. FY for other cities is from January 1 to December 31. When referring to FY in this study, it follows the FY of each city and country. The real GDP data is from World Bank's *Global Economic Prospects*, which is studied based on the Calendar Year.
- b - base scenario, p- pessimistic scenario, e – estimate, o- outturn.
- Indian cities - FY2019/20 is considered as before COVID; African cities - FY2018/19 is considered as before COVID; other cities - FY 2019 is considered as before COVID.
- The "Aggregate Impact" of total current revenue is presented as the percentage change of total current revenue compared with pre-COVID level. As shown in Table 4, the "Aggregate Impact" covers FY 2019 to FY 2021 (two fiscal years) for Sibiu, Kisela Voda, Banja Luka, Tuzla and Semarang; FY2019/20 to FY 2021/22 (two fiscal years) for Ahmedabad, Surat and Chennai, and FY 2018/19 to FY 2021/22 (three fiscal years) for Nairobi, Mombasa, and Monrovia.
- Sibiu FY2020, Semarang FY 2020, Ahmedabad FY2020/21, Chennai FY2020/21, and Surat FY2020/21 used the outturn or most updated estimates as of May 2021.

The Year-on-Year Impact on Current Revenue

Moderate revenue decline and gradual recovery is estimated in ECA cities, except Sibiu.

While most ECA countries saw higher COVID cases per capita compared to other regions, in the first year of the pandemic the estimated decline in LG current revenue in the ECA region was less than in other regions in the case studies, as LGs in the ECA region benefitted from more robust revenue bases before entering the pandemic. In the base scenario, revenue in the ECA case study cities is estimated to have declined by around 15 to 17 percent in FY 2020 compared with FY 2019. The decline could be as high as 23-25 percent in the pessimistic

scenario (See **Table 3**). However, for Sibiu, the outturn data showed that current revenue increased by 13 percent in FY 2020 as the national government increased allocation to city with greater Personal Income Tax (PIT) and Value Added Tax (VAT) allocation. The financial position of Sibiu is considered exceptionally positive even among Romanian cities.

Current revenue is estimated to recover in ECA cities in the second fiscal year (FY 2021), increasing around 6 - 8 percent from FY 2020 in the base scenario (See **Table 3**). This is driven by a relatively large proportion of shared taxes, comprising of VAT and PIT, in the make-up of ECA cities' revenue. As VAT and PIT are elastic to economic growth, the revenue recovers together with the economic recovery. Real GDP for the countries is estimated to increase 3 to 4 percent in the second fiscal year of the impact as shown in **Table 3**. For Sibiu, given the relatively sizable increase in revenue in the first FY from increased allocation in shared PIT and VAT, Sibiu is estimated to see downward adjustment of 3 percent in the second year of impact (FY 2021).

The three Sub-Saharan African cities in the case study have experienced a range of impacts, with some cities seeing revenue falling precipitously amidst a slow recovery.

The FY 2019/20 outturn data showed that the current revenue in the three cities already dramatically dropped following lockdowns and a rapid decline in economic activities up until June 2020. According to the budget outturn, in the first year of the pandemic, current revenue declined by 11 percent in Mombasa, 19 percent in Monrovia, and 23 percent in Nairobi compared to FY 2018/19. (See **Table 3**) The impact is even more significant considering that these LGs experienced only three to four months of COVID-19 shock in the fiscal year, which starts on July 1, 2019 and ends on June 30, 2020.

The recovery scenarios for current revenues in African cities are expected to depend on the level of support from national governments. In the second year of impact (FY 2020/21), the current revenue in Nairobi and Mombasa is estimated to continue to decline by 4 percent, and then slowly recover with a slight increase of 1 percent in FY 2021/22 in the base scenario. Revenue is expected to recover only when national government transfers, the major source of revenue, slowly recover in FY 2021/22. Current revenue in Monrovia, however, is estimated to quickly recover by 22 percent in FY 2020/21 and continue to increase by 10 percent in FY 2021/22 with expected increases in national governmental transfer. According to Liberia's government budget planning in FY 2020/21, the national government plans to increase the fiscal transfer to Monrovia by 60 percent.

Ahmedabad and Chennai saw revenues increase after the pandemic hit with national and state government fiscal support playing a critical role, while Surat faced a drop in revenues in the first year of the pandemic.

Compared to FY 2019/20, current revenues in Chennai increased by 20 percent in FY 2020/21 largely because the state government provided strong inter-governmental fiscal transfers (IGT) to support Chennai in responding to the huge number of COVID cases. Ahmedabad also saw a 12 percent increase in current revenues in the first year of the pandemic. This increase in revenues was, unlike in Chennai, supported by both increases in Own Source Revenue (OSR; see section on OSR) and an increase in state government transfers with a higher health grant for pandemic management as well as election grants. Surat, in contrast, experienced a drop in revenue of about 18 percent in the first year of the pandemic.

Ahmedabad and Surat are expected to see increasing trends in revenue in the second fiscal year (FY 2021/22). Surat's revenue is estimated to quickly recover in FY 2021/22 with a 31 percent increase in current revenues from FY 2020/21. Ahmedabad is estimated to see a continued increase in revenue by 14 percent. Chennai, in

contrast, is estimated to see an 8 percent decline in current revenue, mainly because of the state government’s downward tightening of fiscal transfers from the record high in the previous year.

Due to the second wave of COVID-19 since early March 2021, the negative impact should be exacerbated significantly with an increasingly uncertain recovery. The pessimistic scenario would then seem much more probable.

Preliminary estimates from Bolivia, Colombia, and Morocco indicate significant decline in revenue of more than 20 percent, while Semarang in Indonesia is estimated to see a more moderate drop.

Bolivia’s local governments are expected to see deep revenue shocks with an estimated reduction of 27 percent in the base scenario. Morocco is also estimated to see a substantial impact of 25 percent in the first year. Outturn data from Colombia shows that revenue already declined by 28 percent in the first half of FY2020 compared to the first half of 2019. Over the entire year, it is estimated that Colombian revenues will decline in the range of 17 to 22 percent. Semarang, Indonesia experienced a similar revenue drop in the first year at a more moderate decline of 13 percent and then a recovery of 8 percent in the second year, spurred on by an improvement in both local taxes, fees and IGTs (see **Table 3**).

The Aggregate Impact on Current Revenue²⁸

In most cases, the impact on revenue can be contained in the short run as revenue positions are expected to start to recover in the second or third year of the pandemic. However, only a few cases (with available data) will LGs see their revenue return to pre-COVID levels in this 2 to 3 years period.

In ECA, revenue positions will gradually recover in the second year of the pandemic but will, except for Sibiu, not yet return to pre-COVID levels by the end of the second year in the base scenario. By the end of FY 2021, revenue positions for most cities are estimated to be 9 to 11 percent lower than FY 2019 or pre-COVID levels (see **Table 4**). Sibiu, however, is estimated to see revenue increase by 10 percent higher than its pre-COVID levels benefiting from the national government’s increased allocation on personal income tax (PIT) and value added tax (VAT).

The three Indian cities are expected to experience an aggregate increase in revenue in the base scenario. Compared to FY2019, the total current revenues in FY 2021/22 in Ahmedabad, Chennai, and Surat are estimated to be 29, 10, and 7 percent higher, respectively, than pre-COVID levels. The fast recovery will be underpinned by increases in fiscal transfer from national and state governments as well as quick recovery of OSR (see **Table 4**). However, the unprecedented surge in COVID cases in these cities since March 2021 may elevate the financial risks and revenues could be negatively affected in FY 2021/22 as estimated in the pessimistic scenario.

For cities in Sub-Saharan Africa, the revenue positions will differ among the case studies. By the end of FY 2021/22, revenues in Nairobi and Mombasa will be 25 percent and 14 percent below their pre-COVID levels in the base scenario, respectively. Monrovia is expected to see its revenue position exceed pre-COVID levels by 8

²⁸ The “Aggregate Impact” of total current revenue is presented as the percentage change of total current revenue compared with pre-COVID level. Because of the FY differences, as shown in Table 4, the Aggregate Impact covers two fiscal years for Sibiu, Kisela Voda, Banja Luka, Tuzla; two fiscal years for Ahmedabad, Surat and Chennai, and three fiscal years for Nairobi, Mombasa and Monrovia.

percent (see **Table 4**). These three cities rely heavily on central government transfer as the main source of revenue. Hence, their revenue positions will largely depend on the fiscal position of the national governments and their capacity to allocate budget to these cities.

Revenue positions in Semarang are estimated to see an aggregate decline by about 6 percent compared with pre-COVIDs level over the two-year period in the base scenario.

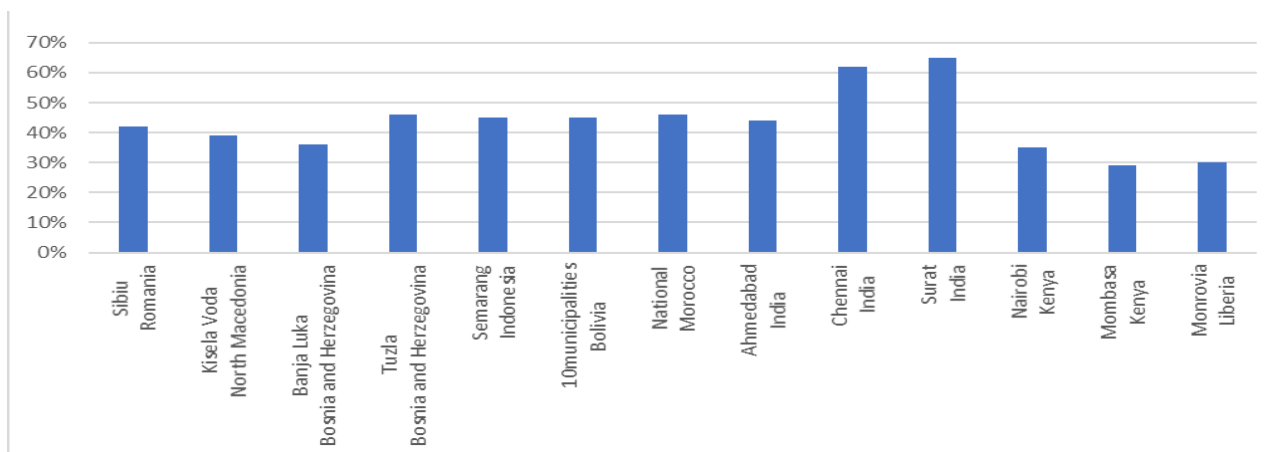
Impact on Own Source Revenue

OSR and IGT are the main sources of revenue for LGs. Their contributions to total revenue are different from city to city. Sub-Saharan African cities rely heavily on IGT with less than 35 percent of total current revenues from OSR. On the other end, Chennai and Surat obtain more than 60 percent of their revenue from OSR. The other cities lie in between with OSR contributing about 35 to 50 percent of total revenues.²⁹ The share of LGs’ OSR to total revenue before COVID is shown in Figure 2.

OSR is estimated to have dropped significantly in the first year of the pandemic in most LGs except for Sibiu and Ahmedabad. Most ECA countries are estimated to have experienced a moderate drop in own source revenue of about 10 percent. Cities in Sub-Saharan Africa with a relatively low share of OSR are estimated to see a range of decline from 2 (Monrovia) and 12 percent (Mombasa), to 17 percent (Nairobi). The most significant drop in OSR among the three African cities took place in Nairobi and can be partly explained by the severity of COVID cases and subsequent lockdowns and the slowdown of economic activities. Nairobi reported 43 percent of the total COVID cases in Kenya. Chennai and Surat are estimated to have experienced a sharp decline in OSR of around 15 and 22 percent, respectively. For Chennai and Surat, during the first year of the pandemic, OSR was seriously impacted by the tax forgiveness program and deep economic contraction as a result of the high number of COVID cases. (Chennai reported the largest number of COVID cases among all cities in the case studies; see **Table 5**).

Figure 2: Current revenue structure of LG in the case studies in FY2019 or FY 2019/20 (Pre-COVID)

(OSR as % of total current revenue)



²⁹ In Romania, shared PIT is classified as OSR by Law on Local Public Finances. However, the allocation mechanism is determined at national government level through the State budget law.

Data Source: World Bank COVID impact case studies (2020) and author's analysis.

Notes:

- a) Shared taxes including Personal Income Tax are generally considered as IGT, except in Romania, where shared PIT is classified as OSR by the Law on Local Public Finances. However, the allocation mechanism is determined at national government level through the State Budget Law. In this Figure, the PIT is considered as IGT. Sibiu's OSR without PIT is about 42 percent of the total current revenue; OSR with PIT is about 92 percent of the total current revenue.

Table 5: Impact of COVID-19 on local governments' inter-governmental transfer and own source revenue (% change compared with pre-COVID position)

Country	City	IGT	IGT	OSR	OSR	PIT (LG share of)	VAT (LG share of)	Property tax
		FY 2020b	FY 2021b	FY 2020b	FY 2021b	FY 2020b	FY 2020b	FY 2020b
Romania	Sibiu	21%	N/A	2%	N/A	21%	22%	5%
North Macedonia	Kisela Voda	-5 to -9%	-2 to -5%	-9 to -11%	-5 to -6%	-6 to -10%	-6 to -10%	-9 to -11%
Bosnia and Herzegovina	Banja Luka	-6 to -10%	-1% to -5%	N/A	N/A	-10%	-6%	
Bosnia and Herzegovina	Tuzla	-5 to -10%	N/A	N/A	N/A	-10%	N/A	-10 to -20%
Colombia	43 cities	N/A	N/A	N/A	N/A	N/A	N/A	-34%
Bolivia	10 cities	-30 to -50%	N/A	-30%	N/A	-20 to -30%	N/A	N/A
Indonesia	Semarang	-11%	-8%	-15%	-5%	N/A	N/A	-15%
Morocco	National	-25%	N/A	-25%	N/A	N/A	N/A	N/A
		FY2020/21b	FY2021/22b	FY2020/21b	FY2021/22b			FY2020/21b
India	Ahmedabad	3%	-4%	23%	64%	N/A	N/A	18%
India	Chennai	93%	43%	-15%	-6%	N/A	N/A	-46%
India	Surat	-8%	21%	-22%	2%	N/A	N/A	-23%
		FY2019/20o	FY2021/22b	FY2019/20o	FY2021/22b			FY 2020/21b
Kenya	Nairobi	-28%	-29%	-17%	-22%	N/A	N/A	-10%
Kenya	Mombasa	-14%	-15%	-12%	-19%	N/A	N/A	-11%
Liberia	Monrovia	-28%	16%	-2%	14%	N/A	N/A	N/A

Data Source: Data are from World Bank teams COVID Impact to Municipal Finance case studies.

Notes:

- a) The Fiscal Year (FY) is different from city to city. The FY in Nairobi, Mombasa and Monrovia is from July 1 to June 30; the India government's FY runs from April 1 to March 31. FY for ECA cities is from January 1 to December 31. When referring to FY in this study, it follows the FY of each city and country.
- b) b - base scenario, p- pessimistic scenario, e – estimates, o- outturn.
- c) All data compared with pre-COVID positions. Indian cities FY 2021/22b compared to FY2019/20 before COVID data; African cities FY 2021/22b compared to FY2018/19 before COVID data; other cities compared to FY2019 before COVID data.
- d) Sibiu FY2020, Semarang FY 2020, Ahmedabad FY2020/21, Chennai FY2020/21, and Surat FY2020/21 used the outturn or the most updated estimate as of May 2021.
- e) The Sibiu OSR refers to OSR without PIT. OSR with PIT increased 13 percent in FY2020b.

Ahmedabad and Sibiu saw OSR increase by 23 percent and 2 percent respectively in the first year, making them the exception among all the case studies. For Ahmedabad, the key driver of the OSR increase was a massive, improved property tax collection effort from January to March 2021. Ahmedabad is the largest municipality of Gujarat in terms of both population and economic size. The increased revenue collection effort contributed to an 18 percent increase in property taxes, water and sewerage tax,³⁰ and other user charges. Another factor is an increase in vehicle tax collection which grew 5 percent as private vehicle sales grew during

³⁰ Ahmedabad Municipal Corporation collects property tax and water and sewerage tax together.

the first year of the pandemic when the public transport service was discontinued for about 4 to 6 months due to the lockdown measures in 2020. Ahmedabad's OSR performance is unique and remarkable compared with the other cities in the case studies; but the OSR data was reported before the current COVID spike. There is an increasing uncertainty after the new wave of COVID in India. For Sibiu, the OSR slightly increased by 2 percent, driven by an increase in property taxes by 5 percent.

Except for Nairobi and Mombasa, most cities are estimated to see OSR start to recover over the course of two to three years, without returning fully to pre-COVID levels. Sibiu and Ahmedabad are estimated to see continuing OSR growth rates; Surat and Monrovia are expected to see their OSR return to pre-COVID levels by the second year of the pandemic. For other cities, OSR will gradually recover from the first-year shock but will still stay below pre-COVID levels. Nairobi and Mombasa are expected to experience a very slow recovery in OSR after the initial shock with the aggregate impact over three fiscal years amounting to a 22 and 19 percent decline, respectively, compared with pre-COVID levels. Surat is estimated to see a sizable recovery in OSR in the second year, FY 2021/22, when the property tax collection is estimated to return to pre-COVID levels. The aggregate impact on OSR is shown in **Table 5**.

Decline in OSR is driven by both reduced or suspended economic activities and tax relief measures. During the pandemic, LGs introduced various fiscal measures (such as temporary tax cuts or tax deferrals) to relieve the impact of the economic crisis on households and businesses. For example, the Indian government has implemented a package of tax and fee reduction for citizens.³¹ Hence, a decline in OSR is often a combined result of lower tax or fee collections from reduced economic activities and fiscal measures (e.g. tax relief) adopted by local governments. Based on the currently available data in the case studies, it cannot be determined yet to what degree the impact can be attributed to the economic slowdown or to the fiscal measures. As more data becomes available, it will be useful to understand the disaggregated impact on OSR and which factor is the key driver.

Property tax is the main local tax in OSR, and it is estimated to be heavily impacted by the pandemic. OSR generally comprises property taxes, vehicle taxes, other local fees, and charges. For several cities, property tax is the main source of OSR. In ECA, property tax is estimated to have declined by about 10 to 20 percent. Colombia is estimated to have had a 34 percent decline nationally and Semarang a 19 percent decline in property tax in FY 2020. In India, for Surat and Chennai, property tax is estimated to have declined heavily by 23 and 46 percent respectively in FY 2020/21. Ahmedabad, as discussed earlier, has seen an increase in property tax due to increased collection efforts, along with the state election process, in the first quarter of 2021. Outturn data for Sibiu showed that property tax has continued its past growth with a slight increase by 5 percent in FY2020 (see **Table 5**).

Other local taxes, charges and fees are also likely be hampered by the pandemic and lockdown. LGs also collect fees and charges on local business, for example, business licenses, advertisement fees and hotel fees. The revenue items collected from local businesses most disrupted by the pandemic, such as tourism, hotels, restaurants, social events, are hardest hit in almost all the case studies. Utility fees and user charges are also

³¹ www.kotaksecurities.com/ksweb/income-tax/tax-exemptions-in-india. For example, the Indian government set the waiver of the 5 percent Goods and Services Tax or GST on export freight until September 2021. The government has proposed a new tax regime under Section 115 BAC. Taxpayers can either opt for the new regime or continue to pay taxes according to the existing regime. Individuals earning up to Rs 5 lakh per year will be eligible for a rebate (under Section 87A) of up to Rs 12,500 on tax payable. Deductions on transport allowance have been replaced by standard deduction of Rs 50,000. Deductions on health insurance premiums and medical expenses remain at Rs 50,000 under Section 80D. Health and education is to be levied at 4 percent on the sum of income tax and surcharge wherever applicable. Corporate tax has been minimized to 25% for companies with turnover of up to Rs 250 crore and 30% for turnover above Rs 250 crore.

estimated to have declined due to widespread lockdown measures, cutbacks in services and fee reductions or waivers to help reduce the financial burden on residents. The changes in local charges and fees are varied among cities but range from 10 to 20 percent.

Impact on Inter-governmental Transfers

State and national government transfers are important sources of revenue for LGs, especially when faced with reduced OSR. In ECA cities, the IGT includes a share of PIT,³² VAT, and tax equalization transfer, for which central government will make decisions on the amount of the tax allocation. VAT and PIT account for the major part of the IGT. In Sub-Saharan African cities, the IGT includes an equitable share of revenue raised nationally and conditional transfer. The equitable share can account for more than 90 percent of the IGT, e.g. in Nairobi. In India, the IGT, for example in Ahmedabad, includes assigned revenue (octroi compensation grant transfer) and other revenue grants transfers. The octroi compensation grant, which accounted for 95 percent of the IGT (except for the capital investment grant), is a pre-defined grant provided by the state quarterly during the year. Other revenue grants include an education grant, health grants, an election grant, etc.

The shrinking of government revenue and the reduced viability of the fiscal space from higher-level tiers of government has affected inter-governmental transfers to LGs. Globally, national government revenue in 2020 is estimated to have been, on average, 2.5 percentage points of GDP lower than in 2019.³³ National and state governments also find themselves financially constrained with reduced domestic revenue mobilization capacity. EMDEs announced fiscal support packages in 2020, although the packages were much less than those in the AEs with discretionary measures averaging only 1 percent of GDP. Most of these EMDE COVID-19 revenue and spending measures were deployed in 2020.³⁴ Weakening national government financial positions could affect transfer to LGs and have a more fundamental effect on the revenue position of LGs if the recovery is sluggish. For example, in Nairobi, the national government allocation³⁵ dropped by 28 percent in the first year of the pandemic as the national authorities experienced a drop in revenue collection by about Kes. 90 billion (or about 1 percent of GDP) in the first half of 2020. With a slow outlook for recovery, the sharp decrease in transfer shocked Nairobi's financial position significantly.

In the first year, all LGs in the case studies were affected by the decline in IGT except Sibiu, Chennai, and Ahmedabad. The decline in IGTs has been different among cities. Nairobi and Monrovia saw a 28 percent decline in FY2019/20,³⁶ the biggest drops among the case studies. This is followed by Morocco with an estimated drop by 25 percent, while Mombasa and Semarang are estimated to have seen a decline by 14 and 11 percent respectively. In contrast, strong support from state and national governments and a hike in IGT is the main contributing factor to the overall increase in current revenue for Chennai³⁷ and Sibiu. IGT to Chennai increased by 93 percent in the first year, while VAT transfers to Sibiu increased by 22 percent. This put both cities in a very

³² In Romania, City local government's PIT share is classified as OSR, but the allocation mechanism is set up at the central government level through the State Budget Law. Hence, here Sibiu's PIT share is discussed together with IGT. The PIT share to LGs is set by the Law on Local Public Finances, but annual percentage of fund allocation to local governments are made through the State Budget Law.

³³ <https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020>.

IFC (International Finance Corporation). 2020. "COVID-19's Impact on Sub-National Governments."

³⁴ Gaspar, V., W. R. Lam, P. Mauro, and M. Raissi. 2021. "Tailoring Government Support." IMF Blog, April 7, 2021.

<https://blogs.imf.org/2021/04/07/tailoring-government-support/>.

³⁵ The transfer is recorded as "Equitable Share of Revenue Raised Nationally".

³⁶ Including both equitable share of revenue raised nationally and conditional transfer. Equitable share is the majority in the current revenue.

³⁷ Refer to India Government's revenue grant, it is an unconditional transfer to the cities.

strong fiscal position to fight against COVID. Ahmedabad will also experience a slight increase (by 3 percent) in IGT as the city was allocated more health grant and election grants as discussed above while the assigned revenue / octroi compensation grant remain unchanged.

Over two to three years, IGT for most LGs will recover but will still stay below pre-COVID levels except for Sibiu, Chennai, Surat, and Monrovia. In ECA, IGT will slowly recover and by the end of FY2021, IGT will be below pre-COVID levels by 2 to 10 percent for most cities. On the contrary, Chennai will continue to see IGT increase in FY2021/22 but at a slower rate than in the first year of the pandemic, resulting in an aggregate IGT increase of 43 percent compared to pre-COVID levels. Surat is also expected to see a quick recovery in IGT with an aggregate increase of 21 percent compared to pre-COVID levels. The increase in IGT will be the major contributing factor to recovery in current revenue for Surat, which will help pull the revenue above pre-COVID levels by the end of FY2021/22. In Africa, there will be different stories. Sluggish recovery in IGT for Nairobi and Mombasa will lead to slow recovery in revenue for the two city counties ending with aggregate decline in IGT of 29 and 15 percent respectively by the end of FY2021/22. In contrast, current revenue in Monrovia is estimated to quickly recover and will have about a 16 percent increase compared to pre-COVID levels in FY 2020/21 benefiting from a national governmental transfer increase in the second FY, and the low number of COVID cases reported in the city (see **Table 5**).

The impact on IGT is mostly driven by changes in unconditional transfer which comprises the majority of IGT for most LGs. For ECA countries, the majority of IGT, the shared PIT and VAT, are highly elastic to the local economy. The decrease in IGT for ECA countries is mainly driven by the slowdown in economic activities and national governments' decisions to allocate tax to weaker capacity LGs as part of the equalization transfer. For Sub-Sahara African cities, e.g. Nairobi, the majority of IGT, Equitable Share of Revenue Raised Nationally, accounts for more than 90 percent of the IGT as unconditional transfer. For Indian cities, e.g. Ahmedabad, unconditional transfer comprises the majority of the IGTs from national and state governments.

Own Source Revenue vs. Inter-governmental Transfer

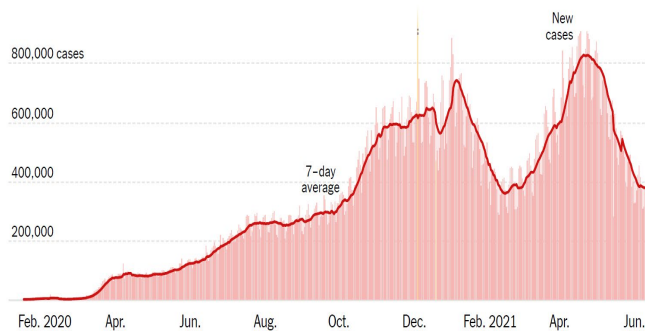
As observed in the case studies, the pandemic's relative impact on OSR vs. IGT will depend on the unique situation of each LG, including their national and local economic situation as well as differing pre-COVID revenue structure. For example, in Nairobi, Mombasa and Monrovia, the first year (FY2019/20) outturn data showed that IGT declined more than OSR. As these cities heavily rely on IGTs, a decline in IGTs has a more significant impact on current revenues. In ECA cities, which have a more balanced share of revenue from OSR and IGT, the impact on OSR and IGT are of similar magnitude (5 to 15 percent) and both contributed more equally to the decline in revenue.

IGT plays an important role in supporting local governments during the crisis. Most local government are not financially strong enough to buffer major shocks like the COVID-19 pandemic. National and state governments are in a much stronger position to raise financial resources and mobilize among cities that have experienced different levels of COVID shocks. Fiscal support from higher-level tiers of government to LGs plays a very important role in lifting LG financials during the crisis. In the case studies, Sibiu, Chennai, Ahmedabad, Surat, and Monrovia all received strong support from the national and state governments which proved to be one of the key factors to help them weather the shocks and quickly recover their financial positions.

The Risks and Uncertainty in Revenue Impact

The risk associated with the path of the pandemic could change the estimates on cities’ economic outputs and impact on revenue. In the short- to medium-term, major risks centering around how the COVID-19 pandemic will unfold remain high. The new reported COVID case numbers reached their new high in May 2021. Another wave of the pandemic is hitting many countries, which are experiencing even higher COVID case numbers, driven in part by the highly contagious Delta variant of the virus (see Figure 3). Worried about virus variants and the new surge, many countries are urging people to continue, or resume, lockdown and travel ban measures. In addition, these continued COVID-19 outbreaks and new variant COVID-19 caseloads have showed up more in EMDE countries and cities than in the Advance Economies (see **Figure 4: EMDEs reported much more new cases than AEs**). Thus, the base scenario estimation on revenue impact and recovery could be too optimistic for some of the countries and cities if these cities are swept up by the new wave of COVID outbreaks.

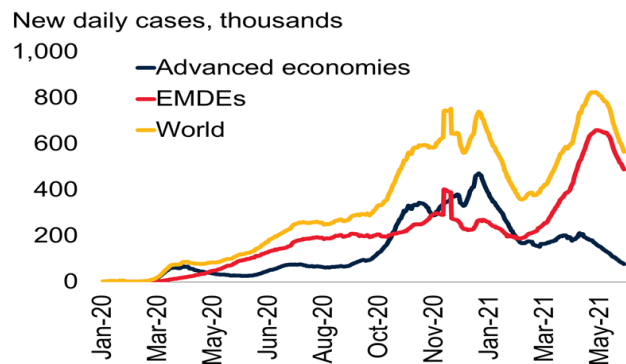
Figure 3: The global new reported COVID cases



Source: New York Times 2021b, “Coronavirus World Map: Tracking the Global Outbreak.”

www.nytimes.com/interactive/2021/world/covid-cases.html.

Figure 4: EMDEs reported much more new cases than AEs

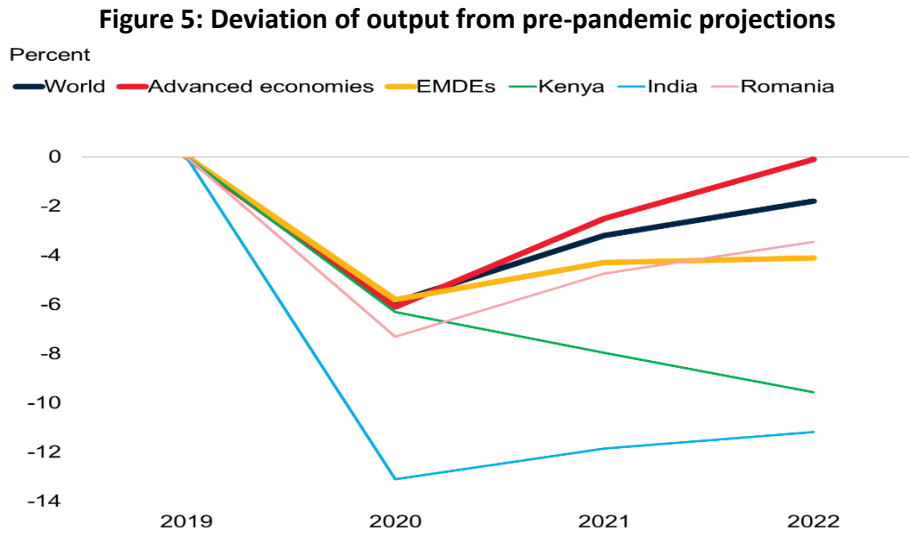


Economic recovery is not expected to be strong enough to fully recoup pre-COVID output levels in the near term in most EMDEs, which has increased the uncertainty of city local governments’ OSR and IGT recovery significantly. The recovery in many EMDEs remains constrained by high COVID-19 caseloads and the weak capacity to continue macroeconomic support. As seen in Figure 5, comparing the economic outputs estimates with pre-COVID economic outputs positions, recovery in EMDEs, in general, will lag behind that in Advanced Economies in the near term with growth remaining vulnerable to new waves of COVID-19 outbreaks.³⁸ Among the case studies, for example, Romania is estimated to see an average recovery at the level of the EMDEs; India’s recovery is being hampered by the largest COVID-19 outbreak of any country since the beginning of the pandemic; Kenya is estimated to see a slower recovery with continued reduced economic activity and lower investments caused by the pandemic in the medium term (See **Figure 5**).

There is big variance between the pessimistic and base scenario, which could change the magnitude of the impact on revenue significantly. For example, on the aggregate impact, the case estimate suggested that the variance between the pessimistic and base scenarios could be up to about 15 percent in SSA cities, 30 percent

³⁸ The deviation of outputs is compared between June 2021 estimated outputs and January 2020 estimates. Data sourced from the World Bank, June 2021 and January 2020, *Global Economic Prospects*.

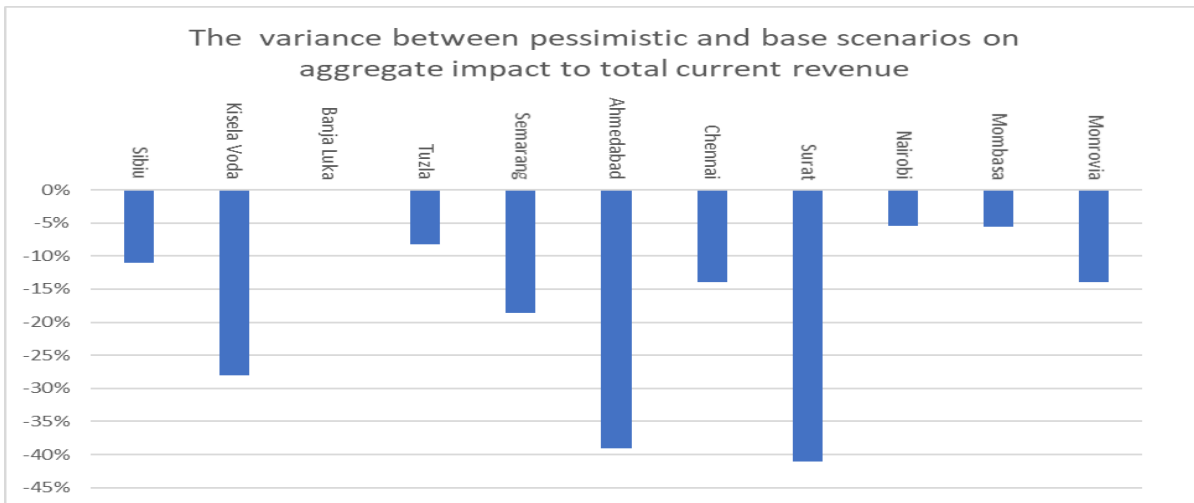
in ECA cities, and 40 percent in India cities (See **Figure 6** and **Table 4**). The risk of the more serious and prolonged pandemic, e.g. the new wave in India, has been considered in the pessimistic scenario estimation. As indicated in the estimation, the variance between the two scenarios could be so large that the LGs’ efforts to recover the revenue over the two years can be canceled out by new waves of COVID shocks if governments are not well equipped to deal with the risks.



Data source: World Bank, June 2021 and January 2020, *Global Economic Prospects*, with author’s analysis.

Notes: Figure shows percent deviation between the economic outputs estimated by the World Bank *Global Economic Prospects* in June 2021 and in January 2020. January 2020 is considered as the Pre-COVID economic position.

Figure 6: Variances between pessimistic and base scenarios on aggregate impact to total current revenue (% change from Pre-COVID level)



Data Source: Data are from World Bank teams’ COVID Impact to Municipal Finance case studies.

Notes:

- a) The “variance” is calculated as aggregate impact in pessimistic scenario (%) minus the aggregate impact in base scenario (%). See Table 4.
- b) The “Aggregate Impact” of total current revenue is presented as the percentage change of total current revenue compared with pre-COVID level. As shown in Table 4, the “Aggregate Impact” covers FY 2019 to FY 2021 - two fiscal years for Sibiu, Kisela Voda, Banja Luka, Tuzla and Semarang; FY2019/20 to FY 2021/22 - two fiscal years for Ahmedabad, Surat and Chennai; and FY 2018/19 to FY 2021/22 - 3 fiscal years for Nairobi, Mombasa, and Monrovia.
- c) Indian cities FY2019/20 are considered as before COVID; African cities FY2018/19 are considered as before COVID; other cities FY 2019 are considered as before COVID.

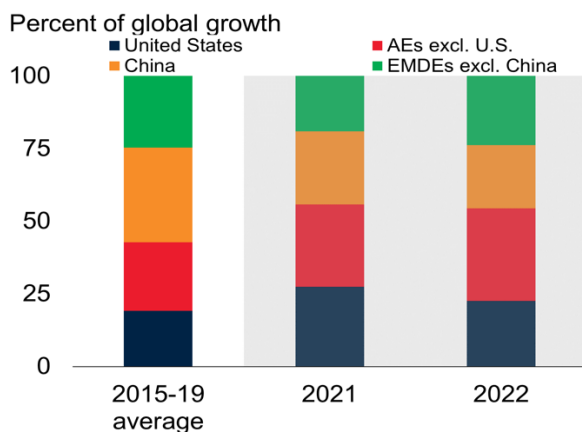
Box 2: The Uneven Economic Recovery and Risks

The world economy is experiencing an exceptionally strong but highly uneven recovery. Global growth is set to reach 5.6 percent in 2021, but the growth is only concentrated in a few major economies, with most emerging market and developing economies (EMDEs) lagging (See *Figure 7*). About 90 percent of advanced economies are expected to regain their pre-pandemic per capita income levels by 2022; only about one-third of EMDEs are expected to do so. In low-income countries, the effects of the pandemic are reversing earlier gains in poverty reduction and compounding food insecurity and other long-standing challenges.

Growth of many EMDEs remains constrained by high COVID-19 caseloads and the partial withdrawal of macroeconomic support. Aggregate global economic growth is not expected to be strong enough to fully recoup pre-COVID output losses in the near-term. New variants of COVID could extend the duration of the pandemic, and a sudden rise in interest rates or an increase in corporate defaults could trigger financial stress, resulting in weaker-than-expected activity.

Policy makers continue to face challenges for making decisions in this high uncertainty environment. EMDE growth could be more robust if the virus is controlled more quickly. However, vaccination progress has been slow, especially for EMDEs. Bottlenecks in production and vaccine logistical impediments could continue to slow the pace of vaccine rollouts. The continued circulation of the virus means that countries risk repeatedly cycling between making progress in reducing COVID-19 caseloads, followed by the re-emergence of the virus, triggering renewed declines in economic activity.

Figure 7: Share of global growth



Source: World Bank, June 2021, *Global Economic Prospects*.

4. IMPACT ON LOCAL GOVERNMENT EXPENDITURE

Summary

- *The impact on local government expenditure is driven by a combination of factors including LGs' fiscal capacity before COVID, the magnitude of the revenue shock caused by the pandemic as well as the amount of higher-level governments support. Overall, LGs adjust their recurrent expenditures by prioritizing expenditures related to COVID response and ensuring basic service delivery. Cities that entered the pandemic with a relatively strong fiscal position or received strong support from higher-level governments have more room to absorb revenue shocks and adjust recurrent expenditures.*
- *Capital expenditure in most cities will be affected more significantly than recurrent expenditure. Cities with fiscal capacity or strong IGT funding support are estimated to continue with their planned investment program in the first year. Over two to three fiscal years, aggregate impact on the capital expenditure (CAPEX) investment program is mixed among cities.*
- *Economic and policy uncertainty and the lingering negative effects of COVID-19 delayed many capital investments in most cities. The pessimistic scenario analysis shows that the variance in CAPEX is generally higher than in recurrent expenditure as local governments give more priority to recurrent expenditure to cover staff cost and government daily operating expenses in responding to the pandemic. The highest variance between the pessimistic and base scenario are estimated for Indian cities.*

The impact on LG expenditure is driven by a combination of factors including LGs' fiscal capacity before COVID, the magnitude of the revenue shock caused by the pandemic as well as national and state government support. LGs' total expenditure comprises recurrent expenditure, including compensation of employee and operations and maintenance (O&M) costs, and capital expenditure (CAPEX). In the case studies, recurrent expenditure and CAPEX are primarily financed by IGT and OSR. Some cities also used other financing mechanisms such as grants or loans from development partners, commercial loans, and previous year's reserves to finance the CAPEX. When the pandemic hit, most LGs in the case studies estimated that the expenditure on compensation of employees will stay at about the same level or slightly increase; O&M would see some adjustment due to prioritizing health services; while the impact on CAPEX would be more significant due to funding shortages, although this also varied among cities. **Table 6** and **Table 7** summarize the impact on recurrent expenditure and CAPEX in the case studies.

Table 6: Impact of COVID-19 on LG recurrent expenditure

Country	City	Recurrent Expenditure	Recurrent Expenditure (Base Scenario)		Recurrent Expenditure (Pessimistic Scenario)		Recurrent Expenditure Aggregate Impact from Pre-COVID level	
			% Change YoY	% Change YoY	% Change YoY	Aggregate Impact (%)	Aggregate Impact (%)	
			FY 2020b	FY 2021b	FY 2020p	FY 2021p	FY2019 to FY 2021b	FY2019 to FY 2021p
Romania	Sibiu		9%	-2%	9%	0%	7%	9%
North Macedonia	Kisela Voda		5%	4%	3%	3%	9%	6%
Bosnia and Herzegovina	Banja Luka		-1%	-1%	-1%	0%	-2%	-2%
Bosnia and Herzegovina	Tuzla		1%	-3%	6%	-9%	-2%	-4%
Indonesia	Semarang		-5%	2%	-5%	0%	-4%	-5%
Morocco	National		-10%					
			FY2020/21b	FY 2021/22b	FY 2020/21p	FY 2021/22p	FY2019/20 to FY2021/22b	FY2019/20 to FY2021/22p
India	Ahmedabad		12%	-5%	12%	-20%	6%	-10%
India	Chennai		41%	-4%	41%	-20%	36%	13%
India	Surat		-13%	43%	-13%	-20%	24%	-30%
		FY2019/20o	FY2020/21b	FY 2021/22b	FY 2020/21p	FY 2021/22p	FY 2018/19 to FY2021/22b	FY 2018/19 to FY2021/22p
Kenya	Nairobi	-9%	-8%	0%	-8%	-3%	-17%	-19%
Kenya	Mombasa	-19%	0%	1%	0%	1%	-18%	-18%
Liberia	Monrovia	11%	0%	2%	-5%	4%	13%	10%

Data Source: World Bank. 2020.COVID impact case studies.

Notes:

- The Fiscal Year (FY) is different from city to city. The FY in Nairobi, Mombasa and Monrovia is from July 1 to June 30; the Indian government's FY runs from April 1 to March 31. FY for ECA cities is from January 1 to December 31. When referring to FY in this study, it follows the FY of each city and country.
- b - base scenario, p- pessimistic scenario, e – estimates, o- outturn.
- Indian cities - FY2019/20 is considered as before COVID; African cities - FY2018/19 is considered as before COVID; ECA cities - FY 2019 is considered as before COVID.
- Sibiu FY2020, Semarang FY 2020, Ahmedabad FY2020/21, Chennai FY2020/21, and Surat FY2020/21 used the outturn or the most updated estimates as of May 2021. In these instances where the outturn or the most updated estimates by LGs are presented, the data in the base and pessimistic scenarios for these cities are the same.

Table 7: Impact of COVID-19 on LG CAPEX

Country	City	CAPEX	CAPEX (Base Scenario)		CAPEX (Pessimistic Scenario)		CAPEX (Aggregate Impact from Pre-COVID level)		
			% Change YoY	% Change YoY	% Change YoY	Aggregate Impact (%)			
			FY 2020b	FY 2021b	FY 2020p	FY 2021p	FY2019 to FY 2021b	FY2019 to FY 2021p	
Romania	Sibiu		-9%	32%	-9%	32%	21%	21%	
Bosnia and Herzegovina	Banja Luka		15%	-66%	-21%	-50%	-61%	-61%	
Bosnia and Herzegovina	Tuzla		-20%	13%	0%	0%	-10%	0%	
Indonesia	Semarang		-59%	33%	-59%	0%	-46%	-59%	
			FY2020/21b	FY 2021/22b	FY 2020/21p	FY 2021/22p	FY2019/20 to FY2021/22b	FY2019/20 to FY2021/22p	
India	Ahmedabad		-20%	50%	-20%	-20%	20%	-36%	
India	Chennai		71%	14%	71%	-20%	95%	37%	
India	Surat		-57%	137%	-57%	-20%	2%	-66%	
			FY2019/20o	FY2020/21b	FY 2021/22b	FY 2020/21p	FY 2021/22p	FY 2018/19 to FY2021/22b	FY 2018/19 to FY2021/22p
Kenya	Nairobi	-66%	-50%	-20%	-80%	0%	-87%	-93%	
Kenya	Mombasa	1%	-10%	3%	-15%	0%	-6%	-14%	
Liberia	Monrovia	-34%	6%	28%	-29%	78%	-10%	-16%	

Data Source: World Bank. 2020. COVID impact case studies.

Notes:

- The Fiscal Year (FY) is different from city to city. The FY in Nairobi, Mombasa and Monrovia is from July 1 to June 30; the India government's FY runs from April 1 to March 31. FY for ECA cities is from January 1 to December 31. When referring to FY in this study, it follows the FY of each city and country.
- b - base scenario, p- pessimistic scenario, e – estimates, o- outturn.
- Indian cities - FY2019/20 is considered as before COVID; African cities - FY2018/19 is considered as before COVID; other cities - FY 2019 is considered as before COVID.
- Sibiu FY2020, Semarang FY 2020, Ahmedabad FY2020/21, Chennai FY2020/21, and Surat FY2020/21 used the outturn or the most updated estimates as of May 2021. In these instances where the outturn or the most updated estimates by LGs are presented, the data in the base and pessimistic scenarios for these cities are the same.

Recurrent Expenditure³⁹

Overall, LGs adjust their recurrent expenditures by prioritizing expenditures related to COVID-19 response and ensuring basic service delivery. Common responses across LGs are to increase recurrent expenditures related to health and emergency services and identify all possible savings in non-urgent and non-essential spending. Besides health-related services, LGs have also planned for increases in budget directed towards social assistance programs. However, deep shocks to revenue put pressure on the operating margin. Cities which entered the pandemic with relatively limited fiscal space and had limited central and state government support were thus harder pressed to cut O&M expenditures (for example, Nairobi, Mombasa, Surat, Banja Luka, Semarang, and the Moroccan cities). Nairobi and Mombasa reduced recurrent expenditure by 9 and 19 percent in FY 2019/20 compared to FY 2018/19 by cutting spending on non-urgent activities such as administrative building services. Semarang cut recurrent expenditures by 5 percent mostly on travel and workshop expenses.

³⁹ In the case studies, the recurrent expenditure mainly includes compensation to employees and Operations & Maintenance expenditures.

Some LGs however found savings in some expenditure categories. For example, Banja Luka is estimated to have saved 1-2 percent through reduced operations (e.g. lighting, heating, travel, office, and professional services). (See **Table 6**).

Cities which entered the pandemic with a relatively strong fiscal position or received strong support from higher-level governments have more room to absorb revenue shocks and adjust recurrent expenditures. This group of cities is estimated to have increased their operating expenditures. For example, Sibiu, Tuzla, Ahmedabad, Chennai, and Monrovia are estimated to have increased recurrent expenditure in FY 2020/21 to fight against COVID-19. More funding was diverted towards the health sector to cover medical expenses and technical equipment, higher costs for cleaning, sanitation, and disinfection (goods and services). Sibiu was estimated to have increased operating expenditure by 9 percent to cover the operation of hospitals and additional costs related to COVID. Ahmedabad and Chennai are estimated to have increased their recurrent expenditure by around 12 to 41 percent, respectively, with funding support from the state and national governments (see **Table 6**).

Looking at the aggregate impact over the two-year period, recurrent expenditure for all LGs will return to pre-COVID levels except for Nairobi, Mombasa, and Semarang. On aggregate, impacts on recurrent expenditure in ECA, Indian cities and Monrovia are estimated to be moderate and will be positively impacted by an upward pressure to increase recurrent budget to respond to the pandemic. By the end of FY 2021, ECA cities' recurrent expenditure is expected to return to pre-COVID levels, and in some cases, exceed FY2019 levels by 10 percent. All the three Indian cities are estimated to see full recovery by the end of FY 2021/22 as recurrent expenditure are estimated to exceed pre-COVID levels by 6-36 percent, benefiting from quick recovery in OSR and increases in IGT. In contrast, by the end of the FY 2021/22, recurrent expenditures in Nairobi, Mombasa, and Semarang are not expected to return to pre-COVID levels. Recurrent expenditure from Nairobi and Mombasa are estimated to stay 17 to 18 percent below pre-COVID levels by FY 2021/22 given the slow recovery in IGT from the national governments. With their heavy reliance on IGT, these cities are less able to shield recurrent expenditure budgets from major revenue shocks. Semarang's recurrent expenditures are estimated to fall to 8 percent below pre-COVID levels by FY 2021. With slow OSR recovery and uncertainty of IGT transfers, the local government is estimated to reduce the operational expenditure budget to maintain the budget balance. (See **Table 6**).

Capital Expenditure

Capital expenditure in most cities will be affected more significantly than recurrent expenditure in the first year of the pandemic. Cities in Sub-Saharan Africa with limited reserves and no strong capital funding support from national governments are expected to see the biggest decline in CAPEX compared with LGs in other regions. With limited fiscal room, most LGs have little choice but to cut their capital expenditure to maintain budgetary balance. In Nairobi City County, CAPEX declined by 66 percent in FY 2019/2020 compared with FY 2018/19,⁴⁰ which is the biggest drop for Nairobi in the past five years and is estimated to be further affected in FY2020/21 and FY2021/22. Monrovia reduced capital expenditure by 34 percent in its FY 2019/20 outturn. With a reduction in capital income which is a combination of state and national grants, own funds, and loans, Ahmedabad, Surat,

⁴⁰ Data is from Kenya Ministry of Finance and World Bank case studies.

and Semarang are also estimated to see CAPEX decline by 20, 57 and 59 percent, respectively, in the first year of the pandemic. (See **Table 7**)

Cities with fiscal capacity or strong IGT funding support are estimated to continue with their planned investment program in the first year. Some cities in the case studies are estimated to continue with their capital expenditure and infrastructure program, e.g. Banja Luka and Chennai. Chennai continues its ambitious CAPEX program with funding support from the state government and an estimated 71 percent increase in the first year (see **Table 6**). Most ECA cities will have moderate adjustment to CAPEX with available resources from cash reserves (e.g. Sibiu) to fund capital projects, through issuance of bonds (e.g. Banja Luka), or from on-lending grants and loans (e.g. Kisela Voda).

Over two to three fiscal years, aggregate impact on the CAPEX investment program will be mixed. Some cities are estimated to return to pre-COVID CAPEX levels while others will not (see **Table 6**). In ECA, CAPEX in Sibiu is expected to increase by 21 percent compared to pre-COVID levels as their increased national government allocation and reserve fund allows them to continue with investment projects. Banja Luka and Semarang are estimated to experience a severe cut with about 61 and 46 percent decline respectively in CAPEX compared to pre-COVID levels to help budgetary adjustment in the face of revenue decline. In Sub-Saharan Africa, Mombasa and Monrovia are estimated to see CAPEX stay slightly below pre-COVID levels after two years. Nairobi is an outlier case with a major cut in CAPEX (87 percent) over three years compared to pre-COVID levels as it is expected that the national government will not be in the position to increase transfers soon. Cutting CAPEX is the only solution for the city to manage the COVID shock. For Ahmedabad and Surat, despite a substantial decline in the first year, rapid recovery is estimated for both cities in the second year as the cities are expected to improve their revenue position at the national and state levels driven by a strong economic growth projection. In FY2021/22, Chennai will see their CAPEX increase by 95 percent, the highest in the case studies, compared with pre-COVID levels, as increases in grant funding from the national and state government, as well as state-backed loan programs, help the city to sustain and increase CAPEX even in the midst of the pandemic.

The Uncertainty

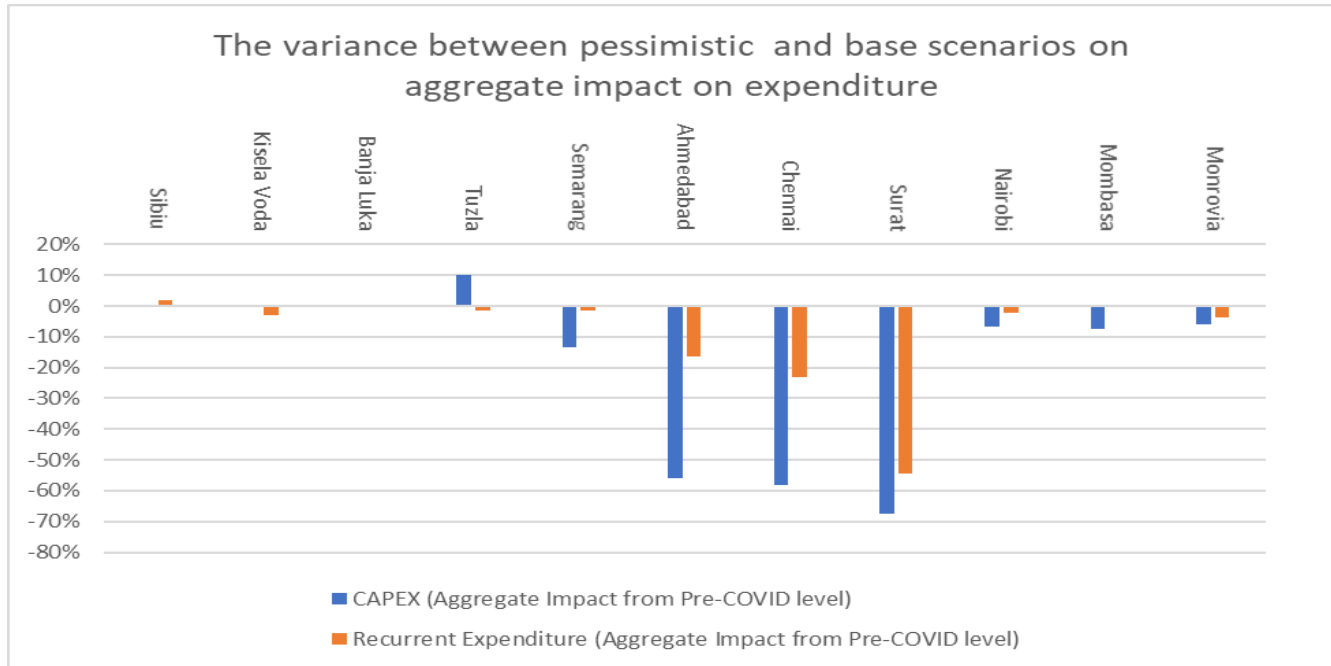
Economic and policy uncertainty and the lingering negative effects of COVID-19 have delayed many capital investments in most cities. The pace of accumulation of physical capital is likely to remain subdued for a prolonged period. Reflecting the reduced capital investment and limited policy space to further support demand, many countries are estimated to see reduced growth in 2021-22 and this reduced growth could be extended over the next decade.⁴¹ The slowdown in growth, which increases the uncertainty in revenue recovery, will further increase the uncertainty in expenditure. Thus, the down-side risk in expenditure, especially in capital expenditure, is increasing.

The pessimistic scenario analysis shows that the highest variance between the pessimistic and base scenario is estimated among the Indian cities. For ECA cities, the variance between the two scenarios is approximately within +/- 10 percent, considering many cities will use their reserve funding or receive national government support to buffer the expenditure shocks especially in the second year. (See *Figure 8*). Some ECA cities are estimated to see positive variance as the pessimistic scenario may entail higher government expenditure support

⁴¹ World Bank. June 2021. *Global Economic Prospects*.

to respond to COVID. SSA cities are estimated to see the variance within about –10 percent because under the base scenario, the cities’ capital investment is estimated to decline significantly already. Indian cities will see the largest variance because of the risks from the new wave of COVID and the uncertainty with the large stimulus package the government has launched. The variance in CAPEX is generally higher than in recurrent expenditure as local governments in EMDEs give more priority to recurrent expenditure to cover staff cost and government daily operating cost.

Figure 8: The variance between the pessimistic and base scenarios on aggregate impact to expenditure (% change from Pre-COVID level)



Data Source: Data are from World Bank teams COVID Impact to Municipal Finance case studies.

Notes:

- The “variance” is calculated as aggregate impact in pessimistic scenario (%) minus the aggregate impact in base scenario (%). See Table 6 and Table 7.
- The “Aggregate Impact” of total current revenue is presented as the percentage change of total current revenue compared with Pre-COVID level. As shown in Table 4, the “Aggregate Impact” covers FY 2019 to FY 2021 two fiscal years for Sibiu, Kisela Voda, Banja Luka, Tuzla and Semarang; FY2019/20 to FY 2021/22 - two fiscal years for Ahmedabad, Surat and Chennai, and FY 2018/19 to FY 2021/22 - 3 fiscal years for Nairobi, Mombasa, and Monrovia.
- Indian cities - FY2019/20 is considered as before COVID; African cities - FY2018/19 is considered as before COVID; other cities - FY 2019 is considered as before COVID.
- The positive variance in the above Figure shows the local governments are estimated to increase the expenditure for COVID emergency response with likely additional support from national government under the pessimistic scenario.

5. BUDGETARY ADJUSTMENTS

Summary

- *When municipal finance was disrupted by the COVID-19 pandemic, the local governments' pre-COVID financial positions and their reserves are among the factors the policy makers had to consider when making budgetary adjustment. Most cities' reserves or carry forwarded balances were depleted in the first FY of COVID impact. Other factors local governments have considered in their budgetary adjustments include national and local economic recovery and its impact on local government revenue and expenditure, the demand for service delivery and COVID responses, and the on-going risks associated with the pandemic.*
- *To ensure LGs' financial viability following the revenue shocks, local governments adjusted their budget through reallocation of financial resources and cut unnecessary expenditure to maintain budgetary balance. Three broad types of budget adjustment have emerged in the case studies, which can be summarized as:*
 - (i) A Buffered Shock. The shock on current revenue is buffered during the COVID crisis. The LG continues recurrent and capital expenditures as planned with slight adjustment (e.g. Sibiu, Romania).*
 - (ii) V-shaped Adjustment. Current revenue is shocked by the pandemic in the first year but is estimated for a quick V-shaped recovery (e.g. Surat, India). To balance the budget, the city must adjust recurrent expenditures and capital expenditures according to funding availability.*
 - (iii) U-shaped Adjustment. Current revenue is shocked by the pandemic and is estimated for a slow U-shaped recovery over two or more fiscal years (e.g. Nairobi, Kenya). Recurrent and capital expenditures must be adjusted based on available revenue resources to keep a balanced budget. However, without additional financial support, the recovery is expected to take a long time.*
- *With the new waves of COVID outbreaks and weak economic growth in many cities, local government decision makers continue to face challenges to efficiently allocate resources and adjust budget in a high uncertainty environment.*

The Pre-COVID Financial Position

When city local governments enter the COVID pandemic, their pre-COVID-19 financial positions and their available reserves are one of the factors they must consider when making budgetary adjustments. In principle, in most EMDEs, municipalities and cities are legally required to operate under balanced budget. In practice, local policies and accounting roles could address the balanced budget in different manners. Many cities try to keep some surplus on the balance sheet at the end of FY. These positive balances will be transferred to the next FY as an opening balance. In some cases, the positive balances are put as reserves in the LG's account. In advanced economies, e.g. the US, reserve funds for rainy-days are more common.

US state rainy-day funds fell for the first time since the Great Recession. In the US, most states have created reserve funds, or “rainy-day funds.”^{42, 43, 44} The rainy-day funds can help insulate LGs from changes in economic activities. The importance of rainy-day funds as a safety net became apparent in the Great Recession. Recent research has showed that the total amount set aside in the US state rainy-day funds fell for the first time since the Great Recession as lawmakers in fiscal year 2020 filled budget gaps driven by the pandemic’s early fiscal and economic fallout. Nearly a third of states in the US reported declines in the total dollar amounts of their savings, the most since 2010.⁴⁵ Fifteen states tapped a total of USD 12.4 billion from their rainy-day funds in the first budget year as a result of COVID-19 impact, according to data reported by the National Association of State Budget Officers.⁴⁶ Since the 2009 financial crisis, US state governments’ year-end balances (or the opening balance in the second FY, which is a combination of state reserve funds and any carry-forward balances) have on average hovered between 10 percent and 12 percent of general fund spending. This has provided some flexibility as states have grappled with the revenue fallout of the COVID-19 pandemic.

Among the eleven cities in the case studies which have opening balance data available, eight of them had a positive balance in the pre-COVID fiscal year (see Figure 9). Sibiu had a much higher reserve balance, accounting for about 80 percent of the city government’s total current revenue in the pre-COVID fiscal year, which was planned for capital investment and incremental recurrent expenditure over several fiscal years. The other seven cities, namely Ahmedabad, Chennai, Semarang, Kisela Voda, Banja Luka, Nairobi and Mombasa, had opening balances, either in the form of reserves or as carry-forward balances on each LG’s balance sheet, of about 5 to 15 percent of each LG’s total current revenue. Most of these reserves or carry-over balances were exhausted to fill the gap of the revenue decline and the increased demand for expenditure during the first budget year of COVID-19 shock.

The city governments’ reserve funds or carried-over balances are not the major sources of funding to fill the gap of the pandemic shock, given the relatively small scale of the funds compared with the significance of the revenue decline and demand for expenditure caused by COVID. While there are some exceptions, such as Sibiu which has a relatively high reserve funding that was effectively used to fund the emergency expenditures at the time of the pandemic, for all other cities, the major financial help was from the higher-level governments’ budget support. Nonetheless, the reserve funding or the carried-over balance from the previous year can provide some level of confidence of available resources during a time of crisis and give an indication of the local government’s financial position pre-COVID.

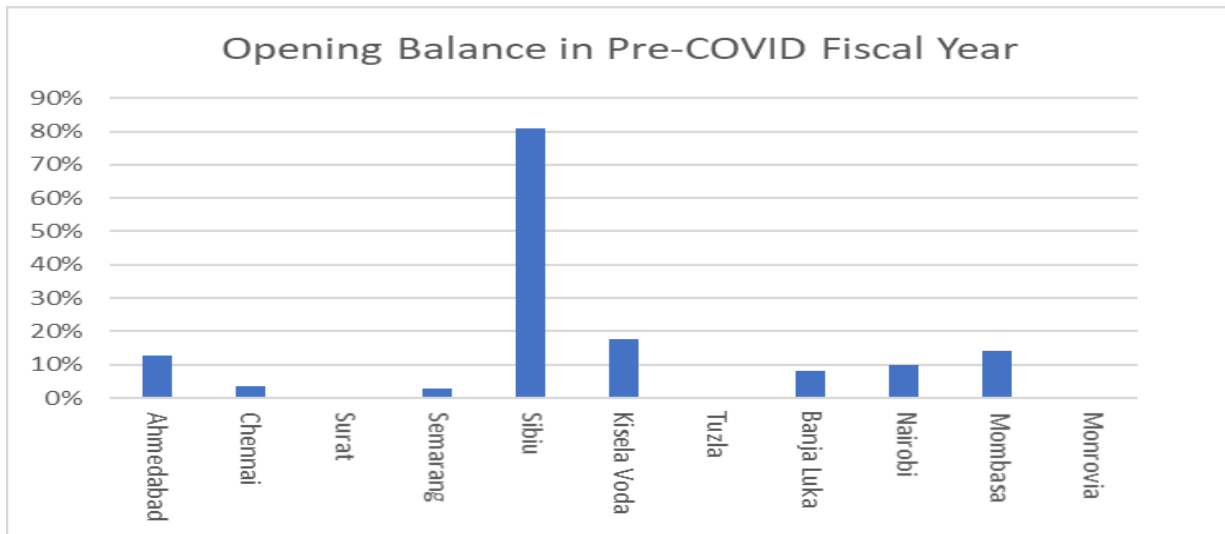
⁴² Wolkoff, Michael. 1987. “An Evaluation of Municipal Rainy Day Funds”. <https://onlinelibrary.wiley.com/doi/pdf/10.1111/1540-5850.00743>.

⁴³ Rosewicz, Barb, Justin Theal and Joe Fleming. 2021. “States’ Total Rainy Day Funds Fall for First Time Since Great Recession.” www.pewtrusts.org/en/research-and-analysis/articles/2021/05/17/states-total-rainy-day-funds-fall-for-first-time-since-great-recession.

⁴⁴ MRSC. 2021. “MRSC Fund Balance and Reserve Policies.” <https://mrsc.org/Home/Explore-Topics/Finance/Finance-Policies/Fund-Balance-and-Reserve-Policies.aspx>.

⁴⁵ The other deep decline was in 2009 financial crisis.

⁴⁶ Rosewicz, Barb, Justin Theal and Joe Fleming. 2021. “States’ Total Rainy Day Funds Fall for First Time Since Great Recession.” <https://www.pewtrusts.org/en/research-and-analysis/articles/2021/05/17/states-total-rainy-day-funds-fall-for-first-time-since-great-recession>.

Figure 9: Opening Balance in the Pre-COVID Fiscal Year (% total revenue in the same FY)

Data Source: Data are from World Bank teams COVID Impact to Municipal Finance case studies.

Notes:

- Pre-COVID fiscal years: Indian cities FY2019/20; African cities FY2018/19; other cities FY2019 is considered as before COVID FY.
- Used outturn data with author's analysis.

Local Government Budgetary Adjustment

To ensure financial viability of LGs following the revenue shocks, budgetary adjustments will be required. The adjustments will be done through efficient reallocation of financial resources and expenditure cuts to maintain budgetary balance. The extent to which LGs can make budgetary adjustments will depend on their previous fiscal positions, available own funding reserves, as well as available transfers from national and state governments. Three broad ways in which LGs adjust their expenditures emerge from the case studies and an example of each will be discussed below.

- The first type of adjustment, **Buffered Shock**, makes a modest fiscal impact as cities continue their recurrent and capital expenditure as planned with slight adjustments, e.g. with funding from reserve funds or increased fiscal transfers. Examples are Sibiu, Ahmedabad, and Chennai.
- Most cities follow the second type of budgetary adjustment, **V-shaped Adjustment**, where cities adjust their recurrent and capital expenditures by cutting less urgent items and programs in the first year with plans to recover in the second year. The level of recovery, however, is tightly linked to the recovery of OSR and IGT. Examples are Surat, most ECA cities and Semarang.
- The third type of adjustment, **U-shaped Adjustment**, is when cities are expected to experience some major downward adjustments in both recurrent and capital expenditure, and the recovery will be prolonged. With a slow outlook for recovery, it is expected that it will take longer for cities to return their revenue and expenditure positions to pre-COVID levels. Examples are Nairobi and Mombasa. However, the scale of impact is much smaller for Mombasa.

Considering the on-going new waves of the COVID outbreaks and uncertainty associated with the local economic recovery and risks in the financial sustainability, the budgetary adjustment shape experienced by cities could change over time.

Type 1: A Buffered Shock

The shock on current revenue is buffered during the COVID crisis. The LG continues recurrent and capital expenditures as planned with slight adjustment (e.g. Sibiu, Romania).

Before COVID, Sibiu municipality had a solid financial health with high revenues and strong cash reserves (see Figure 10). In the last five years, the municipality has accumulated significant budgetary surplus. As the pandemic hit, negative impact on revenue was offset by the national government's increased allocation of PIT and VAT (see Figure 10, Revenue) as well as their strong reserves. As a result, in FY 2020, the city's current revenue increased by 13 percent which allowed the city to continue with the planned expenditures.

The case study estimated that the city had enough space to finance the operating expenditure with its own revenue and the increased PIT and VAT share transfer (an increase of 21 and 22 percent in 2020 respectively). The current expenditure increased by 9 percent in FY 2020. The operating margin (current revenue minus operating expenditure) in FY 2020 increased by about 25 percent (see Figure 10, Recurrent Expenditure).

Sibiu's CAPEX is financed by national government grants, EU funds, reserve funding, and debt borrowing. Sibiu reduced its capital investment by about 9 percent in FY 2020 due to a slowdown of construction projects; as a result, the Sibiu city government has room to cut back its previous debt balance and is in a better position to plan the CAPEX in FY 2021 (see Figure 10, CAPEX).

On the downside, which assumes the COVID situation worsens, or economic recovery slows, the pessimistic scenario estimates that the city's revenue would experience some major decline in FY 2021 compared to FY 2020 or back to about the pre-COVID FY 2019 level (after an increase in FY2021. See **Figure 10**)

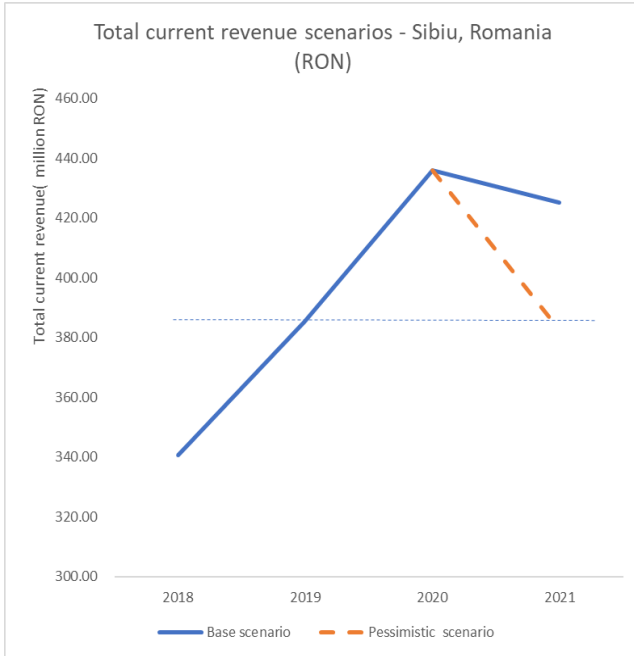
The revenue decline is unlikely to significantly affect Sibiu's expenditure under either scenario as the city government has strong reserves from previous years to cover the expenditure demand. The expenditures are estimated to increase even in the pessimistic scenario (see Figure 10, expenditures – see the orange line for pessimistic scenario). On recurrent expenditure, if the COVID situation deteriorates, it is estimated that the government will increase the O&M expenditure to provide additional health related services such as emergency response under the pessimistic scenario. The amount is estimated to be only a slight increase as the major COVID health care services and related cost would be covered by the national government as it was in FY 2020. On CAPEX, because Sibiu received strong national government support in FY 2020 and can draw on substantial reserves, the city has the financial space to implement the capital investment as planned in FY 2021 in both scenarios.

However, the city still has great exposure to COVID risks and financial uncertainty. The national economy recovers slower than the world average (See **Figure 5**, Romania). The financial risk would increase if the COVID-19 pandemic lasts longer than estimated or surges again.

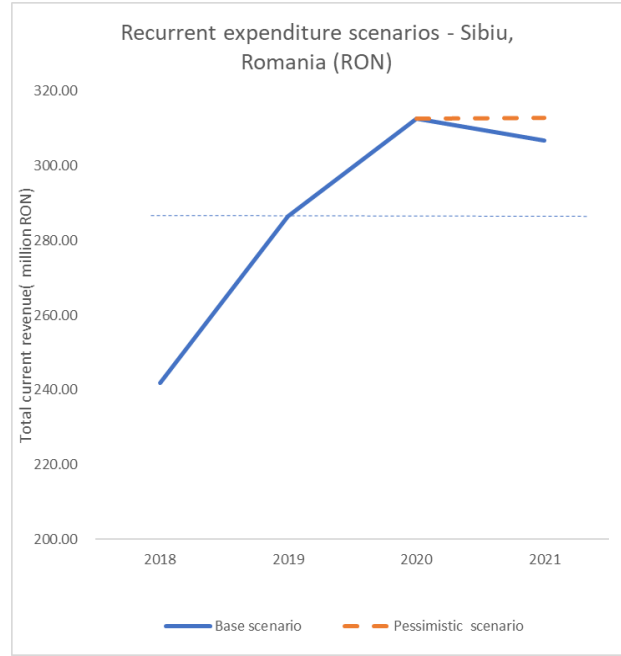
Ahmedabad and Chennai have shown a similar type of budgetary adjustment to Sibiu. Both Ahmedabad and Chennai have received timely support from higher-level government budget transfer to cover the revenue shock, but these cities are at higher risk than Sibiu due to the new wave of COVID-19 and with much less reserves than Sibiu's.

Figure 10: Scenarios for current revenue, recurrent expenditures, capital expenditures, Sibiu, Romania

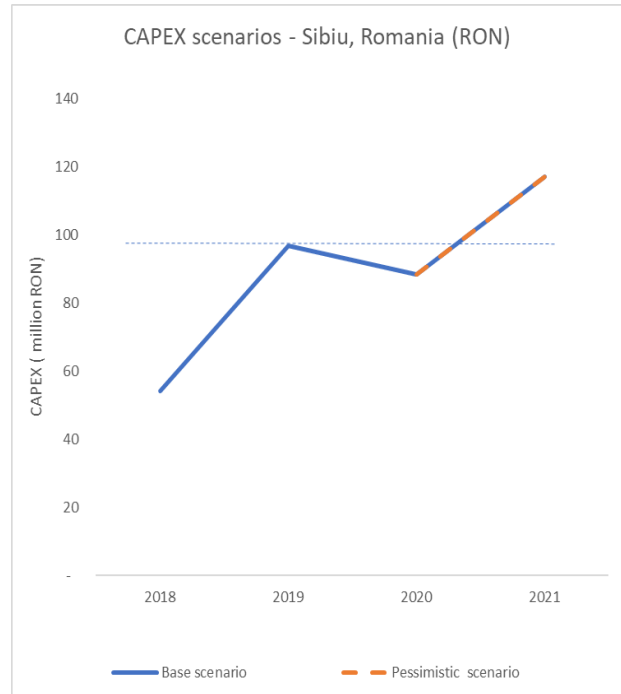
Revenue



Recurrent Expenditure



CAPEX



Data Source: Sibiu case study, data is extracted from the MFS models.

Notes:

- a) The Fiscal Year is from January 1 to December 31.
- b) FY 2019 to FY 2020 are outturn data. FY 2021 is estimated in the case study.
- c) The blue horizontal dotted line presents the level of revenue or expenditure as of FY 2019 Pre-COVID.

Type 2: V-Shaped Adjustment

The current revenue is shocked by the pandemic in the first year but is estimated for a quick V-shaped recovery. To balance the budget, the city must adjust recurrent expenditures and capital expenditures according to funding availability with a likely V-shaped adjustment (e.g. Surat, India).

Surat was running a balanced budget prior to the COVID-19 outbreak. Surat's municipal finance was constrained due to a rollback of a property tax hike in FY 2019/20 resulting in the operation surplus reaching its lowest level since FY 2015/16. As shown in Figure 11 (Revenue), the current revenue is shocked by the COVID crisis in FY 2020/21. After the pandemic hit, current revenue is estimated to decrease by 18 percent in the first year. Under the base scenario, current revenue is estimated to have a quick and strong recovery and will return to pre-COVID levels in FY 2021/22 through increased IGTs and a recovering OSR ending with a V-shape.

On current expenditure, to respond to the revenue shock, Surat must reduce expenditures in FY 2020/21. Under the base scenario, the IGT and OSR are expected to recover quickly, allowing the city to lift recurrent expenditure by an impressive 24 percent beyond pre-COVID levels in the second year. In addition, Surat's own funds including reserves from previous years will be utilized to fill any gaps in the operations margin resulting in the V-shaped adjustment. (See Figure 11, Recurrent Expenditure).

Surat's capital expenditure is mainly funded by state and national government transfers, loans, and OSR. As Surat allocates its financial resources to support recurrent expenditure, CAPEX is estimated to be cut by 57 percent in FY2020/21 based on available national and state government grant transfers. These IGTs are expected to recover in FY 2021/22, which will allow the city to return its CAPEX to about pre-COVID levels in the base scenario ending with a V shape (see Figure 11, CAPEX).

The estimated revenue and expenditure adjustments align with the projected growth recovery pattern in India. India's GDP in FY 2021/22, starting April 2021, is expected to expand 8.3 percent.⁴⁷ The GDP will benefit from the government's policy support, including higher spending on infrastructure, rural development, and health, and a stronger-than-expected recovery in services and manufacturing. Although the expected severe economic damage from the second COVID-19 wave and localized mobility restrictions since March 2021 could reduce the recovery expectations, economic activity is expected to follow the same, yet less pronounced, collapse and recovery seen during the first wave (see Figure 5, India). With that, the case study estimated a rapid recovery in FY 2021/22 with significant support from higher-level government expected.

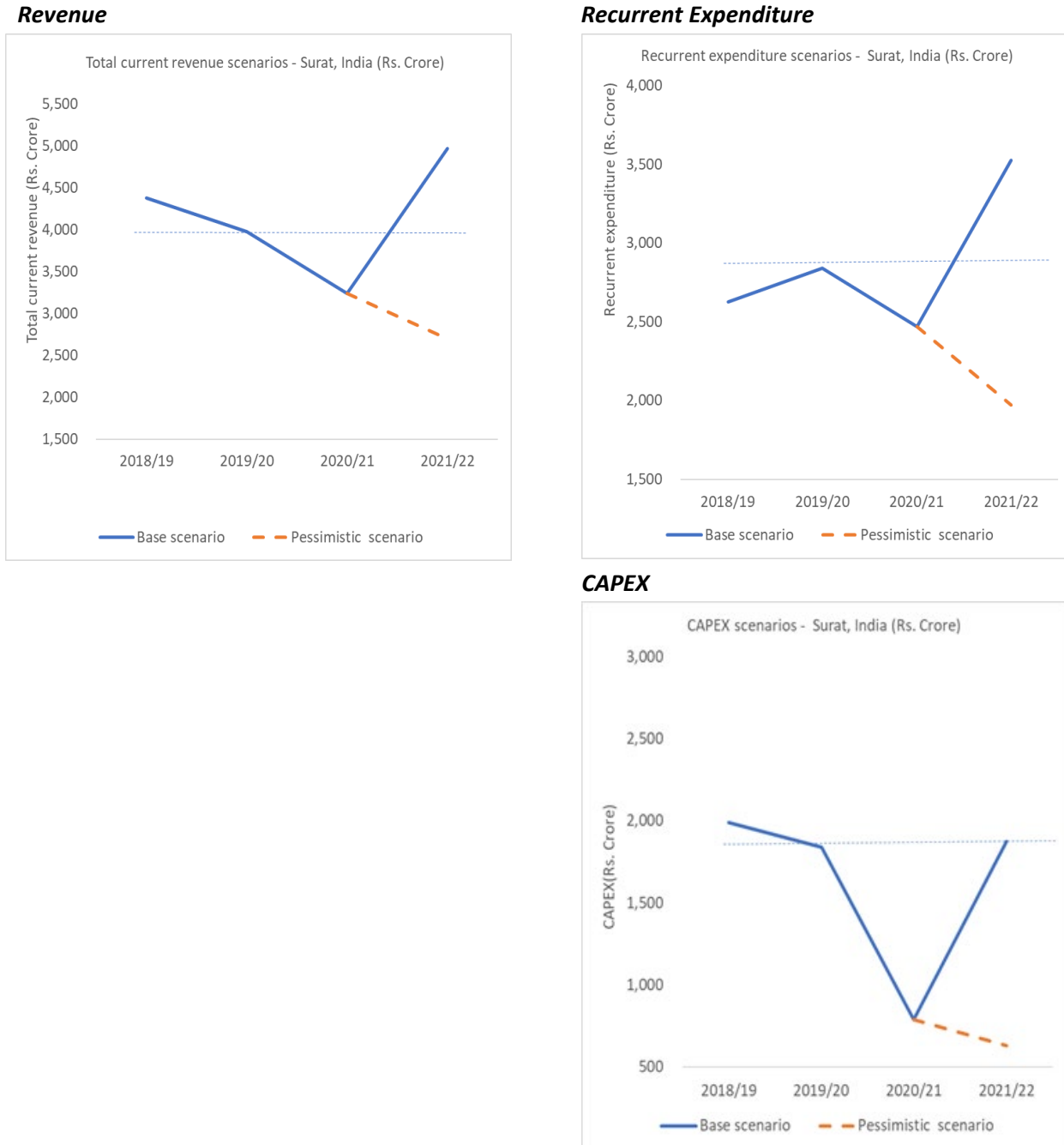
However, the financial risk remains high considering the magnitude of the second wave of COVID since March 2021 and the uncertainty regarding the duration of the wave. The pandemic will undermine consumption and investment as confidence remains depressed and balance sheets damaged. It could slow down the growth in FY 2022/23 and heighten uncertainty on job and income prospects. If the negative impact is exacerbated significantly, this could lead to the pessimistic scenario (See Figure 11 - the orange line is for the pessimistic scenario).

Under the pessimistic scenario, it is estimated that the city's revenue would further decrease, the operation margin would turn negative, and the government would experience a cash shortfall to cover its recurrent

⁴⁷ World Bank. June 2021. *Global Economic Prospects*.

expenditure or CAPEX. In such a scenario, the bottom of the “V” could be extended to FY 2021/22; or the scenario could become “U” shaped with a much slower recovery (See Type 3). The revenue recovery will rely heavily on national and state governments’ support to cover the deficit in FY 2021/22.

Figure 11: Scenarios for current revenue, recurrent expenditures, capital expenditures, Surat, India



Data Source: Surat case study, data is extracted from the MFSA models.

Notes:

- a) The Fiscal Year is from April 1 to March 31.
- b) FY 2018/2019, FY 2019/2020 are outturn data; FY 2020/21 is government revised estimates as of May 2021. FY 2021/22 is estimated.
- c) The blue horizontal dot line presents the level of revenue or expenditure as of FY 2019/20 Pre-COVID.

Type 3: U-Shaped Adjustment

Current revenue is shocked by the pandemic and is estimated for a slow U-shaped⁴⁸ recovery over three years or more; recurrent and capital expenditures must be adjusted based on available revenue to keep budgetary balance with a similar U-shaped adjustment (e.g. Nairobi, Kenya)

Before the pandemic, Nairobi exhibited a balanced budget. Once the pandemic hit, the negative impact on revenue for Nairobi has been considerable given that the national government transfer was reduced by 28 percent and OSR dropped by 17 percent in FY 2019/20. The total current revenue already decreased by 23 percent in FY 2019/20, three months after COVID, and is estimated to decline further in FY 2020/21 and FY 2021/22 ending with a U shape. The fiscal position stays a much longer time at the bottom of recovery after the shocks kick in (See Figure 12, Revenue). Revenue may only show signs of recovery in the fourth year.

To maintain budget balance and meet revenue shortfalls, the city makes large cuts to both recurrent expenditures (by 9 percent in FY 2019/20 compared to FY 2018/19, and in the base scenario by 17 percent in 2020/21 and 2021/22) and capital expenditures (cut by 66 percent in FY 2019/20 compared to FY 2018/19 and by over 80 percent thereafter). Such trends in recurrent and capital expenditures are estimated to continue well beyond three years. Given that the current revenue, especially national government fiscal transfer, is not estimated to significantly recover in the next two years, the Nairobi City County is not expected to return recurrent expenditures or CAPEX to pre-COVID levels in the short- to medium-term. Thus, under the base scenario, Nairobi will likely stay at a slow U-shaped recovery. (See Figure 12, Recurrent Expenditure and CAPEX). The city has little reserves from previous years which made it difficult for the city to buffer the revenue shocks without national government support when COVID hit. Nairobi runs the risks of not having sufficient funding to respond to COVID (see Figure 12, Recurrent Expenditure).

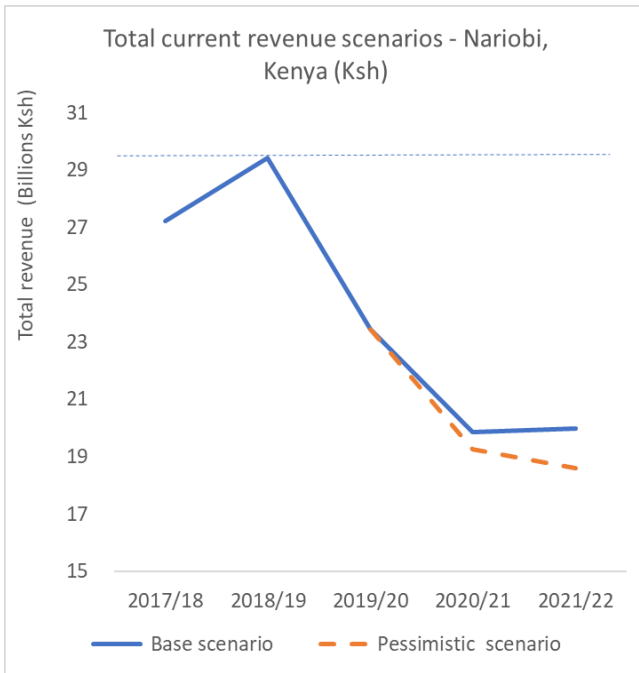
Kenya's economic growth outlook is estimated to resume at a slower pace than the EMDE average and remains below its pre-pandemic expectations (see Figure 5, Kenya). Lingering procurement and administrative hurdles are expected to slow the pace of vaccinations in the SSA region, which increases the uncertainty in the recovery expectations.

Under a pessimistic scenario, if the COVID situation worsens, it is estimated that the city's revenue would further decrease and the recovery would take even longer (see Figure 12, orange line). In such a scenario, the service delivery and capital investment functions of the local government would be even more significantly affected. In addition, if the city could not secure national government's timely support, and the local economic recovery lags far behind, the "U" shape adjustment could look more like a "J" shape in the medium term.

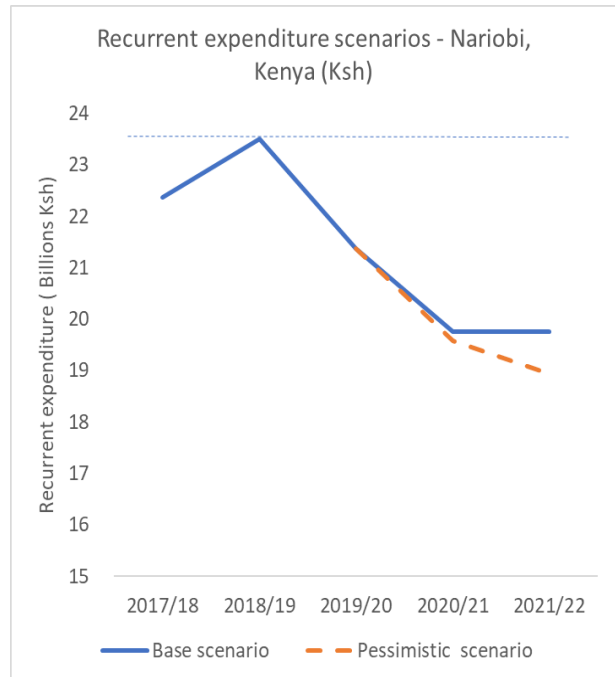
⁴⁸ The shape is a "modified" U shape where the bottom of the "U" can be long. It is estimated that in the Nairobi case study the revenue and expenditure recovery will only start in the third year after the COVID impact and the pace of recovery will be very slow. It may take more than four years for the revenue and expenditure to fully recover back to the pre-COVID level.

Figure 12: Scenarios for current revenue, recurrent expenditures, capital expenditures, Nairobi, Kenya

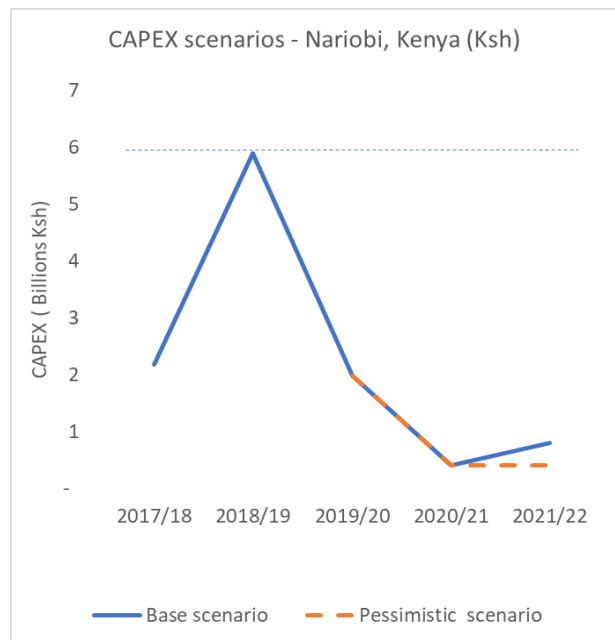
Revenue



Recurrent Expenditure



CAPEX



Data Source: Nairobi case study, data is extracted from the MFSA models.

Notes:

- a) The Fiscal Year is from July 1 to June 30.
- b) FY 2017/18, FY 2018/2019 and FY 2019/2020 are outturn data; FY 2020/21, FY 2021/22 are estimates. FY 2018/19 is considered as pre-COVID FY.
- c) The blue horizontal dotted line presents the level of revenue or expenditure as of FY 2018/19 Pre-COVID.

6. CONCLUSIONS

Overall, the COVID-19 pandemic caused serious but manageable impact to the financial health of the cities given that the economic recovery can be sustained as the pandemic passes, except for some outlier cases. For most cities, the impact can be managed over 2-to-3 fiscal year cycles, after which financial conditions will be substantially restored to pre-COVID levels. The outlier cases are characterized by particularly weak starting revenue positions and little ability of higher-levels of government to provide support due to their own fiscal space and constraints. This group of cities has been more vulnerable to the crisis and will see revenue fall precipitously. The gap in local governments' financial performance could likely be widened in the short- to medium-term. Nevertheless, recent events, e.g. the latest COVID outbreak spike in India, also indicate that recovery remains largely unpredictable.

Cities chose different paths to adjust their expenditure to moderate the impact on revenue shocks based on their financial conditions. In general, cities have managed the shocks with modest adjustments to operating budgets, prioritizing expenses on health care related services, and more dramatic cuts to capital expenditure budgets. Most cities are estimated to see a V-shaped recovery over 2 to 3 years after the current revenue is shocked by the pandemic in the first year. Cities with weaker financial capacity are under significant pressure to make major cuts in expenditure and will still see their fiscal position worsen with a slow outlook for recovery ending up with a likely U-shaped recovery. Cities which entered the pandemic with strong fiscal positions or have received timely strong budget support from higher-level government can manage and contain the shocks while ensuring that service delivery and capital investment remain little affected.

The crisis has highlighted the important role of robust and diversified revenue streams, timely support from higher-level tiers of government, and reserve funding in weathering the shocks. Fiscal support from higher tiers of government and local governments' reserve funds played crucial roles in helping cities fight the COVID crisis and sustain expenditure programs, especially for hard-hit cities with a high dependency on IGTs. Cities with strong OSR are expected to recover more quickly and remain better equipped to buffer the shocks to their expenditure programs. Local governments with stronger fiscal resources can consider setting up rainy-day funds, like the state governments have done in the US,⁴⁹ to help buffer the shocks and build more resilient fiscal practices.

The recovery could be slow and fragile for cities with weaker financial capacity. Global growth is recovering unevenly with growth mostly contributed by advanced economies leaving large uncertainty for cities from EMDEs. Economic recovery in low-income countries with weaker financial capacity will further lag behind. The economic recovery will also be more vulnerable for cities with higher exposures to COVID outbreaks and new waves as well as those with an uncertain pace of vaccination. The situation will worsen if the cities do not receive adequate support from higher levels of government. The pandemic could precipitate more fundamental challenges in their fiscal structure (e.g. long-term lag in capital investment). Strong support from external resource including from international donors would be needed to help them rebuild the financial capacity and economic growth which have been reversed during the crisis.

⁴⁹ Barb Rosewicz, Justin Theal and Joe Fleming, States' Total Rainy Day Funds Fall for First Time Since Great Recession, www.pewtrusts.org/en/research-and-analysis/articles/2021/05/17/states-total-rainy-day-funds-fall-for-first-time-since-great-recession.

Financial risk remains high for all cities given that the pandemic is still ongoing with unavoidable uncertainty.

Economic and policy uncertainty and the lingering negative effects of COVID-19 has raised uncertainty in economic and revenue recovery in many countries and cities, and delayed capital investments in most EMDE cities. The slow pace of vaccinations in EMDEs clouds the likely recovery timetable. The pessimistic scenario analysis shows that the highest variance between the pessimistic and base scenario are estimated for Indian cities (see Figure 6 and Figure 8). Even for cities with strong financial positions and reserves, if the pandemic is prolonged or worsens, financial risks could significantly increase. LGs will be required to closely monitor and proactively adjust their revenue, expenditure, and budget plans to mitigate the risks.

Building fiscal sustainability, resilience and capacity will be important to crisis response. The legacies of the pandemic will exacerbate the challenges to policy makers to balance the funding needs to support COVID response and post-COVID recovery while safeguarding fiscal sustainability. City LGs continue to face the challenge of balancing the need to provide health and other basic services to support the recovery, with that of ensuring fiscal sustainability and containing vulnerabilities to financial stress. As the study shows that pre-COVID financial position is one of the key determinants of COVID impact, the crisis highlights the needs for a longer-term agenda to strengthen local government fiscal capacity and resilience. This includes expanding the OSR base, improving expenditure efficiency, and setting up risk preparedness and mitigation mechanisms. Fiscal strengthening programs should be considered in integration with local economic recovery as sustainable growth is the foundation to establish sustainable revenue streams for cities.

ANNEX 1. INTRODUCTION TO THE COVID-19 IMPACT TO MUNICIPAL FINANCE CASE STUDIES

Case Studies List

The case studies reviewed in this study cover ten countries in seven Bank regions. There are 15 case studies, 12 of which are case studies for cities and 3 of the case studies cover a cluster of cities in a country (Bolivia, Colombia and Morocco). **Table 8** provides further details of the case studies including their status and the World Bank team involved. The section below summarizes the approach and methodology used in the case studies.

Table 8: The COVID-19 impact to municipal finance case studies included in the study

Bank Regions	Country	City	Study Status	Bank Team
AFE (Africa South and East)	Kenya	Nairobi city county	Drafted	Da Zhu, Abdu Muwonge, Patrick Nderitu Chege
		Mombasa county	Drafted	Da Zhu, Abdu Muwonge, Patrick Nderitu Chege
AFW (Africa West)	Liberia	Monrovia city	Drafted	Da Zhu, Stephen Ajalu, Rob Reit
EAP	Indonesia	Semarang city	Completed	Gayatri Singh, Jane Park, Edith Zheng Wen Yuan, Ikrar Eka Praya Gumilar, Jessica Ludwig
ECA ⁵⁰	Romania	Sibiu city	Completed	Carli Bunding-Venter, Noriko Oe, Damaris Bangean, Alexandru Damian, Marjan Nikolov
	North Macedonia ⁵¹	Kisela Voda	Completed	Marina Jandrevska, Marjan Nikolov, Tamara Nikolic Tatyana Shadrnova , Sanja Madzarevic-Sujster, Bojan Shimbov, Bekim Ymeri, Anita Bozinovska and Luan Aliu, Christoph Pusch, Massimiliano Paolucci, Ellen Hamilton and Dean Cira
		Gazi Baba - Skopje	Completed	Sasho Trajkov, Dean Lazarevski, Marjan Nikolov, Tamara Nikolic, Sanja Madzarevic-Sujster, Noriko Oe, Tatyana Shadrnova, Bekim Ymeri, Cveta Peruseska-Joncevska, Marco Mantovanelli
	Bosnia and Herzegovina	Banja Luka	Completed	Bozana Sljivar, Dejan Vujic, Marjan Nikolov, Tamara Nikolic, Goran Rakic, Sandra Hlivnjak, Lamija Marijanovic, Zuhra Osmanovic-Pasic, Gary Claude Goliath, Solene Dengler and Samra Bajramovic Christoph Pusch, Emanuel Salinas Munoz, Ellen Hamilton and Dean Cira.
Tuzla		Completed	Brankica Lenic, Marjan Nikolov , Tamara Nikolic, Sandra Hlivnjak, Lamija Marijanovic, Zuhra Osmanovic-Pasic, Noriko Oe, Axel E. N. Baeumler, and Samra Bajramovic, Suada Isakovic, Maida Hadzimehmedovic, Christoph Pusch, Emanuel Salinas Munoz, Ellen Hamilton and Dean Cira.	
LAC	Bolivia	10 cities	Drafted	Ayah Mahgoub, Jessica Grisanti, Marcelo Montalvo, Roberto Tejada

⁵⁰ The ECA Western Balkans country case studies were done in collaboration with Urban Partnership Program.

⁵¹ North Macedonia studies were led by municipal officials. The main authors are Sasho Trajkov (Gazi Baba) and Marina Jandrevska (Kisela Voda) and their associates. The World Bank team provided guidance and support. The Bank team thanks to the case study authors and their teams.

	Colombia	Selected cities	Completed	Vanessa Alexandra Velasco Bernal, Monica Almonacid, MC Montana y Asociados and Economía Urbana (Consultancy firms), Taimur Samad and David Sislen
MNA	Morocco	National	Completed	Augustin Maria, Augustin Maria, Herve Hocquard, Chaymae Belouali, Lamia Zaki, Jean-Briac Ligot
SAR	India	Ahmedabad	Drafted	Harsh Goyal, S R Ramanujam, Ankush Sharma
		Chennai	Drafted	Harsh Goyal, S R Ramanujam, Ankush Sharma
		Surat	Drafted	Harsh Goyal, S R Ramanujam, Ankush Sharma

Table 9: LG FY, FYs of COVID-19 impact, and data used

	LG Fiscal Year	First FY of COVID impact referred to in the paper	No. of months of COVID impact in the first FY (estimated)	Pre-COVID-19 data	Estimated impact from COVID-19	MFSA Model	Scenario Analysis
ECA case studies	Jan 1 – Dec 31	FY 2020	Approx. 10 months (Mar – Dec)	FY 19 outturn	FY 20 and FY 21 are estimated from scenario analysis	Applied	Applied
SSA case studies	Jul 1 – Jun 30	FY 2019/20	Approx. 4 months (Mar – Jun)	FY 2018/19 outturn	FY 2019/20 is outturn FY 2020/21 and 2021/22 are estimated from scenario analysis	Applied	Applied
Bolivia	Jan 1 – Dec 31	FY 2020	Approx. 10 months (Mar – Dec)	FY 19 outturn	FY 20 is estimated in scenarios	Applied	Applied
Colombia	Jan 1 – Dec 31	FY 2020	Approx. 10 months (Mar – Dec)	FY 19 outturn	FY 20 is estimated in scenarios	Not applied	Not applied
Indonesia	Jan 1 – Dec 31	FY 2020	Approx. 10 months (Mar – Dec)	FY 19 outturn	FY 20 is estimated in scenarios	Applied	Applied
India	Apr 1 – Mar 31	FY 2020/21	Approx. 12 months (April – Mar)	FY 2019/20 estimates with adjustment from budget	FY 2020/21 and 2021/22 are estimated in scenarios	Not applied	Applied
Morocco	Jan 1 – Dec 31	FY 2020	Approx. 10 months (Mar – Dec)	FY 19 outturn	FY 20 is estimated	Not applied	Not applied

Methodology and Data Used in the Case Studies

As the case studies were undertaken as standalone studies, the methodology and analytical approach may differ among case studies. In addition, data availability also impacted on the analytical framework used and how the impact is reported. Overall, the primary analytical tool used in most of the case studies is the Municipal Finance Self-Assessment (MFSA)⁵² model except for Colombia, India, and Morocco. Almost all case studies also conducted scenario analysis to analyze COVID-19 impact on municipal finance under different assumptions except for Morocco. **Table 9** provides mapping of methodology used in the case studies.

The fiscal year (FY) is different among case studies, which affected the consideration of the first year of COVID-19 impact. Due to the difference in fiscal year, the magnitude of impact on the first year could also vary depending on how many months of COVID-19 impact are included in the fiscal year. The above table provides details on the fiscal year, year of impact and data used in the case studies.

The analysis in this report focuses on the income and expenditures of the LGs on an annual basis and does not extend to the LGs' balance sheet or the underlying financial health of the various municipalities concerned in the case studies.

Interviews with international and local experts were used in most of the case studies to estimate the impact value under the pessimistic scenario given the uncertainty of the impact and diversity of city conditions.

Example of the Nairobi (Kenya) City County Case Study

Analytical framework: The case studies applied the MFSA model to conduct the impact assessment, and General Accounting Framework (GAF) analysis under with/without COVID scenarios.

Level of analysis: City or city county finance analysis, but also reflected some country level situations.

Data: The case studies used preliminary outturn data for FY 2019/20 (as of June 30, 2020). As the fiscal year is from July 1 to June 30, as of June 30, 2020, the COVID outbreak in these cities had lasted for about 4 months already. Therefore, the outturn data in FY 2019/20 already showed impact of COVID-19 on the city's financials. Data for FY 2020/21 and FY 2021/22 are estimated based on scenario analysis. Local experts' interview data are used when estimating the FY2020/21 and FY 2021/22 financials.

Scenario analysis: Scenario analysis is used to estimate the impact. There are three scenarios:

- a) The “**no COVID scenario**” is the without COVID or business-as-usual scenario. It assumes that LG finances will follow historical trends. The budget estimate is based on the national and LG fiscal budget plans before the COVID crisis and the trend of previous years' financial data.
- b) The “**base scenario**” refers to the scenario that is most likely to occur. When the data is available, the actual outturn data or the most updated estimates are presented in the base scenario. It is the most

⁵² Please see: *Better Cities, Better World – A Handbook on Local Government Self-Assessment*. <https://openknowledge.worldbank.org/handle/10986/32120>; and *Municipal Finances: A Handbook for Local Governments* <https://openknowledge.worldbank.org/handle/10986/18725>. Both books are co-financed by the Urban Partnership Program and World Bank.

referenced scenario in this study. Unless otherwise indicated, the data and analysis in this study is based on the base scenario.

- c) The “**pessimistic scenario**” refers to the scenario where the impact of COVID-19 is assumed to be severe and prolonged. The pessimistic scenario is included in the analysis to provide an indication of the range of impact given the uncertainty of the external shocks from the on-going pandemic.

Impact analysis: The case studies estimated the COVID-19 impact compared with the FY2019/20 outturn under three scenarios. The analysis is also complemented by local experts’ interviews to ensure the robustness of the estimates.

Example of the Scenario Analysis in Sibiu Case Study

In the Sibiu case study, the “base scenario” referred to the outturn data provided by municipal local government, where, as shown in Table 3 and 6, the total current revenue increased 13 percent from the previous year and total recurrent expenditure increased 9 percent. The total current revenue includes the breakdown items such as IGT, OSR and other local taxes (see **Table 5**). LG estimates and expert opinions are presented in the FY 2021 estimates in the base scenario (see **Table 10** below).

The pessimistic scenario analysis on revenue and recurrent expenditure draws on experts’ opinions and local government’s budget planning. A decrease of about 3-10% in revenues, both from the share of PIT and OSR, is estimated. However, given the municipality’s strong reserved funding and the slow-down in CAPEX in 2020, the increase in capital expenditure in 2021 is expected to be about 30%. Recurrent expenditure will see some slight adjustments.

Many case studies followed a similar methodology. Given the differences in local governments’ situations and local governments’ budget planning, the experts’ opinions were different. Details can be found in the individual case studies.

Table 10: Sibiu’s base and pessimistic scenario analysis with experts’ opinions

	COVID-19 impact Rational explanations	Base scenario COVID impact 2021 (%)	Pessimistic scenario COVID impact 2021 (%)
Total revenue			
Own Source Revenues Taxes and fees on properties Tax on buildings Tax on lands Judicial stamp fees, notarial stamp fees and other stamp fees Taxes on vehicles	Own Source Revenues will be negatively impacted by the suspended/reduced economic activity. Although the taxes paid by physical persons are expected to be collected almost in full, the ones derived from legal persons will most likely decrease – especially coming from the current directly hit sectors. National government relief funds for the most affected economic agents and population were paid from the central budget, with the LGs providing some tax cuts or suspension of local taxes. OSR estimated to drop on average 3-4%.	A negative impact of about 3-4%	A negative impact of about 10-15%
Fees for specific services Hotel Fees Tax on cultural performances	Sibiu municipality suspended hotel fees for 6 months to support the sector, while taxes for activities on the	A negative impact of about 5%	A negative impact of 10-15%

(concerts, theatre, etc) Specific local administration fees	public domain (including restaurants, terraces, etc) were also suspended.		
Shares and amounts from the income tax	For Sibiu municipality, the PIT share surged with over 41.7 million RON from 2019 to 2020, supporting the excellent financial result of the municipality. This increase corresponds to a 21.4% overall increase compared to FY2019, 2nd highest percentage increase since 2014. Pessimistic scenario estimated a decrease of about 10% in revenues in FY2021.	A negative impact of 3%	A negative impact of about 10%.
Shares and amounts from the VAT and equalization transfers Equalization transfers	VAT share increased on average 7%, with Sibiu standing at 13%.	A negative impact of 3%	A negative impact of 10%
Revenue part of projects funded from external sources / grants	Sibiu municipality expects a drop in revenues but will continue to support capital investments both from EU funds and own source revenues. The necessary funding will be supported from cash reserves if revenues drop significantly. The revenues will significantly improve compared to FY2019 due to the inflow of EU funds. If the state of emergency is prolonged and infrastructure sector is directly affected, then the budgetary forecast must be reviewed.	N/A	N/A
Subsidies from the state budget	The central government is expected to provide additional funds to municipalities with weaker financial health, although compared to FY2019 the support for Sibiu municipality is forecast to grow.	Minimal impact	Minimal impact
Expenditure			
Personnel costs Base salaries for employees Bonuses for working conditions State contributions	There is an increased demand for additional staff for services and departments directly linked to the Covid19 pandemic – Social Assistance, Local Police. Sibiu municipality manages to maintain personnel costs in the same margin as it detaches persons from other departments.	No impact	No impact
Goods and Services Water, waste management and sanitation Public Lightning and Heating, Fuel costs Maintenance and Operations Office Supplies Food allowances, Medicine and Sanitation	The municipality has one hospital under its direct coordination – a Pediatric Hospital –and has already provided an additional RON 5 million for technical equipment (additional funds are expected to follow). Additional costs are already deriving from public services such as sanitation and hygiene in the public domain and the total costs will depend on the length of the state of emergency. In the pessimistic situation, national government support will be provided. Costs related to administrative buildings will decrease due to suspended activity (e.g schools) or partial public activity. In 2020, Sibiu’s direct costs for mitigating COVID-19 pandemic represented only 3.5% of total expenditures.	2% increase in expenditure levels	No impact

Subsidies ⁵³ Subsidies for covering the difference between real costs and determined costs	Subsidies will maintain their forecast levels in FY2020. On one hand, there will be a decrease of costs as the local transport operator has lower number of vehicles operating due to a decrease in demand, but on the other, Sibiu municipality decided to support public transport by allowing children under 18 to use it free of charge after suspending the state of emergency.	No impact at the level of FY2020	No impact
Internal transfers between entities of the local public administration	Costs of entities under the public administration (Zoo, cultural institutions) will most likely decrease due to the suspension of their activities.	Decrease of costs by 10% compared to FY2020	Decrease of costs by 10% compared to FY2020
Interest Rates	Costs in line with the forecast. Sibiu has important cash reserves to finance both capital expenditure and day-to-day activities in case of a significant drop in yearly revenues. No substantial need for financing is foreseen.	No impact.	No impact.
Social Assistance Social benefits (cash or in-kind)	Social Assistance costs at the level of Sibiu municipality will increase, although they will depend on the length of the state of emergency and suspension of economic activities.	An increase of 10%	An increase of 15%
Costs incurred from projects funded from external sources / grants	Sibiu municipality is set to maintain and support all capital expenditure and EU-funded projects. In case of a financial deficit, the municipality can use the cash reserves to co-fund them. The on-going situation will be reviewed depending on the state of emergency. Costs of the projects may increase also due to the Covid safety measures introduced, and might be impacted by a lower financial capacity of the contractors that would extend the deadlines. The expenditure levels set by the municipality are significantly higher than in FY2019.	An increase of 10%	
Capital Expenditure Investments from own source revenues (e.g. infrastructure projects, construction, renovations, etc.)	Sibiu municipality is set to maintain and support all capital expenditure and infrastructure projects. In case of a financial deficit, the municipality can use the cash reserves to fund the capital projects. The forecast will be reviewed depending on the state of emergency. Costs of the projects may increase due to the safety measures and might be impacted also by a lower financial capacity of the contractors that would extend the deadlines. The expenditure levels are significantly higher than before COVID.	An increase of about 30%	An increase of about 30%

Source: The potential impact of the COVID-19 pandemic on Local Government's financial health in Romania: Developing alternative financial scenarios for Sibiu Municipality (case study, 2020/2021).

⁵³ Most subsidies refer to services such as the Local Transport and Waste Water Management.

REFERENCES

- ABC News. May 20, 2021. "India suffers record daily coronavirus deaths as total new cases dip slightly." www.abc.net.au/news/2021-05-02/india-suffers-record-daily-coronavirus-covid-19-deaths/100111164.
- Blanchard, O. J., J. Felman, and A. Subramanian. 2021. "Does the New Fiscal Consensus in Advanced Economies Travel to Emerging Markets?" PIIE Policy Brief 21-7. Washington, DC: Peterson Institute for International Economics.
- Bing.com. 2021. Data. https://bing.com/covid/local/ahmedabad_gujarat_india and https://bing.com/covid/local/chennai_tamilnadu_india.
- Farvacque-Vitkovic, C., M. Kopanyi. 2019. *Better Cities, Better World : A Handbook on Local Governments Self-Assessments*. Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/32120>.
- Gaspar, V., W. R. Lam, P. Mauro, and M. Raissi. 2021. "Tailoring Government Support." IMF Blog, April 7, 2021. <https://blogs.imf.org/2021/04/07/tailoring-government-support/>.
- GPURL (Global Practice for Urban, Disaster Risk Management, Resilience and Land). 2020. "Urban and Disaster Risk Management Responses to COVID-19." Note. April 3, 2020.
- IFC (International Finance Corporation). 2020. "COVID-19's Impact on Sub-National Governments."
- IMF (International Monetary Fund). 2021. "Fiscal Monitor: A Fair Shot. Washington, April." ---. June 2020. "World Economic Outlook Update, June 2020." www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020.
- IMF, Fiscal Affairs Department. July 2021. "Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic." www.imf.org/en/Topics/imf-and-covid19/Fiscal-Policies-Database-in-Response-to-COVID-19.
- Johns Hopkins University. 2021. "COVID updates". May 27, 2021. <https://coronavirus.jhu.edu/region>.
- Malpass, David. May 22, 2020. "May 22, 2020 end of week update: COVID response, desert locusts, a new chief economist, and more." <https://blogs.worldbank.org/voices/may-22-2020-end-week-update-COVID-response-desert-locusts-new-chief-economist-and-more>.
- Mathai, K., C. Duenwald, A. Guscina, A. R. Al-Farah, H. Bukhari, A. Chaudry, M. El-Said, F. Fareed, et al. 2020. *Social Spending for Inclusive Growth in the Middle East and Central Asia*. IMF Departmental Paper. December 2020. Washington, DC: International Monetary Fund. www.imf.org/en/Publications/Departmental-Papers-Policy-Papers/Issues/2020/09/25/Social-Spending-for-Inclusive-Growth-in-the-Middle-East-and-Central-Asia-49669.
- McKinsey. 2020. "Global Health and Crisis Response Note". May 6, 2020. www.mckinsey.com/business-functions/risk/our-insights/covid-19-implications-for-business.
- MRSC (Municipal Research and Services Center). 2021. "MRSC Fund Balance and Reserve Policies." <https://mrsc.org/Home/Explore-Topics/Finance/Finance-Policies/Fund-Balance-and-Reserve-Policies.aspx>.

- Nature Briefing News. April 21, 2021. "India's massive COVID surge puzzles scientists." www.nature.com/articles/d41586-021-01059-y.
- The New York Times. 2021a. "India Cut Back on Vaccine Exports as COVID Surges." March 25, 2021. www.nytimes.com/2021/03/25/world/asia/india-covid-vaccine-astrazeneca.html.
- . 2021b. "Coronavirus World Map: Tracking the Global Outbreak." www.nytimes.com/interactive/2021/world/covid-cases.html.
- Reinhart, C. M. 2021. "From Health Crisis to Financial Distress." Policy Research Working Paper 9616. Washington, DC: World Bank.
- Rosewicz, Barb, Justin Theal and Joe Fleming. 2021. "States' Total Rainy Day Funds Fall for First Time Since Great Recession." www.pewtrusts.org/en/research-and-analysis/articles/2021/05/17/states-total-rainy-day-funds-fall-for-first-time-since-great-recession.
- Schwartz, G., M. Fouad, T. Hansen, and G. Verdier. 2020. "Well Spent: How Strong Infrastructure Governance Can End Waste in Public Investment." Washington, DC: International Monetary Fund.
- Selassie, Abebe Aemro. 2020. "Sub-Saharan Africa's Difficult Road to Recovery" IMF blog. 22 October. <https://blogs.imf.org/2020/10/22/sub-saharan-africas-difficult-road-to-recovery/>.
- Serdar Yilmaz, Farsh Zahir. 2020. *Intergovernmental Transfers in Federations*. Edward Elgar Publishing.
- Statista.com. 2021. Data. www.statista.com/statistics/1104730/covid-19-infections-by-region-romania/ and www.statista.com/statistics/1136519/cumulative-coronavirus-cases-in-kenya-by-county/.
- Tenreyro, S. 2020. "Monetary Policy During Pandemics: Inflation Before, During, and After Covid-19." Online presentation, Bank of England, April 16.
- United Nations. 2020. *Sustainable Development Goals Report*. <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf>.
- Velasco-Bernal, Vanessa, and Monica Imonacid. 2021. "Colombia: Supporting Recovery from COVID-19 and Strengthening Resilience in Colombian Cities." June.
- WDI (World Development Indicators). 2020. <https://databank.worldbank.org/source/World-Development-Indicators>.
- WHO (World Health Organization). 2021. "WHO Coronavirus (COVID-19) Dashboard: Situation by WHO Regions." https://covid19.who.int/?gclid=CjwKCAiArbv_BRA8EiwAYGs23GRtOfn8DMeloAmidYuMWOBsRfrN893AJLTNSP-zj-XKtRypLmgY5BoCwp4QAvD_BwE.
- Wolkoff, Michael. 1987. "An Evaluation of Municipal Rainy Day Funds". <https://onlinelibrary.wiley.com/doi/pdf/10.1111/1540-5850.00743>.
- World Bank. March 2021. "From COVID-19 Crisis Response to Resilient Recovery—Saving Lives and Livelihoods while Supporting Green, Resilient and Inclusive Development (GRID)." Washington, DC: World Bank.

www.devcommittee.org/sites/dc/files/download/Documents/2021-03/DC2021-0004%20Green%20Resilient%20final.pdf.

---. January 2021. *Global Economic Prospects*. Washington, DC: World Bank.

---. March 2020. "World Bank's Response to COVID-19 Multi-sector Policy Directions and Options." March 29. Internal Note.

---. June 2020. *Global Economic Prospects*. Washington, DC: World Bank.

---. June 2020. *The Global Economic Outlook During the COVID-19 Pandemic: A Changed World*.
www.worldbank.org/en/news/feature/2020/06/08/the-global-economic-outlook-during-the-covid-19-pandemic-a-changed-world.

---. November 2020. *Kenya Economic Update, November 2020: Navigating the Pandemic*.
<https://openknowledge.worldbank.org/handle/10986/34819?show=full>.

City local governments have been facing multiple challenges due to the COVID-19 pandemic to secure adequate financial resources for response and recovery. This report assesses the impact of the pandemic on local governments' financial situations through cross-country analysis and comparison. Three indicative types of local government adjustments are discussed and scenario analysis is used to highlight the risks and uncertainties associated with the pandemic's impact and subsequent economic recovery.