Macroeconomic Resilience: The Cases of Senegal and Mali

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About CoMPRA

The COVID-19 Macroeconomic Policy Response in Africa (CoMPRA) project was developed following a call for rapid response policy research into the COVID-19 pandemic by the IDRC. The project's overall goal is to inform macroeconomic policy development in response to the COVID-19 pandemic by low- and middle-income countries (LMICs) and development partners that results in more inclusive, climate-resilient, effective and gender-responsive measures through evidence-based research. This will help to mitigate COVID-19's social and economic impact, promote recovery from the pandemic in the short term and position LMICs in the longer term for a more climate-resilient, sustainable and stable future. The CoMPRA project will focus broadly on African countries and specifically on six countries (Benin, Senegal, Tanzania, Uganda, Nigeria and South Africa). SAIIA and CSEA, as the lead implementing partners for this project, also work with think tank partners in these countries.

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This project is supported by the International Development Research Centre (IDRC). The IDRC is a Canadian federal Crown corporation. It is part of Canada's foreign affairs and development efforts and invests in knowledge, innovation and solutions to improve the lives of people in the developing world.

Executive summary

In this policy insight, for comparative purposes, we examine the resilience of the Senegalese and Malian economies in the face of the main shocks they faced between 2000 and 2022 and the policy responses adopted to counter their impact. The study shows that Mali has experienced more internal shocks than Senegal, mainly due to its vulnerability to climatic, political, health and security problems. However, crisis response policies in both countries have partially mitigated the negative impact of the shocks. This is the reason Senegal and Mali should act quickly to develop their resilience to future crises. This requires the implementation of counter-cyclical fiscal and

monetary policies, and strengthening their performance in terms of trade, industry, human capital and governance. It is essential to adapt these policies to the unique context of each country, including its strengths and limitations.

Introduction

Africa faces a range of economic, social and environmental challenges. One of the most critical issues for ensuring sustainable and inclusive development in African countries is their ability to withstand crises. Economic resilience refers to the ability of an economy to minimise the negative impact of a crisis on the well-being of its people. Many African economies, including those of Senegal and Mali, are exposed to a variety of shocks, such as those related to climate, health, politics, finance and commerce. It is, therefore, essential to examine the shocks these economies have experienced and the effectiveness of the policies implemented to deal with them to promote their development and resilience.

"Many African economies, including those of Senegal and Mali, are exposed to a variety of shocks"

This policy insight focuses on comparing the resilience of the Senegalese and Malian economies to the main shocks they faced between 2000 and 2022. Senegal is a middle-income country with a gross domestic product (GDP) of $31.14 billion (2023)[1] and population of 17.9 million (2023).[2] Mali is a low-income country with a GDP of $21.31 billion (2023)[3] and population of 23.5 million (2023).[4] These countries are characterised by a fairly rapid demographic evolution of their population (2.6% for Senegal and 3.1% for Mali in

"In 2022, the World Bank estimated the growth of GDP per capita ($1 599) in Senegal at 1.5% and that in Mali ($833) at 0.5%"

1 International Monetary Fund, 'GDP, Current Prices – Senegal', World Economic Outlook (October 2023) – GDP, current prices (imf.org).

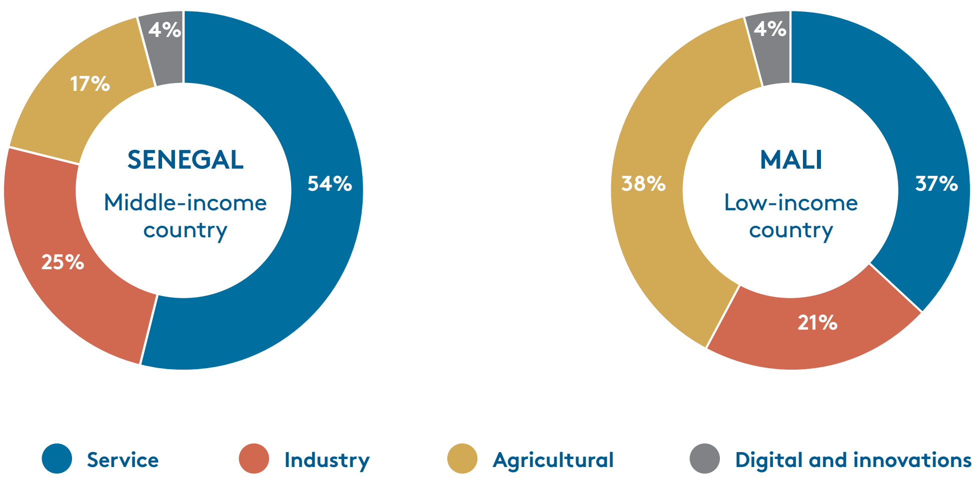
2 Worldometer, 'Senegal Population', Senegal Population (2024) – Worldometer (worldometers.info).

3 International Monetary Fund, 'GDP, Current Prices – Mali', World Economic Outlook (October 2023) – GDP, current prices (imf.org).

4 Worldometer, 'Mali Population', Mali Population (2024) – Worldometer (worldometers.info).

2022).[5] In 2022, the World Bank estimated the growth of GDP per capita ($1 599) in Senegal at 1.5% and that in Mali ($833) at 0.5%.[6] The analysis is based on a review of existing literature and an analysis of official statistical data, specifically the World Development Indicators and interviews with economic actors and political decision makers. Mali and Senegal are selected for comparison for several reasons. Both countries are members of ECOWAS and belong to the same economic and monetary zone, the West African Economic and Monetary Union (WAEMU). Therefore, they share a common macroeconomic framework and are subject to the same convergence rules. They have similarities in terms of their economy, with a primary focus on agriculture, which employs around 70% of the workforce. However, they also have differences in their productive and commercial specialisations. Both countries have experienced typical and specific shocks that have tested their resilience. By comparing these two economies, we can identify the strengths and weaknesses of each country in the face of crises and learn lessons to strengthen their economic resilience.

Figure 1 Distribution of GDP in Senegal and Mali according to economic sectors in 2022



Source: Based on World Bank Development Indicators, https://datatopics.worldbank.org/world-development-indicators/

5 World Bank, 'Population Growth – Annual % – Senegal', World Development Indicators | DataBank (worldbank.org); World Bank, 'Population Growth – Annual % – Mali,' World Development Indicators | DataBank (worldbank.org).

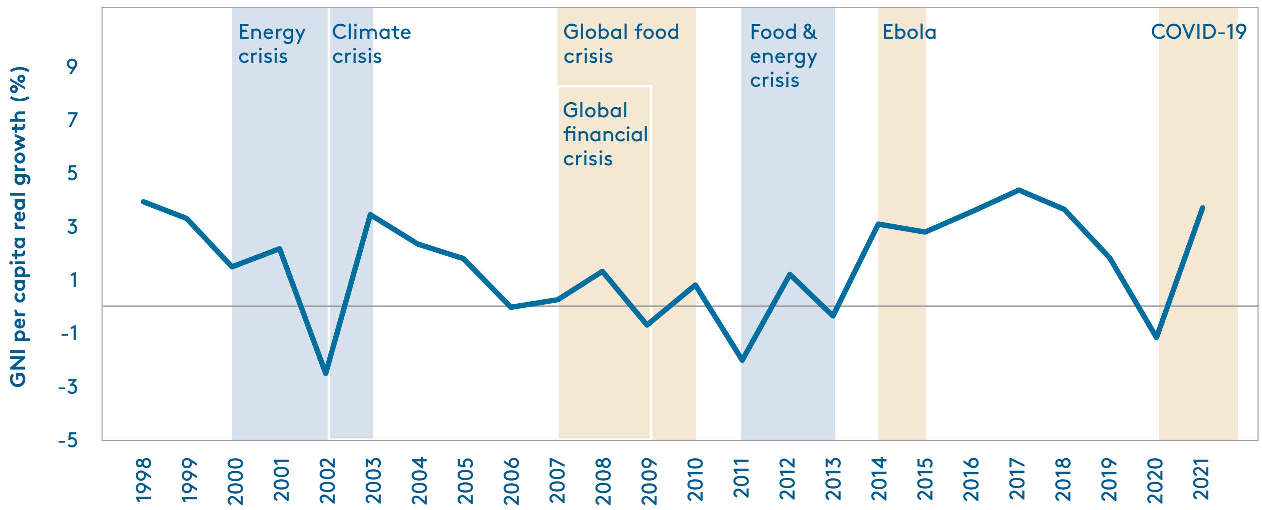
6 World Bank, 'Growth of GDP Per Capita', World Development Indicators | DataBank (worldbank.org).

The nature of macroeconomic crises in Senegal and Mali

Between 2000 and 2022, Senegal and Mali faced many crises and shocks, both domestically and globally/regionally. These are highlighted in Figures 2 and 3, which map the shocks and the evolution of gross national income per capita in the two countries. It is crucial to note that Mali experienced more domestic shocks than Senegal, primarily due to its vulnerability to climate and security issues.

"Mali experienced more domestic shocks than Senegal, primarily due to its vulnerability to climate and security issues"

Figure 2 Senegal's crisis events and their impact on incomes

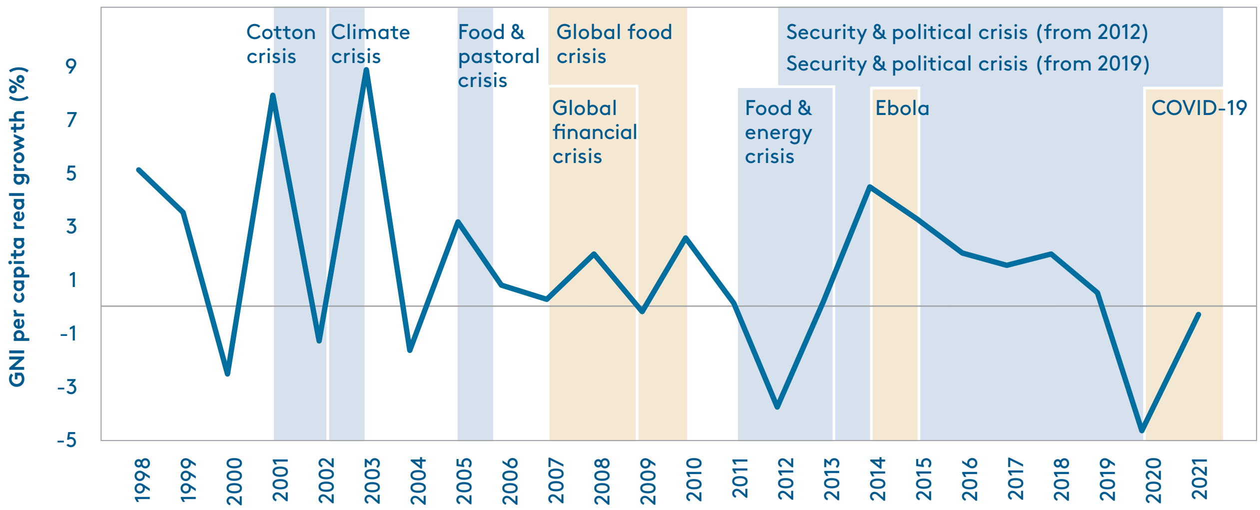


Source: World Development Indicators (World Bank) – Ministry of the Economy and National Statistics Agency, Authors' own elaborations, https://data.worldbank.org/indicator/NY.GNP.PCAP.KD.ZG?end=2022&locations=SN-ML&start=2000

Global and regional crisis events

Mali has faced several major exogenous crises. The first is the cotton crisis of 2001–2002. This shock affected all African cotton-producing and -exporting countries as

Figure 3 Mali's crisis events and their impact on incomes



Source: World Development Indicators (World Bank) – Ministry of the Economy and National Statistics Agency, Authors' own elaborations, https://data.worldbank.org/indicator/NY.GNP.PCAP.KD.ZG?end=2022&locations=SN-ML&start=2000

prices significantly fell due to heavy subsidies in the US.[7] The second is the regional food and pastoral crisis in 2005–2006 caused by drought and a locust invasion. As a result, Mali has seen a significant drop in agricultural production and a rise in food insecurity. The 2007–2012 drought that affected the prices of basic foodstuffs significantly impacted net food-importing countries such as Senegal and Mali, whose dependence on imports transmitted the shock to their economies. Both countries experienced an increased cost of living, especially for the most vulnerable segments. A second food crisis caused by drought occurred from 2011–2013. This was coupled with an energy crisis and significant electricity shortages as a result of the drought, which led to rising food and oil prices. This crisis was common to the countries of the Sahel and led to worsening food insecurity, high social tensions and inflation in both Senegal and Mali. However, in terms of the overall impact on economic performance in Senegal and Mali, the global financial crisis[8] was more muted in terms of the period of negative growth.

The two countries have also been hit hard by global and regional health crises, with the Ebola crisis (2014–2015) and the COVID-19 pandemic (2020–2021) being the most significant. The Ebola epidemic, which originated in Guinea and spread to other West African countries, severely impacted Senegal and Mali's trade and services sectors, particularly tourism, but did not

7 Elinor Lynn Heinisch, 'West Africa versus the United States on Cotton Subsidies: How, Why and What Next?,' *The Journal of Modern African Studies* 44, no. 2 (Jun 2006): 251–274, https://www.jstor.org/stable/3876157.

8 This crisis was caused by speculation in the US real estate market, sub-prime borrower defaults and global financial market contagion. African countries that have opened up to international trade were significantly affected by this crisis despite its being triggered externally.

lead to a recession. In contrast, during COVID-19, which originated in China but quickly spread worldwide, most countries declared a state of emergency, thereby drastically reducing mobility and economic activity. The COVID-19 crisis had more severe consequences than the Ebola crisis due to the relatively rapid spread of the virus and the fact that it also affected developed countries, particularly with the slowdown in remittances during the crisis, which were very important for both countries.

In 2022, the conflict between Ukraine and Russia emerged as an additional crisis, resulting in significant disruptions to trade and an alarming increase in the prices of essential commodities such as oil and food. This has had a devastating impact on all countries that rely on these commodities for import and export. Senegal's economic recovery has been severely affected by this crisis, leading to a contraction in growth, a widening of the current account balance and a significant rise in inflation, unemployment and poverty. To make matters worse, the crisis has also increased Senegal's public debt.[9] Mali has experienced a similar trend, with a decline in gold exports, a drop in foreign investment and heightened geopolitical tensions. In the same year, Mali faced a further economic shock due to sanctions imposed by ECOWAS and WAEMU following the military coup of 24 May 2021 and the failure to respect the electoral calendar. These sanctions included the suspension of financial transfers and budgetary support, as well as the closure of land and air borders.[10]

Domestic crisis events

Between 2000 and 2022, Senegal and Mali faced severe domestic crises related to energy, food, climate and security. However, Senegal faced fewer endogenous crises than Mali, which was highly vulnerable to security and climatic-related crises. Senegal's poor management of the national electricity company caused an energy crisis between 2000 and 2002, which led to a deficit in electricity production.[11] This crisis significantly impacted the economy, with the tertiary and industrial sectors experiencing a noticeable slowdown in growth. Around the same time, Mali and Senegal (and other Sahelian countries such as Niger, Burkina Faso and Mauritania) faced a severe crisis caused by drought and a locust invasion. This crisis destroyed food and fodder crops, which had a severe impact on the primary sector, domestic consumption and food security.[12]

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9 The World Bank, 'Senegal Economic Update 2023: Addressing the needs of vulnerable groups for national development,' June 21, 2023.

10 Ornella Moderan, Fahiraman Kone and Fatoumata Maiga, 'Beyond ECOWAS sanctions, how can Mali overcome the crisis?' *ISS Today*, January 25, 2022.

11 Lassana Cissokho and Abdoulaye Seck, 'Electric Power Outages and the Productivity of Small and Medium Enterprises in Senegal,' (ICBE-RF Research Report N0. 77/13, Dakar, November 2013), 34954.pdf (issuelab.org).

12 Oxfam, 'Oxfam prepares for crop devastation as locust swarms continue to multiply in West Africa,' (Relief Web, September 13, 2004).

In this brief, some leading indicators (those that have predictive power for impending crises) are identified. Price and production volatility predicted the energy crisis in Senegal (2000–2002) and the cotton crisis in Mali (2001–2002). Climatic and agricultural changes alerted policymakers to potential droughts and locust invasions (2002–2003) and the food crisis in Mali (2005–2006). Global economic indicators, such as world demand and international trade flows, business financing costs, commodity prices and foreign direct investment, predicted the global financial crisis (2007–2009) and the global food crisis (2007 and 2012). Lastly, energy and food crises have been caused by geopolitical tensions and economic turbulence. Prices are the primary transmission mechanism for shocks to production and trade. Fluctuations in commodity prices, such as food and oil, have a significant negative impact on countries, especially net importers of those commodities.

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Response policies adopted

In responding to shocks, policymakers typically implement fiscal and monetary measures to support the economy. Figures 4 and 5 show the changes in public spending and revenue (including grants and non-grant revenue) for Senegal and Mali between 2000 and 2022.

"In responding to shocks, policymakers typically implement fiscal and monetary measures to support the economy"

During the observed period, public spending in Mali and Senegal increased significantly, and encompassed operating expenditure, social transfers and capital expenditure. However, it is noteworthy that Senegal had higher public spending than Mali. Despite reaching its peak in 2020 due to the COVID-19 pandemic, public spending declined in 2021 as public finances struggled to keep up. Upon closer inspection, it is clear that both countries' public spending exceeded their total revenues, indicating a consistent structural budget deficit and dependence on debt. Since 2000, Mali and Senegal have frequently relied on debt to finance crises. Senegal's debt servicing increased by over 40% in 2008 and

140% in 2011, while the 2011 food crisis caused a 66% increase in debt servicing for Mali.[13] As a result, both countries have adopted an expansionary fiscal policy and diversified their sources of financing, including debt relief under the Heavily Indebted Poor Countries (HIPC) and Debt Service Suspension Initiative (DSSI) initiatives. Despite these efforts, their rate of indebtedness continues to increase due to the cycle of repayment and indebtedness, weakened productive and social capacities, and unfavourable long-term repayment terms from private and bilateral creditors.

Figure 4 Senegal's fiscal trends during crises (CFA billions)

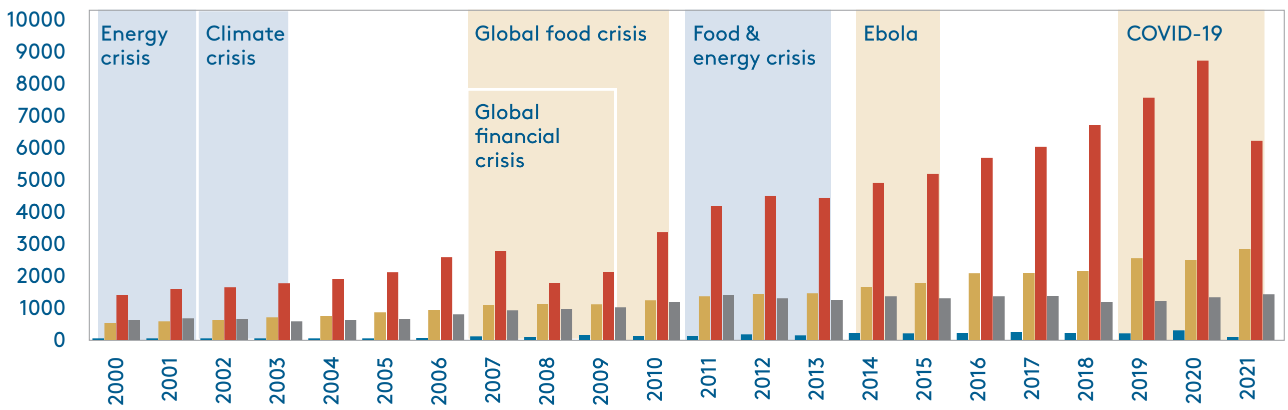
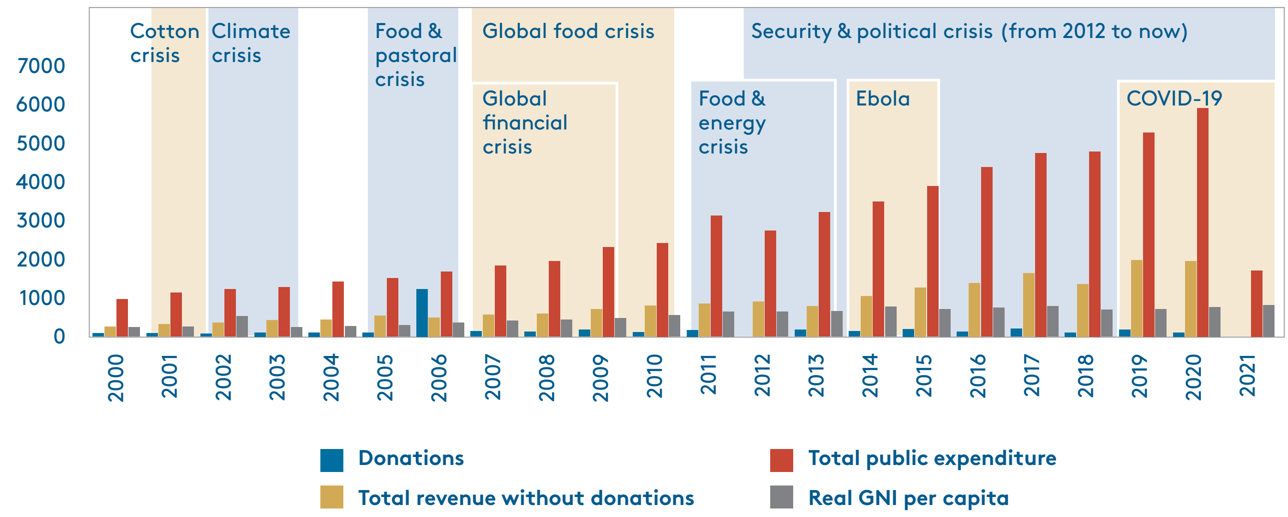


Figure 5 Mali's fiscal trends during crises (CFA billions)



Source: World Development Indicators (World Bank) – Ministry of the Economy and National Statistics Agency, Authors' own elaborations

13 World Bank, 'Total debt service – Senegal, Mali'.

Moreover, external private creditors are proposing new financial products, such as Eurobonds, which are less restrictive but riskier and more expensive.

In contrast, Senegal's performance in terms of non-grant revenue (including tax and non-tax revenue) remained steady over the period, indicating good resilience in the mobilisation of domestic resources. Mali, however, experienced less resilience with a significant drop in tax and non-tax revenue in 2006 (due to the global pastoral and food crisis), 2013 (due to the food crisis and political instability) and 2018 (due to the worsening security crisis). And finally, according to the World Bank,[14] Mali's tax revenues fell in 2022 due to tax expenditures to contain inflation and the effects of ECOWAS sanctions on trade flows, leading to stabilisation of the fiscal deficit at 5.0% of GDP.

The Central Bank of West African States has had to adapt its monetary policies to the national conditions and needs of the countries it serves to minimise the damaging effects of shocks. This has been done while keeping its primary mission of ensuring price stability in mind. Figures 6 and 7 illustrate the evolution of currency movements in Senegal and Mali, where the money supply showed big swings over the period studied. Senegal adopted an expansionary monetary policy during the energy and climate crises in 2002, the financial crisis in 2008, the energy and Ebola crises between 2012 and 2015, and during the COVID-19 pandemic (2019–2021) to support economic activity (Figure 6). However, monetary policy was restrictive in 2003 and 2004 and during several food crises (2007, 2009, 2011) due to inflationary pressures. The Central Bank of West Africa also applied a restrictive monetary policy in response to the Ukrainian crisis, raising key rates to anchor inflation expectations and preserve monetary stability in Senegal and Mali.[15] The monetary approach in Mali was similar, except for a sharp fall in money supply in 2007 before a rise in 2008 and 2009 due to the financial crisis and a fall again in 2009 due to inflation linked to the food crisis. Mali faced a major monetary shock following the 2020 coup d'état and ECOWAS sanctions, leading to the closure of borders and freezing of financial transactions, which required public debt restructuring and emergency aid from the International Monetary Fund.[16]

Despite some challenges, both Senegal and Mali were able to implement crisis response policies that partially mitigated the negative impact of shocks. However, they faced coordination problems, delays in the disbursement of funds, socio-political contestation, and political and security instability, which hampered the distribution of humanitarian aid and provision of public services. Nonetheless, both countries received substantial financial support from international

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14 World Bank in Mali, The World Bank is helping Mali address its economic challenges by focusing on education, health, agriculture and energy, https://www.banquemondiale.org/fr/country/mali/overview, February, 2024.

15 BCEAO, Rapport sur la Politique Monétaire dans l'UMOA, (BCEAO, December 2022), https://www.bceao.int/fr/publications/rapport-sur-la-politique-monetaire-decembre-2022.

16 International Monetary Fund (IMF), IMF Executive Board Extends Immediate Debt Service Relief for Mali for Another Six Months, Press Release No. 20/328, October 30, 2020.

partners, which helped preserve their external solvency (especially during the COVID-19 period).[17] Senegal maintained a positive growth rate of 1.3% in 2020, while Mali limited its recession to -2%.

Figure 6 Money supply trends for Senegal

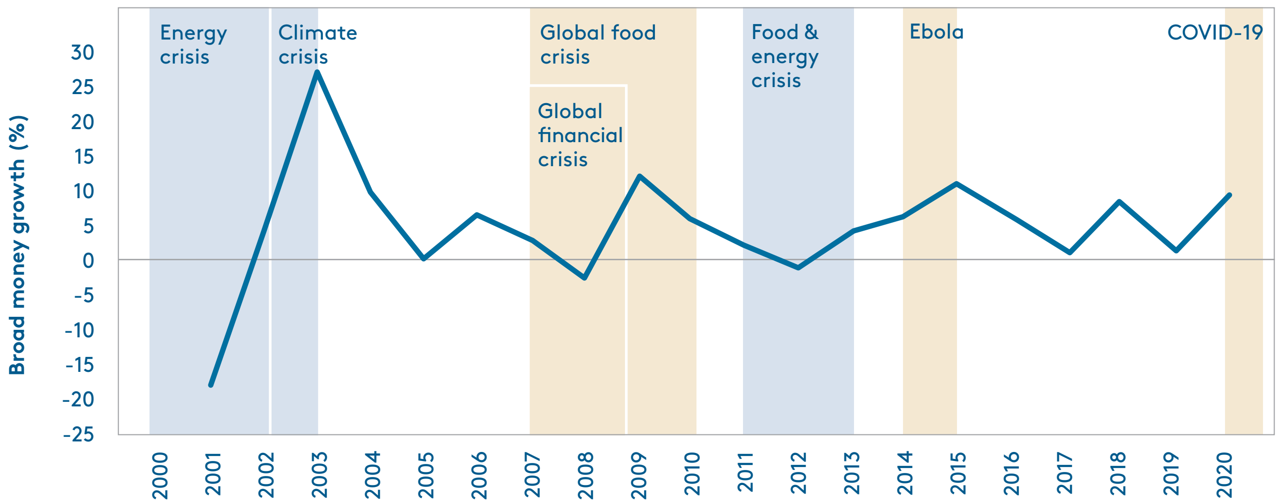
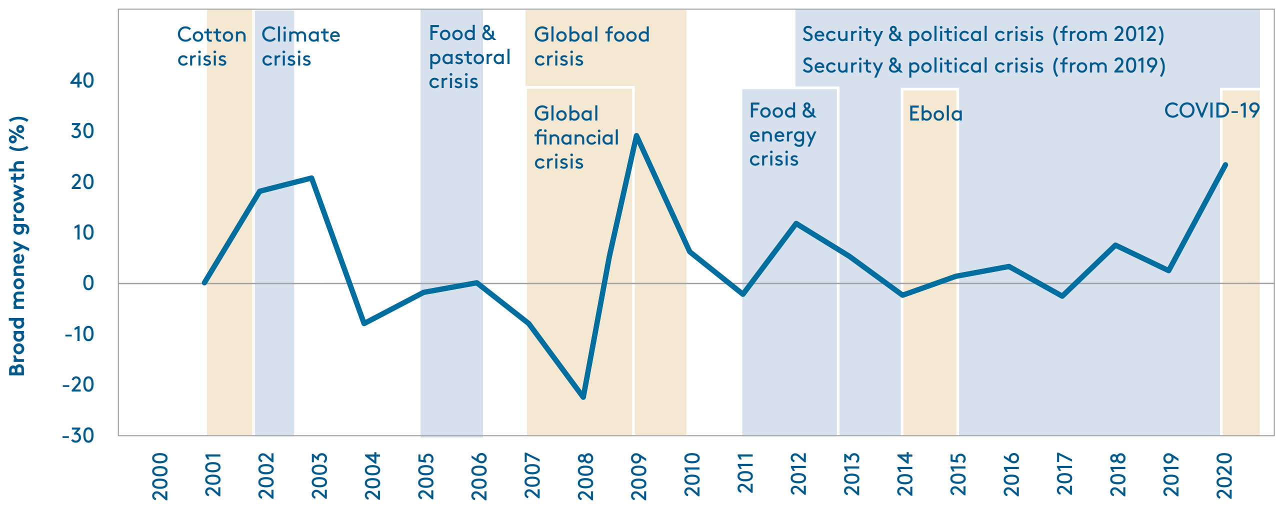


Figure 7 Money supply trends for Mali



Source: World Development Indicators (World Bank) – Ministry of the Economy and National Statistics Agency, Authors' own elaborations

17 For example: in Mali, see the crisis-response budget support (CRBS) initiative, lessons_-_crisis_response_budget_support_operations_en.pdf (afdb.org); in Senegal, see World Bank,' Senegal COVID-19 Response Gets Additional Financial Boost from World Bank,' Press release, June 19, 2020.

Policy proposals for building resilience

Senegal and Mali must act quickly to develop their resilience against future crises. This requires implementing counter-cyclical fiscal and monetary policies and strengthening their trade, industry, human capital and governance performance. Tailoring these policies to each country's unique context, including its strengths and limitations, is essential. Failure to act now could lead to severe economic instability.

"Senegal and Mali must act quickly to develop their resilience against future crises"

Counter-cyclical fiscal measures and monetary counter-cyclical policies

A progressive and fair tax system is essential to collecting revenue efficiently, reducing exemptions and evasion, easing the tax burden on vulnerable households and businesses, reducing inequality, stimulating investment and creating room for financing social and productive expenditure. Indeed, in times of crisis, as is the case in both countries, this tax counter-cyclical policy will stabilise the economy by reducing taxes and increasing spending to relieve businesses and consumers. This measure will also encourage adaptation of expenditure and revenue to fluctuations in the economy. Also, to promote economic stability in times of slowdown, the adoption of a counter-cyclical monetary policy is essential. Such a policy provides access to credit, encourages investment and consumption, and mitigates inflation and overheating during periods of excessive growth. The central bank is responsible for enforcing this policy and ensuring its effectiveness in supporting the economy. It is a crucial measure towards preventing banking crises and safeguarding the interests of savers and borrowers. This may entail imposing prudential standards on banks and other financial intermediaries and monitoring systemic risks to ensure financial stability.

Furthermore, it is necessary to mobilise climate financing through innovative mechanisms. In this sense, political decision makers must also involve local and private actors in the process to address future climate-induced recessions, for example, those caused by droughts and other avoidable natural disasters and the inability to adapt to them.

Structural measures for trade and industry

A structural measure aimed at diversifying foreign exchange and national production is recommended to bolster the strength of trade and industry. This involves reducing dependence on a limited number of products or markets and developing sectors with high added value and employment potential. In addition, promoting regional integration and access to emerging markets, as well as improving product competitiveness and quality, can help increase production and export capacity. By doing so, businesses can reduce their vulnerability to demand or supply shocks on the international market, stimulate economic growth and create wealth while building resilience. For Senegal's intra-regional trade, ECOWAS and WAEMU represented 39.4% and 30.8% of exports respectively. For imports, these two communities represent 13.6% and 4.8% of imports respectively.[18]

Another structural measure for trade and industry is to foster innovation and technological advancement. Firstly, encouraging research and development (research and development spending represents less than 1% of GDP in each of the two countries – 0.58% for Senegal in 2015 [latest available data] and 0.18% for Mali in 2021), according to the World Bank.[19] Supporting strategic sectors such as renewable energies, information and communications technologies or agribusiness, strengthening human and institutional capacities, and facilitating technology transfer are all impactful ways to increase productivity and efficiency, reduce production and transaction costs, improve product added value and promote adaptation to structural change. These actions not only benefit the economy but also contribute to the overall betterment of society.

Structural measures for human capital

A potential method to enhance human capital is to establish social and food security for all individuals by implementing a minimum income grant, offering universal health coverage, providing support for local agriculture and instituting social safety nets. Such measures could help promote overall well-being and stability within society while ensuring that individuals have access to the resources they need to thrive. In Senegal, for example, a Strategic Plan for Universal

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18 Khadidiatou Gassama and Toussaint Houeninvo, 'African Economic Outlook 2018: Senegal', African Development Bank Group, 166,

19 World Bank, 'Research and development expenditure (% of GDP)'.

Health Coverage was launched in 2013, the objective of which was to extend basic health coverage to at least 75% of the population of Senegal by 2017.[20] According to the report from the Ministry of Health and Social Action,[21] published in March 2018, the health risk coverage rate in 2017 was 48.31% for a target set at 76%; that is, a negative gap of 25.7%.

The enhancement of education and training is of utmost importance when it comes to fostering resilience. This encompasses guaranteeing equal access to high-quality education, creating programmes that are in sync with the demands of the labour market, promoting apprenticeships and fortifying technical and professional skills. The Ministry of Education or the relevant authorities are responsible for implementing the education and training policies. Expenditure on education represents 15% and 14% of the national budget of Senegal[22] and Mali[23] respectively, while the health sector finds itself allocating a smaller share with 5.9% in Senegal and 0.77% in Mali.

In summary, investing in human capital, strengthening training and encouraging education in a context of resilience will promote effective changes in behaviour for adaptation to the policies to be implemented, whether in climate, health or even economic action.

> "Investing in human capital, strengthening training and encouraging education in a context of resilience will promote effective changes in behaviour"

Structural measures to improve governance

One practical approach to enhancing governance mechanisms is strengthening the rule of law and democratic institutions. This ensures that human rights are respected, powers are separated and judicial independence is upheld and can be achieved through transparent elections,

20 ABT Associates, 'Senegal HSS: Implementing Universal health Coverage,' October 5, 2015.

21 Ministry of Health and Social Action report of March 2018, relating to 'performance of the universal health coverage program in 2017'.

22 Government of Senegal, 'Budget Par Ministeres,', Senegal HSS: Implementing Universal Health Coverage | Abt Associates.

23 Government of Mali, Ministry of Economics and Finances, 'Conférence de lancement de l'élaboration de la loi de finances 2023', Bienvenue en budget.gouv.ml.

promoting citizen participation and social control. These efforts can build resilience, legitimacy and political stability. Furthermore, such efforts can prevent conflicts and combat corruption. It is the responsibility of the government and parliament to implement these measures.

Improving governance mechanisms by reinforcing regional cooperation and integration is also a vital structural measure. This can be accomplished by aligning social and economic policies with neighbouring nations, adhering to joint commitments and standards, and fostering constructive dialogue for peaceful conflict resolution.

Such measures would create new opportunities for trade and investment, bolster resilience, and allow for the support and solidarity of regional allies. In addition, it would mitigate the risks of political or security destabilisation and promote African integration.

"Create new opportunities for trade and investment, bolster resilience, and allow for the support and solidarity of regional allies"

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The views expressed herein do not necessarily represent those of IDRC or its Board of Governors.

About IPAR

Initiative Prospective Agricole et Rurale (IPAR) is a space for reflection, dialogue and proposals for concerted agricultural and rural policies in Senegal and the West African region. The initiative was prompted by specialists in agriculture and the rural world who were already supporting farmers' organisations and who were interested in creating permanent spaces for prospective and strategic reflection. The staff of the IPAR Executive Secretariat is a multidisciplinary team made up of sociologists, economists and agronomists, supported by the experts of the Scientific Committee and the members of the Board of Directors.

About SAIIA

SAIIA is an independent, non-government think tank whose key strategic objectives are to make effective input into public policy, and to encourage wider and more informed debate on international affairs, with particular emphasis on African issues and concerns.

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