The series supports the MRJ in (i) strengthening fiscal management to improve medium-term fiscal sustainability; and (ii) accelerating the transition towards a low-carbon, climate-resilient, and inclusive urban development. This second DPL in the series, for US$135,238,245, builds on the first by deepening reforms to strengthen fiscal management and accountability and advance the transition toward a low-carbon, climate-resilient, and inclusive urban development in alignment with its Sustainable Development Goals Agenda [2]3

Rio de Janeiro, with a population of 6.7 million, has the second largest economy among municipalities in Brazil, and one of the largest in LAC. [5] Its economy accounts for 4.4 percent of the Brazilian economy, or almost 12 percent if the metropolitan area is considered. It is headquarters to Brazilian oil, mining, and telecommunications companies; an important scientific hub; Brazil·s second largest financial sector (after Sao Paulo); and a key tourist destination Services and industry account for almost 86.5 and 13.5 percent of the municipality·s value added, respectively, in 2020.

The COVID-19 pandemic worsened Rio's public finances, further reducing the municipality's capacity to invest in advancing its environmental, social, and economic objectives, including low-carbon, resilient and inclusive urban development.

In 2020, the crisis reduced services sector activity and increased the city·s unemployment rate to a peak of 16.4 percent in late 2020.

Supported by reforms under this DPL series, Rio·s fiscal balances improved significantly in 2021 and 2022 and arrears were repaid in full.

The program supported by the DPL series focuses on strengthening fiscal management to improve medium-term fiscal sustainability, and accelerating the transition towards a low-carbon, climate-resilient and inclusive urban development.

The first pillar of this DPL seeks to strengthen public management to improve medium-term fiscal sustainability of the MRJ.

After a strong rebound in 2021 and 2022 from the COVID-19 crisis, driven by the vaccination campaign and federal income support to the poor, growth remained solid in early 2023. GDP grew 1.9 percent on a quarter-on-quarter basis in 2023Q1 · the highest quarterly growth since Q4 2020, mainly driven by the strong growth in agriculture. On the demand side, household consumption and government consumption registered 0.2 percent and 0.3 percent growth, respectively, due to the fiscal stimulus and income transfer support, despite monetary tightening and higher families· indebtedness. Investments fell by 3.4 percent, imports decreased 7.1 percent and exports registered a slight fall (0.4 percent), resulting in a positive contribution of net exports to growth (0.9 p.p.).

This was due to a stronger labor market and a major expansion in coverage (48 percent growth in 2022) and average benefits (170 percent growth in 2022) of income transfer programs. Unemployment dropped to 7.9 percent in 2022, a level not seen since 2015. However, as growth slowed, the unemployment rate rose to 8.3 percent in May 2023.

CPI-inflation moderated to 3.2 percent in June 2023 from 12.1 percent in April 2022, falling within the central bank·s inflation target interval (3.25 percent with a +/-1.5 tolerance interval).

Inflation expectations moderated to 4.9 percent for 2023 and 3.9 percent for 2024.

Credit growth slowed due to the lagged effects of monetary tightening and rising bank spreads.

The 12-month current account deficit fell to 2.5 percent of GDP in May 2023 (US$ 48.5 billion) after reaching 3.4 percent of GDP in September 2022. The 12-month net FDI inflows were 2.8 percent of GDP (US$54.7 billion), fully covering the current account deficit.

The external financing needs in 2022 were moderate at 10.6 percent of GDP, 3.4 percentage points below their 2020 peak.

After improvement in 2022, fiscal balances have shown signs of deterioration in 2023 as economic activity slowed, one-off revenues vanished, and social transfers increased. The 12-month primary surplus of the public sector reached 0.4 percent of GDP in May 2023, from 1.3 percent of GDP in 2022.

Consequently, the overall fiscal deficit grew to 6.4 percent of GDP in May 2023 (from 4.6 percent in 2022).

GDP is expected to grow to 2.1 percent in 2023 and 1.3 percent in 2024, and then pick up to 2.4 percent in 2025. Strong growth in 2023 is expected to be supported by high agriculture sector growth, a strong carry-over effect from Q1 2023 (2.4 percent), and strong private consumption growth, supported by a strong labor market and continued income transfers under the Bolsa Família program. The expected deceleration of economic activity in the second semester of 2023 due to the lagged effects of monetary policy will result in a reduced carry-over effect for 2024 and a lower growth for the year. However, as inflationary pressures diminish in 2023 and 2024, the Central Bank is expected to continue gradually ease monetary policy. The easing of monetary policy will accelerate the economic activity in 2024 and 2025, reflecting in a higher GDP growth in 2025. Over the medium-term, baseline growth is assumed to stay at around 1.5 percent, on the back of the historical mild Total Factor Productivity (TFP) growth, lower national savings that limits the investment rate and decreasing population growth. Progress on implementing growth-enhancing structural reforms, including those related to trade openness, market competition, and business environment can help to boost TPF and increase potential growth.

The current account (CA) deficit is projected to reach 3.2 percent of GDP in the medium-term as external conditions adjust and growth returns to its pre-pandemic trend. In 2023, the CA deficit is projected to decrease to 2.4 percent of GDP.

Despite the positive impacts of the global economic recovery on Brazilian exports in 2024, the acceleration of the imports volume aligned with the domestic economic recovery is expected to increase the CA deficit to 3.2 percent of GDP by 2025. However, the deficit is expected to be fully financed by net FDI flows, as intercompany lending will benefit from higher interest rates spreads and equity and investments funds will improve with global market conditions.

Inflationary pressures are expected to ease in 2023 and 2024, encouraging the Central Bank to gradually ease monetary policy in the second semester. Inflation is expected to decelerate to 4.9 percent in 2023 and converge to 3.5 percent by 2025, close to the Central Bank target of 3 percent, aligned to the lagged effects of monetary tightening and stabilization of commodities prices conditions. The Central Bank is expected to gradually ease the monetary policy as inflation declines.

With the new fiscal framework, the Government foresees zeroing the federal primary deficit in 2024, obtaining primary surpluses of 0.5 and 1.0 percent of GDP in 2025 and 2026 respectively, while stabilizing the debt/GDP ratio by 2026. The new fiscal framework will require revenue measures to meet the primary balance targets.

Supported by revenue measures, a decline in interest payments and anchored in the new fiscal framework, the primary deficit is expected to turn into a surplus over the medium term. The projected primary deficit of 0.9 percent of GDP in 2023 for the general government reflects the effects of higher social transfers authorized by Constitutional Amendment 126/2022 for the year and the reduction of revenues due to lower one-off revenues and lower inflation. For the coming year, the primary balance is expected to gradually increase until it achieves a surplus of 1.1 percent of GDP by 2026. The overall fiscal deficit is projected to increase to 7.3 percent in 2023 (from 4.6 percent in 2022) before gradually declining to 3.3 percent of GDP by 2026, in line with lowering interest payments caused by easing monetary policy and lower financing needs.

126 (EC 126), the federal government will finance 1.35 percent of GDP in social transfers (mainly, the Bolsa Família program) and several other expenditures (real increase in the minimum wage, and in programs such as the Farmácia Popular and Merenda Escolar, among others), and 0.25 percent of GDP in public investments.

4 An accumulated deterioration in the primary balance of about 3.1 percentage points of GDP between 2024 and 2025 would increase debt to 83 percent by the end of the decade, 5 percentage points above the base case scenario. This scenario also assumes that every percentage point of GDP of less primary balance increases the interest rate by 0.25 basis points.

5 A drop of 2.9 percentage points in GDP growth between 2024 and 2025, the standard deviation between 2012 and 2022, would lead to a sharp increase in public debt to around 90 percent of GDP by the end of this decade, 13 percentage points higher than the baseline scenario. This scenario also assumes that every percentage point of less economic growth reduces inflation by 0.25 basis points and increased the real interest rate by 0.25 basis points.

Macroeconomic risks are mainly driven by concerns with the pace of fiscal consolidation, low productivity growth and deteriorated external conditions. Compliance with the targets of the proposed design of the new federal fiscal framework will be critical to stabilize debt in the medium term and avoid a loss in market confidence, especially, in an alternative stressed macroeconomic scenario.

The dissipation of the cyclical factors (mainly inflation) that spurred revenue growth in 2021 and 2022 and high debt service costs can raise public financing needs from 2023 onwards.

Productivity growth has been concentrated in primary sectors but has been absent in manufacturing and services.

On the external side, persistent inflationary pressures in advanced economies could keep global interest rates elevated for a longer time and reduce global economic activity, trigger higher investor risks aversion and reducing capital inflows, weaken the Brazilian currency, put additional pressures on domestic inflation, as well as limit investments and exports growth.

Brazil·s macroeconomic framework is characterized by a high government·s cash balance positions, low public debt exposure to exchange rate fluctuations, strong external accounts, strong financial sector regulations that supports a solid financial system, a consolidated inflation target system based on an independent Central Bank and a flexible exchange rate regime that is able to anchor inflation expectations, and a new fiscal framework that is expected to contribute to stabilize debt over the medium-term. Two tax reforms under discussion (one focusing on indirect taxes replaced by a simple VAT and the other on income taxation) will probably advance through 2023 and 2024, making taxation more progressive, diminishing the heavy tax burden on the poorest population, while improving business environment and productivity prospects through tax simplification. The recently approved financial sector reforms helped to boost competition in the financial markets, financial inclusion, and market access The labor market reform enacted in 2017 and recent reforms approved in 2020 and 2021 have supported market entry and private sector participation in key infrastructure sectors (water and sanitation, telecom, and energy).

The Central Bank has offered swap contracts to the market to reduce the floating exchange rate volatility and to provide liquidity to the financial market when the Real is under pressure, preventing the Central Bank from losing reserves and keeping them at high levels (17.5 percent of GDP). Brazil recently concluded a Free Trade Agreement (FTA) with the EU and with the European Free Trade Association (EFTA) countries as part of the Mercosur regional trade block (both pending ratifications by countries· legislative houses in EU and Mercosur), which could increase competition and productivity.

This spending ceiling will be in effect for 20 years and, as long as nominal GDP growth exceeds consumer price inflation, the federal primary expenditure will decline as a share of GDP in the medium term.

The vaccination campaign contributed to recovery in the service sector in 2021, and the city·s economy recovered by 5.4 percent in 2021.[18] However, the local economy growth has been stagnant since 2017 and Rio·s economic activity was about 12 percent below the peak of 2014 in March 2023.

The improvement of labor markets in 2022 coupled with the increase of social transfers supported the recovery of the most vulnerable population·s income over pre-pandemic levels.

At the same time, inequality may have decreased as the bottom 40 percent of the income distribution experienced higher real income growth than the average household (19 percent and 5 percent, respectively), attributed to employment recovery after the COVID-19 crisis and the expansion of the federal social transfers program to the poor that also reached long-standing vulnerable demographic groups such as Afro-descendant women.[19]

The municipal government committed to join the PEF, a federal program that supports Subnational Governments in strengthening fiscal sustainability through the implementation of rascal reforms and achievement of fiscal targets agreed with the Federal Treasury.

Most of fiscal measures implemented in 2021 have medium-term fiscal effects and will continue to benefit the municipal·s fiscal consolidation between 2023 and 2026, as showed in the Bank·s fiscal projections for this period (see Table 5) and will support the maintenance of the creditworthiness rating at the B level during this period.

The main economic and fiscal risks to the municipality come from the Brazil-level macro. A slowdown in the services sector can impact the municipality·s revenues (mainly ISS and IPTU), worsen Rio·s fiscal balances and constrain its ability to continue the fiscal consolidation path.

Incentives to comply with the Fiscal Equilibrium Plan can help to contain the fiscal deficit and increase the fiscal space to ramp-up social, climate and infrastructure investments.

Under these assumptions, MRJ is expected to sustain solid fiscal balances and maintain its current CAPAG·s B rating until 2026.

The Bank and the IMF has been closely collaborating with the federal government in the last years, including on public financial management, public investment management, and a Financial Sector Assessment Program The IMF has also provided technical assistance to Brazilian authorities in other areas, such as fiscal transparency and fiscal frameworks for subnational governments (see Annex 2 on IMF Relations); while the Bank prepared the Public Expenditure Review[22], the intergovernmental fiscal transfers

22 World Bank (2017), A Fair Adjustment: Efficiency and Equity of Public Spending in Brazil, Report N. 121480, pp.

The municipality·s 2021-2024 Government Strategic Plan (PE) and the 2022-2025 medium-term plan (PPA),[27] aim to improve quality of life, while promoting sustainable development and fiscal responsibility.

Initiatives and targets are divided into six cross-cutting themes: (i) longevity, well-being and connected territory; (ii) equality and equity; (iii) economic development, competitiveness, and innovation; (iv) climate change and resilience; (v) cooperation and peace; and (vi) governance.

The Development Objective of this DPL series is to support the MRJ in: (i) strengthening fiscal management to improve medium-term fiscal sustainability and (ii) accelerating the transition towards a low-carbon, resilient and inclusive urban development.

In addition, Pilar 1 is also aligned to the areas of Economic Development, Competitiveness and Innovation, and Climate Change and Resilience, through the promotion of the carbon market in the city.

PRIOR ACTIONS, RESULTS AND ANALYTICAL UNDERPINN

Pillar I: Strengthening fiscal management to improve medium-term fiscal sustainability

32.

The municipality has faced challenges in ensuring accurate and reliable financial reporting, which has implications for transparency, accountability, and fiscal sustainability. By reducing administrative costs and improving operational efficiency, fiscal consolidation can be achieved without compromising the quality of public services.

To improve its fiscal accountability and increase the transparency, effectiveness, and efficiency of its policies and programs, the Borrower has adopted the IA-CM to strengthen the internal audit capacities of the CGM.

1 The Fiscal Equilibrium Plan (PEF) was established in 2021 to support the fiscal consolidation of states and municipalities (SNGs) which are in fiscal distress but that are not highly indebted.

To improve its fiscal accountability and increase the transparency, effectiveness, and efficiency of its policies and programs, the Borrower has adopted the IA-CM to strengthen the internal audit capacities of the CGM.

These challenges made pension reform a priority for the municipality in pursuit of a more sustainable fiscal outlook.

After the end of those measures, ridership partially rebounded to 85 percent of pre-pandemic levels.

[77] C40 Cities Climate Leadership Group comprises 96 cities around the world, representing a quarter of the global economy, focused on fighting the climate crisis and driving urban action that reduces greenhouse gas emissions and climate risks, while increasing the health, wellbeing and economic opportunities of urban residents.

The main premise of the CPF was the need to revisit the country·s growth model to improve its sustainability and inclusiveness The CPF is built on three Focus Areas: (i) fiscal consolidation and government effectiveness; (ii private sector investment and productivity; and (iii) equitable and sustainable development.

The Mato Grosso DPL aimed to support the State to implement institutional reforms for fiscal sustainability; and consolidate efforts to protect forest assets while promoting agricultural productivity in line with the State·s development strategy.

The Goiás DPL aimed to support the state in improving fiscal sustainability and adopting climate-smart, resilient, and inclusive policies for its agricultural sector.

Representatives of the STN and the World Bank team discussed the development of the program under pillar 1, the modeling of its fiscal impact and the relevance of the Municipality· adherence to Fiscal equilibrium plan to support the city·s fiscal consolidation.

Prior actions in the first pillar are expected to improve the municipality·s Public Management system, therefore improving the efficiency of spending, while creating fiscal space for improved provision of public services and investments in a green urban development.

These three Prior Actions combined are expected to bring benefits for the low-income population who: a) face more restrictions in their mobility and access to both economic opportunities and basic public services in the city; b) are more dependent on public transportation for their mobility c) have limited options of public transportation and d) devote a significant part of their daily hours commuting between home and work.

Certain limitations persist in the system concerning public sector investment management and the provisions for investments and recurrent costs.

Once the loan is effective and against satisfactory implementation of the program (specified prior actions achieved) and maintenance of an adequate macroeconomic policy framework, the borrower will request the World Bank to disburse [illegible]2 in local currency, the equivalent amount of the loan proceeds into a local currency denominated bank account opened by the Municipal Government at the Banco do Brasil branch in Rio de Janeiro.

In this context, the continuity of actions and goals established in the second stage of the Rio de Janeiro Fiscal Management and Development Project will amplify the pursued success regarding the balance of public accounts, the increase in investment and savings capacity, combined with prosperous and sustainable environmental management.

The COVID-19 pandemic further affected Rio's public finances, exacerbating the municipality's ability to promote investments in line with its environmental, social, and economic objectives, including low-carbon, resilient, and inclusive urban development.

The loss of jobs and production directly impacted tax revenue, with a particular emphasis on the ISS (Municipal Service Tax), the main municipal tax.

Given the fiscal, economic, and health crisis in which the Municipality of Rio de Janeiro found itself, the current administration, which began in 2021, initiated a fiscal adjustment program that aimed to provide solutions that would address society's demands regarding job creation, attracting investments, improving social indicators, and promoting investments in line with its environmental objectives.

In this context, the Fiscal Equilibrium Promotion Plan and the Programmatic DPF complement and reinforce each other to provide sustainability to the recovery and development of MRJ.

This law provides fiscal incentives to taxpayers and business activities related to the carbon credit market, aiming to drive investments in mitigating the effects of climate change and fostering a green economy.

This operation, in conjunction with the Fiscal Equilibrium Promotion Plan, will continue to contribute to the construction of a path towards rebalancing the municipal public accounts and accelerating the transition to a low-carbon, climate-resilient, and inclusive urban development.

It is our commitment to implement complementary policy measures for fiscal sustainability and city transformation, focused on low-carbon and more inclusive urban development through sustainable mobility and strategies for mitigating and adapting to climate change impacts.

To improve its fiscal accountability and increase the transparency, effectiveness, and efficiency of its policies and programs, the Borrower has adopted the IA-CM to strengthen the internal audit capacities of the CGM.

This action could thus improve the mobility of low-income population and consequently allow them to reach jobs and basic public services (schools, hospitals, other health facilities, etc.)

Indeed, simulations suggest that halving road crash deaths and injuries could generate additional flows of income, with increases in GDP per capita over 24 years as large as 7.1 percent in Tanzania, 7.2 percent in the Philippines, 14 percent in India, 15 percent in China, and 22.2 percent in Thailand.[100] Therefore, the road, walking and cycling safety improvements and the expanded use of bicycle lanes supported under this Prior Action are expected to save lives, reduce the severity of crash injuries and bring substantial economic benefits · of which, as suggested by analysis in other Latin American cities suggest, health benefits would account for 60 percent.

Identifying and Quantifying the Economic Benefits of Bicycle Lanes.

ANNEX 5: PARIS ALIGNMENT ASSESSMENT TAB

Program Development Objective(s): To support the Municipality of Rio de Janeiro in: (i) strengthening fiscal management to improve medium-term fiscal sustainability; and (ii) accelerating the transition towards a low-carbon, resilient and inclusive urban development.

To improve its fiscal accountability and increase the transparency, effectiveness, and efficiency of its policies and programs, the Borrower has adopted the IA-CM to strengthen the internal audit capacities of the CGM.

Adaptation and resilience goals: assessing and managing the risks

Prior Action 1 To improve its fiscal accountability and increase the transparency, effectiveness, and efficiency of its policies and programs, the Borrower has adopted the IA-CM to strengthen the internal audit capacities of the CGM.

The recent subnational fiscal crisis made it evident that the LRF and State-federal fiscal adjustmen programs (PAFs) need strengthening.

The government proposed a new fiscal framework that combines a spending rule with a primary balance rule to stabilize debt in the medium-term.

On the other hand, real expenditure growth would be limited to 2.5 percent in a revenue boom and any additional revenue would improve the primary result or directed towards public investments.

One of the main concerns regarding the new fiscal framework is the implicit required revenue increase to meet the primary balance targets.

These three high profile reforms are critical for reinforcing fiscal credibility and improving the business environment. Their prospects are boosted by the Brazilian congress· strong demand for an adequate fiscal anchor and the appointment of Bernard Appy · the main author of one the tax reform proposals currently in congress - as a Special Secretary for Tax Reform. These reforms are expected to make taxation more progressive while improving the business environment and productivity prospects through tax simplification.

According to the Extraordinary Secretary for the Tax Reform, studies show that the GDP could grow from 12 to 20 percent in 15 years after the approval of the VAT tax reform, through gains in productivity.

The Minister of Finance announced on April 20, 2023, a set of measures to stimulate investments in infrastructure and improve the country's credit and insurance markets. The Government expects to expand access to credit, capital and insurance markets and stimulate investments in the infrastructure sector, by providing more legal and financial stability and reducing transaction costs and inefficiencies that hold back Brazil·s long-term economic growth.

The current administration·s commitments to climate action and to protect the Amazon open a new window of opportunity for the European Union (EU) and Mercosur trade deal to increase competition and productivity. Brazil has a relatively closed trade regime (trade was 39 percent of GDP in 2021, compared to an average of 55 percent for the LAC region).

The EU-Mercosur trade agreement would increase Brazil·s global integration and boost competition in domestic markets.