

Rating Report

Autonomous Community of Madrid

DBRS Morningstar

15 December 2023

Rating Considerations Strengths

- 1 Large and very diversified economy
- 2 Strong fiscal position
- 3 Sound debt structure and continued access to financial markets
- 4 Strengthened liquidity profile

Challenges

- Inflationary pressures and higher interest rates and their economic and fiscal impacts
- 2 Still high debt-to-operating revenues ratio

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Ratings				
Issuer	Debt Rated	Rating	Trend	
Autonomous Community of Madrid	Long-Term Issuer Rating	А	Stable	
Autonomous Community of Madrid	Short-Term Issuer Rating	R-1 (low)	Stable	

Summary Rating Rationale

On 15 December 2023, DBRS Ratings GmbH (DBRS Morningstar) confirmed the Long-Term Issuer Rating of the Autonomous Community of Madrid (Madrid) at "A". At the same time, DBRS Morningstar confirmed Madrid's Short-Term Issuer Rating at R-1 (low). The trend on all ratings is Stable.

Madrid's credit ratings are underpinned by (1) the region's large and diversified economy; (2) its strong fiscal results since 2018, which DBRS Morningstar expects to continue; (3) its sound debt structure and continued access to financial markets and (4) its strengthened liquidity profile. Despite the uncertainties related to remaining inflationary pressures, DBRS Morningstar anticipates that the region's strong management will be able to control the growth of expenditure and contain debt accumulation even if the economic prospects would be more limited than previously anticipated.

The Stable trends reflect DBRS Morningstar's assessment that the risks to Madrid's credit ratings are currently balanced. Although remaining inflationary pressures and higher interest rates weigh on the economic outlook, the region's strong economic fundamentals and tax base, its fiscal flexibility, and strong financial management offset these challenges. Despite a deterioration of its fiscal performance in 2022, DBRS Morningstar takes the view that the region will bring back its deficit to a moderate level in 2023 and possibly reach budget balance in 2024. In addition, DBRS Morningstar views positively the potential return of the Budget Stability Law (BSL), possibly in 2024, which should further encourage the region to maintain a balanced budget.

Summary Statistics

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	2018	2019	2020	2021	2022
GDP (EUR millions) ¹	231,423	242,093	218,468	234,639	261,768
Real GDP growth ¹	2.7%	3.1%	-11.0%	5.4%	6.2%
Unemployment rate	12.2%	10.6%	12.5%	11.6%	11.2%
Adjusted debt-to-GDP ²	15.2%	14.6%	16.6%	15.3%	14.1%
Adjusted debt-to-operating revenue ²	198.5%	186.2%	160.5%	156.4%	175.6%
Financing surplus/(deficit)-to-GDP	-0.25%	-0.26%	-0.02%	0.28%	-0.71%

²⁰²² GDP figures are estimations

Source: Autonomous Community of Madrid, Instituto Nacional de Estadística, Ministerio de Hacienda y Función Pública, DBRS Morningstar

² Figures have been adjusted by DBRS Morningstar. For more information, please see the Rating European Sub-Sovereign Governments methodology.

Credit Rating Drivers

The credit ratings could be upgraded if both the region maintains strong financial fundamentals, and the Kingdom of Spain's credit ratings are upgraded. Madrid does not have the constitutional protection to be rated above the sovereign credit rating and its credit ratings are therefore capped by the Kingdom of Spain's credit ratings.

The credit ratings could be downgraded if any or a combination of the following occur: (1) there is a structural reversal in the region's fiscal consolidation, leading operating deficits to widen over time; (2) there is a marked and lasting deterioration in Madrid's debt metrics, including wider and costlier annual maturities and higher leverage; or (3) the Kingdom of Spain's credit ratings are downgraded.

Summary Credit Rating Rationale (continued)

In 2022, the budgetary performance deteriorated with a financing deficit of 0.7% of GDP under national accounting standards according to the National Independent Authority for Fiscal Responsibility (AIREF), versus a surplus of 0.3% of GDP in 2021. The deterioration stemmed from lower revenues, and resulted in the region widening its operating deficit to EUR 0.3 billion in 2022 from an operating surplus of EUR 1.3 billion in 2021. The capital expenditure net of capital revenues was EUR 0.4 billion in 2022, widening the financing deficit to EUR 0.7 billion from a financing surplus of EUR 0.8 billion in 2021.

Up to the end of October 2023, Madrid's operating revenues grew by 10% over the same period in 2022 and were above the 2021 level which was the record high mainly because it benefited that year from extraordinary state funding to alleviate the impacts of the pandemic. The region, which usually is very prudent on its forecasts, expects to finish 2023 with 8% revenues growth, which is a very strong performance given that in 2023 there are no exceptional revenues other than the European funds such as Mecanismo de Recuperación y Resiliencia (MRR) at EUR 668 million and REACT-EU at EUR 237 million. This favorable trend is expected to continue in 2024 as the regional financing system should settle the difference between the actual tax collection and the operating transfers received by the region in 2022. In 2022, inflation started to accelerate and the operating transfers granted to the Region were not adjusted, hence the expectation is for the settlement of the regional financing system to be significantly positive in 2024.

DBRS Morningstar takes the view that some exceptional factors affected the 2022 fiscal performance but that structurally the budgetary performance has not deteriorated. Additionally, the likely return of full capabilities of the BSL from 2024 would further strengthen the fiscal management after the lifting of the general escape clause at the European Union (EU) level. AIREF has worsened its deficit expectations for Madrid this year to a deficit of 0.4% of GDP from a 0.1% deficit in their previous report and it is above the reference deficit target set by the central government at 0.3%. The deterioration can be explained by higher expenditure stemming from the civil servants' wage rise (imposed by the central government) and lower-than-expected housing taxes given the lower real estate activity. However, Madrid's budget should support a fiscal improvement in 2024 given that the budget is balanced; and AIREF also expects Madrid to reach a balanced budget while for the regional sector the expectation is a 0.2% of GDP surplus. Nevertheless, Madrid's budget may allow for higher deficit if the central government reviews the deficit target.

DBRS Morningstar views positively the fiscal improvement recorded by the region in recent years, but continues to take the view that maintaining this strong performance will remain challenging. Under this scenario, strong financial governance will be key to maintain a balanced budget and the likely reimplementation of the budget stability norms by the central government from 2024 should also contribute to fiscal sustainability.

For 2022, Madrid's real GDP grew by 6.2%, better than Spain's growth rate of 5.8%. After two years of strong growth following the recovery of the crisis triggered by the pandemic, AIREF expects for 2023 a more modest growth rate at 2.7%. However, this performance is consistent with what the region grew before it entered the crisis triggered by the pandemic, when it recorded an annual average real GDP growth of 3.5% between 2015 and 2019, above Spain's average of 2.8%. The regional economy is expected to continue growing broadly in line with the national average. DBRS Morningstar expects a continuation of strong tourism performance and robust job market performance to support Spain's GDP in 2023, but increasing financing costs and weaker global economic conditions are likely to somewhat weigh on growth in 2024.

The European Commission (EC) revised its growth projections for Spain upwards to 2.4% in 2023 and downwards in 2024 to 1.7% growth, in its Autumn 2023 economic forecast, from 2.2% for 2023, and 1.9% for 2024 at Summer. The downside risks relate to the prolonged impact on demand of the tightening financial conditions ,notably due to elevated external public and private debt. Although the increase in households purchasing power combined with the liquidity accumulated over the last years could partly mitigate the headwinds on consumption and investment.

The financial resources expected from the NGEU, including the Recovery and Resilience Facility (RRF) and REACT-EU funds, should continue to support reforms and investments. The region estimates that revenues related to these EU funds amounted to around EUR 1 billion in 2022 and EUR 0.9 billion was already utilised. Going forward, the impact of inflation on consumption and investment as well as the speed of absorption of EU funds will remain key areas of focus for DBRS Morningstar to assess the strength of the recovery within the region. Additionally, Madrid is the largest recipient of foreign investment funds with almost 50% of the national's and this should positively influence the prospects of the regional economy.

DBRS Morningstar continues to foresee Madrid's debt sustainability position as strong. With a debt ratio of 14.1% of regional GDP at end of 2022, the region's debt remains substantially below the average for Spanish regions of 23.9%. AIREF expects the debt ratio to decrease to 13% in 2023 on its Report of budget results, public debt and expenditure benchmark of 2023 (July 2023). Moreover in 2024 it should keep decreasing to 12% according to AIREF and the decreasing trend is expected to be maintained over the medium term.

Moreover, the debt of Madrid could potentially decrease further in the medium term as a consequence of the recent political agreement between the centre-left Partido Socialista Obrero Español (PSOE) and the pro-independence Catalan party Esquerra Republicana de Catalunya (ERC) in order to gain enough support on the central government formation, which included reference to a debt relief that is expected to be extended to all the autonomous communities except for Basque Country and Navarre. Few details on the form, date and magnitude of these commitments is made

available. Despite the uncertainty, DBRS Morningstar understands that it is likely that the central government would take over part of the debt accumulated by the autonomous communities since 2012 and considers that such a mechanism would likely improve the financial metrics of the regions, although the magnitude of this improvement is likely to vary from one region to the other. Regarding Madrid, given that it is already rated at the same level as the sovereign, we do not expect direct credit rating implications from a potential debt-relief mechanism.

Unlike most of its national peers, the region has maintained consistent access to the financial markets since the financial crisis. As a result, at the end of 2022, Madrid's bond issuances represented 58% of its debt stock or EUR 20.2 billion (Banco de España data), and 45% of the total bonds outstanding for all Spanish regions. Additionally, the region is very committed to maintain part of their funding needs covered by sustainable and green bond schemes, with the latest sustainable issuance in February 2023 for an amount of EUR 1 billion and the latest green issuance in June of 2023 for an amount of EUR 600 million. The sustainable bond schemes are issued to fund a combination of projects related with the social development or with environmental benefits, while the green bonds follow specifically the green bond principles. The use of these funding enhance the diversification and secures Madrid ability to tap the markets.

Madrid has historically recorded a relatively low cash position, reflecting the region's efforts to maintain a cost-efficient liquidity profile. However, DBRS Morningstar takes the view that the set-up and successful launch of a Pagarés (commercial paper) programme in 2020 by Madrid, and the extension in 2022 of the size of the credit lines available to the region to EUR 1.8 billion, summing up to EUR 2.8 billion the region's liquidity toolkit, have overall strengthened its liquidity profile. The CP program also allows the region to minimize its interest cost, as it was able to issue CPs at negative interest rates in recent years and currently is an alternative for the use of credit lines depending on their cost. Going forward, DBRS Morningstar will continue to monitor the use of those liquidity instruments to assess their impact, if any, on the region's liquidity profile.

Institutional Framework

DBRS Morningstar takes the view that the budgetary principles and procedures applicable to Spanish sub-sovereign governments contribute to their financial sustainability. The budgetary framework is defined by the 2012 Ley Orgánica de Estabilidad Presupuestaria y Sostenibilidad Financiera (Budget Stability Law or BSL) that sets targets in terms of fiscal performance, debt and expenditure levels for all government tiers.

The autonomous communities (ACs) are obligated to deliver every month their budget execution to the central government for monitoring and to check their compliance with the aforementioned targets. This information needs to be supported with sufficient details to allow for accounting adjustments in order to make it comparable with SEC10 or national accounting. Periodically information on the government-related entities of the region needs also to be provided. Additionally, and to comply with European regulation requirements, all public entities should submit before the1st of October a report on the fundamental lines of their budgets to the Ministry of Finance. Also, according to the article 6 of the law HAP/2082/2014, every year before the 15th of March the regions have to provide the central government with their medium term budget plan within which the annual budget is built (including the contingent debt, guarantees or any other

financial commitment that may affect budget execution and the measures considered in budget balance plans).

According to the Spanish constitution under its article 148, the ACs share regulatory powers with the central government on education and healthcare, which are the main responsibilities and represent around two-thirds of total spending excluding debt repayments. In addition, the ACs exclusively control responsibilities related to housing, territorial and urban planning, railways and regional roads, ports and airports, agriculture and livestock, mountains and forest uses, environment, construction and exploitation of hydraulic uses, fishing, hunting, fairs, regional economic promotion, monument heritage, culture and research, social assistance and tourism.

ACs are entrusted with the healthcare service provision but without control over the extent of the portfolio of services they need to provide. The Ministry of Health determines the compulsory portfolio of services for the public and the ACs provide corresponding treatments. This is considered the minimum public service and ACs could increase further the service including hospitals, primary care and pharmaceutical products. Furthermore, the price of medicines is defined by the central government, except for the services that the ACs have decided to strengthen. Regarding the education expenditure, the setup is similar, the central government fixes a minimum service to be provided that could be strengthened at the autonomous community level. All potential new programmes or university degrees need the approval of the central government.

There is an additional constraint for the ACs budget management consisting in the civil servants' wages as the healthcare and education expenditure rely largely on the personnel expenditure, which is decided at central government level but funded by ACs. The central government has single responsibility for foreign affairs, borders and related taxes, defense, monetary system, justice, tax, general economic planning, public administration and public safety.

The transfers received from the central government to fund all these responsibilities relies on the regional funding system. The system has a vertical tax-sharing system with the government by which the ACs should fund their expenditure from the 50% of VAT and PIT collected at the national level, 58% of special taxes and fees and fines, coupled with central government transfers for capital investments and coming from equalization funds. However, all the tax sources of funding and equalization funds are being collected by the central government and then transferred to the ACs. Provided the lag between recognition, collection and distribution of these funds, the central government has established a funding system based on expectations of tax collection evolution.

The central government estimates tax collection and communicates to the autonomous communities in advance the level of operational transfers that they will transfer to them. Two years later and based on the actual tax collection, the central government pays or receives the difference with the estimation, which usually results in further funds for the regions provided the prudence applied to the estimation. In that respect, the current regional funding system is somewhat protecting autonomous communities from a sudden economic downturn given the two-year lag for the full transmission of market signals --namely, tax revenue growth or decrease-- from the central government, which collects most of these taxes for the regions. Nevertheless, if this system positively supports regions' finances in the first year of a crisis (e.g., in 2020 during the coronavirus

pandemic), it also tends to postpone negative financial adjustments to subsequent years, thereby delaying any rebound in regions' financial performance.

The central government unilaterally set the fiscal targets through the BSL but in order to align these targets with the regions created the Fiscal and Financial Policy Counsel composed of representatives of the central government (Ministry of Finance) and regional governments who meet, at minimum, twice a year. This council was set to discuss the region's budget policy, agree on changes, compensation funds if any, and specific funding needs, and coordinate debt policy, public investments policy and any other aspect relevant to the financial relationship between the regions and the central government. The financial performance of Madrid is underpinned by the BSL, created in 2012, which has led Spanish regions to narrow their deficits and, in some cases, to record a budget surplus in recent years (please see Spanish Autonomous Communities' Creditworthiness Supported by Budget Stability Law

https://www.dbrsmorningstar.com/research/413892).

The Spanish government has shown a firm commitment to support the financial viability of all the autonomous communities when unexpected economically unfavorable events have materially impacted tax revenues. The main element of this support is exemplified by the importance of the State funding mechanisms available at the request of ACs (please see: Spanish Autonomous Communities' Access to State Funding Mechanisms Reduces Interest and Refinancing Risks, https://www.dbrsmorningstar.com/research/412232). Additionally, the central government has a good track record providing additional support to regions in financial distress periods, such as the 15 years financing of the negative tax settlement resulting from the 2008 financial crisis. Moreover, the negative tax settlement for 2020 was also offset by the Spanish government and throughout the COVID-19 pandemic, the national government has granted significant additional transfers to regional governments to support their financial position. Also in November 2023, there was a political agreement between the PSOE and the pro-independence Catalan party ERC to gain support on the central government formation, which committed to a region's debt relief in the medium term but it still needs to be formalized by law.

Governance and Fiscal Management

In terms of overall governance, DBRS Morningstar views positively the region's strong transparency and high level of overall financial disclosure as well as the budgetary monitoring implemented by the region. Following the May regional elections, DBRS Morningstar takes the view that the reelection of the President Isabel Diaz Ayuso in May 2023 should support policy continuity, including fiscal strategy (please see: Madrid: Local and Regional Elections Point to Policy Continuity Re-Election of Madrid's Regional President and City Mayor,

https://www.dbrsmorningstar.com/research/414624).

DBRS Morningstar points out that the region's budgetary process and forecasting ability is impacted by the current regional financing system, given that positive or negative settlements only occur after a two-year lag. This can challenge the ability of the regions to build budgets on limited knowledge of resources available in a budgeted year if the central government takes time to communicate the upfront transfers, or if they revise them after the region has already approved its budget. However Madrid keeps working on improving their forecasting ability and control. Madrid

has started building a projection of expenditure in volume until 2029 which is intended to control the operating expenditure at medium term coupled with identifying capital investment needs in the same period. This medium term budgeting exercise is combined with a series of specific objectives and metrics that allows to follow up on the different sectorial strategies' programs applied in the region's departments. The medium term planning is compatible with the existing monthly standard monitoring procedure installed at the region's administration which includes both budget execution monitoring and annual result expectation. If there is a material deviation identified, there is a specific department of the administration that takes the management over the specific project causing the deviation, and that is specialized on stressed finances.

The debt authorisation mechanisms included in the Financial Prudential law, while positive from an oversight perspective, could potentially add some liquidity strains to the region as per the thin spread permitted over Spain's bond premium. However, this has still not played a crucial role for Madrid. Madrid is also a net contributor to the current regional financing system equalization funds, and in the past, Madrid and other regions have advocated for a reform of the financing system. DBRS Morningstar currently expects discussions on the regional financing system reform to take place in the next Fiscal and Financial Policy Counsel given the political commitment from the coalition government at the central government formed by PSOE and Sumar parties. However, an agreement may take time to be reached since the autonomous communities and the government has shown differences in what aspects and which extent should the system be reformed. In 2017 the central government published a paper on this topic and the document focuses on the possibility to ensure that the distribution of funds is equally allocated among regions whilst the level of funding and responsibilities should remain. DBRS Morningstar takes the view that this paper and the discussions among the government tiers should contribute to the stability of the institutional framework.

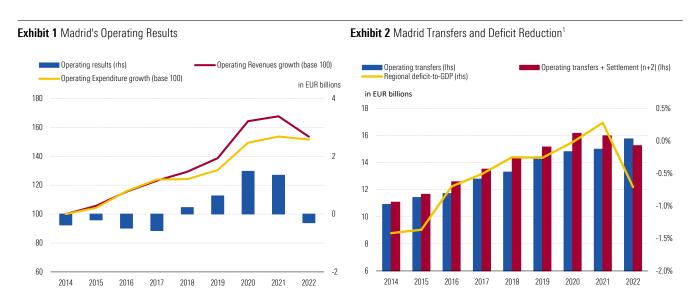
Although DBRS Morningstar is confident of Madrid meeting its financing requirements at affordable costs given its strong track record and ultimately the backstop financing support available from the national government, it will continue to monitor the region's liquidity profile to assess for any credit implications. Despite some tax cuts implemented by the regional government, DBRS Morningstar expects that Madrid's government will remain committed to the fiscal consolidation path it has recorded in recent years.

Financial Performance

In 2022, the budgetary performance deteriorated with a financing deficit of 0.7% of GDP under national accounting standards according to the National Independent Authority for Fiscal Responsibility (AIReF), versus a surplus of 0.3% of GDP in 2021 (exhibit 2). The deterioration stemmed from lower revenues, and resulted in the region widening its operating deficit to EUR 0.3 billion in 2022 from an operating surplus of EUR 1.3 billion in 2021 (exhibit 1). The capital expenditure net of capital revenues was EUR 0.4 billion in 2022, widening the financing deficit to EUR 0.7 billion from a financing surplus of EUR 0.8 billion in 2021.

DBRS Morningstar takes the view that some exceptional factors affected the 2022 fiscal performance but that structurally the budgetary performance has not deteriorated. Additionally, the likely return of full capabilities of the BSL from 2024 would further strengthen the fiscal

management after the lifting of the general escape clause at the European Union (EU) level. AIREF has worsened its deficit expectations for Madrid this year to a deficit of 0.4% of GDP from a 0.1% deficit in their previous report and it is above the reference deficit target set by the central government at 0.3%. The deterioration can be explained by higher expenditure stemming from the civil servants' wage rise (imposed by the central government) and lower-than-expected housing taxes given the lower real estate activity. However, Madrid's budget should support a fiscal improvement in 2024 given that the budget is balanced; and AIREF also expects Madrid to reach a balanced budget while for the regional sector the expectation is a 0.2% of GDP surplus. Nevertheless, Madrid's budget may allow for higher deficit if the central government reviews the deficit target.



Source: Autonomous Community of Madrid, Ministerio de Hacienda y Función Pública, DBRS Morningstar.

1. Operating transfers include "entregas a cuenta" for year N and Operating transfers + Settlement (n+2) include as well the positive or negative settlement of the financing system for the year N-2.

Up to the end of October 2023, Madrid's operating revenues grew by 10% over the same period in 2022 and were above the 2021 level which was the record high mainly because it benefited that year from extraordinary state funding to alleviate the impacts of the pandemic. The region, which usually is very prudent on its forecasts, expects to finish 2023 with 8% revenues growth, which is a very strong performance given that in 2023 there are no exceptional revenues other than the European funds such as MRR at EUR 668 million and REACT-EU at EUR 237 million. This favorable trend is expected to continue in 2024 as the regional financing system should settle the difference between the actual tax collection and the operating transfers received by the region in 2022. In 2022, inflation started to accelerate and the operating transfers granted to the Region were not adjusted, hence the expectation is for the settlement of the regional financing system to be significantly positive in 2024.

The 2024 budget is expected to be approved before the end of the year. For 2024 there are fiscal challenges related with the lack of clarity on the new fiscal rules framework from the European authorities and also the region has relied on its own forecasting capacity for the operating transfers to be received from the central government. The operating transfers cannot be communicated by the central government until it is formed and has the ability to pass the relevant law. Moreover,

Madrid's 2024 revenues could benefit from the settlement of 2022 revenues that is expected to be particularly high. Assuming the strong growth of revenues the region could be tempted to increase expenditure in the same magnitude (estimated at 8% by the region) but the regional administration has exercised a prudent budgeting strategy with a expenditure increase of 2.6% as the likely benchmark that autonomous communities could receive from the central government.

The administration has increased the resources towards digitalization and housing, transports and infrastructure (also positively impacted by the reception of MRR funds). Expenditure priorities are focused on transport & infrastructure, as well as fostering employment and environmental related policies at the same time that the administration continues to decrease the tax pressure. Most of the overall expenses growth are related with MRR investments, specifically EUR 396 million for housing, EUR 58 million for digitalization and EUR 100 million in social causes. On the other hand, the energy price shock seems to have eased and generally higher interest expenditures will have a moderate immediate impact, provided that the prudential debt management exercised at the regional government level remains (please see: Spanish Autonomous Communities' Access to State Funding Mechanisms Reduces Interest and Refinancing Risks,

https://www.dbrsmorningstar.com/research/412232).

DBRS Morningstar views positively the fiscal improvement recorded by the region in recent years, but continues to take the view that maintaining this strong performance will remain challenging. Under this scenario, strong financial governance will be key to maintain a balanced budget and the likely reimplementation of the budget stability norms by the central government from 2024 should also contribute to fiscal sustainability. A weakening of Madrid's financial results reflecting a decrease in revenues that would not be mitigated by a reduction or strong control over operating expenditure, therefore prompting a structural deterioration in the region's public finances, would negatively affect Madrid's credit profile.

Debt and Liquidity

The regional sector debt stock increased very rapidly following the global financial crisis, Madrid had a threefold increase in the debt stock between 2008 and 2022, from EUR 11.4 billion to EUR 34.8 billion. Despite this very significant rise, the region's debt sustainability position remains strong, as well as its strong access to diversified financing sources. With a debt ratio of 14.1% of regional GDP at end of 2022, the region's debt remains substantially below the average for Spanish regions of 23.9%. AIREF expects the debt ratio to decrease to 13% in 2023 on its Report of budget results, public debt and expenditure benchmark of 2023 (July 2023). Moreover in 2024 it should keep decreasing to 12% according to AIREF and the decreasing trend is expected to be maintained over the medium term.

Moreover, the debt of Madrid could potentially decrease further in the medium term as a consequence of the recent political agreement between the centre-left Partido Socialista Obrero Español (PSOE) and the pro-independence Catalan party Esquerra Republicana de Catalunya (ERC) in order to gain enough support on the central government formation, which included reference to a debt relief that is expected to be extended to all the autonomous communities except for Basque Country and Navarre. Few details on the form, date and magnitude of these commitments is made available. Despite the uncertainty, DBRS Morningstar understands that it is likely that the central

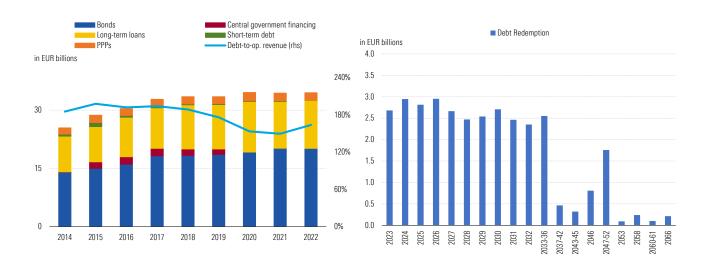
government would take over part of the debt accumulated by the autonomous communities since 2012 and considers that such a mechanism would likely improve the financial metrics of the regions, although the magnitude of this improvement is likely to vary from one region to the other. Regarding Madrid, given that it is already rated at the same level than the sovereign, we do not expect direct credit rating implications from a potential debt-relief mechanism.

Unlike most of its national peers, the region has maintained consistent access to the financial markets since the financial crisis. As a result, at the end of 2022, Madrid's bond issuances represented 58% of its debt stock or EUR 20.2 billion (Banco de España data), and 45% of the total bonds outstanding for all Spanish regions. Additionally, the region is very committed to maintain part of their funding needs covered by sustainable and green bond schemes, with the latest sustainable issuance in February 2023 for an amount of EUR 1 billion and the latest green issuance in June of 2023 for an amount of EUR 600 million. The sustainable bond schemes are issued to fund a combination of projects related with the social development or with environmental benefits, while the green bonds follows specifically the green bond principles. The use of these funding enhance the diversification and secures Madrid ability to tap the markets.

The regional debt structure is sound, with limited short-term debt, representing less than 1% of its debt stock, and about 89% of its debt at fixed rate (exhibits 3 and 4). All its debt stock is denominated in euros. Despite a substantial debt increase over the last decade, the region's cost of funding remained low but is not immune to the environment of higher interest rates globally. Overall, the government managed to contain the overall increase with a weighted cost of debt for the region at 1.97% in 2022 compared with 1.86% in 2021. Currently under the stable but higher-than-before interest rates environment, Madrid opts to use the available cash position into short term financial products of low risk that helps the region contain the increase of financial expenditure.

Madrid has also substantially extended its average maturities through long-term issuances, bank loans and private placements since 2016 with maturities up to 50 years. The region is keeping this debt strategy as demonstrated in its 2022 debt operations with maturities generally between 5 and 20 years. Most recent data on the weighted average maturities of regional debt at end-2022 stood at 8.39 years, compared with 5.34 years recorded at the end of 2012. This strategy helps Madrid maintain a debt repayment not surpassing 3 billion a year, feature that could become an asset if the liquidity markets tighten further.

Contingent liabilities have also decreased since 2012, with Public and Private Partnerships now factored into the regional government's debt. Unlike most of its Spanish peers, the region has historically had very limited recourse to the financing facilities provided by the central government. Madrid's stock of national government funded debt was fully repaid in 2020 by the region, underpinning its diversified financing sources.



Source: Ministerio de Hacienda y Función Pública, Autonomous Community of Madrid, Banco de España, DBRS Morningstar.

1. Debt refers to direct and indirect debt (data from Banco de España).

Madrid has historically recorded a relatively low cash position at the end of the year, however, the region's use short term liquidity facilities along the year provided that there are some milestones that marks the cash needs such as debt repayments or tax collection receptions. This also reflects structural features of the Spanish regional system with a clear national government payment calendar based on disbursement of monthly payments planned along the year depending on needs, and the regions need approvals to issue debt and contract loans.

Nevertheless, DBRS Morningstar takes the view that the set-up and successful launch of a Pagarés (commercial paper) programme in 2020 by Madrid, and the extension in 2022 of the size of the credit lines available to the region to EUR 1.8 billion, summing up to EUR 2.8 billion the region's liquidity toolkit, have overall strengthened its liquidity profile. The CP program also allows the region to minimize its interest cost, as it was able to issue CPs at negative interest rates in recent years and currently is an alternative for the credit lines use depending on their cost. Additionally the region invest the available excess of cash into low-risk deposits to further decrease net interest expenditure (as the result from the interest revenue and interest expenditure). DBRS Morningstar understands that the region also benefits from long-term financing dedicated to specific investments available from multilateral institutions, which supports its liquidity position. Indeed, Madrid has been able to agree a loan with the European Investment Bank (EIB) for a total of EUR 372 million for the extension of the first section of line 11 of Madrid's metro. Going forward, DBRS Morningstar will continue to monitor the use of those liquidity instruments to assess their impact, if any, on the region's liquidity profile.

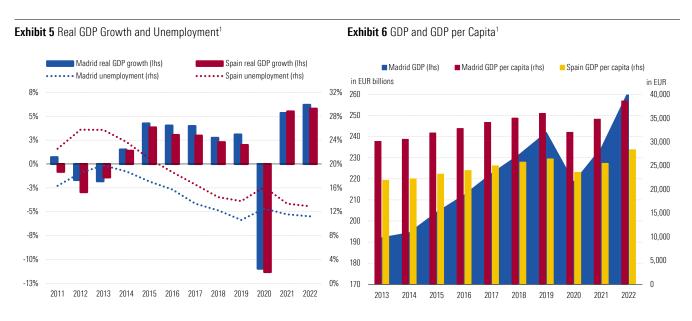
Economic Structure

Madrid, with a 20% of Spain's GDP, continues to be the largest regional economy of Spain. The regional economy is well diversified with a focus on the service sector (85%). Looking at the last five years average contributors of Madrid's GDP compared with the rest of Spain: Madrid has a 10% larger service sector accounting for 85%, a lower presence of the industry at 10.5% (against 16.2% at national level), also lower activity from construction at 4.5% (5.6% at national level) and very modest agriculture component at 0.1% (3% at national level).

The region's population continue to grow a 0.5% during the last ten years to 6.8 million inhabitants. Madrid is the third region most populated in Spain representing around 14% of the national population. The rate of employment is at 56.3% in 2022, slightly higher than national (51.1%) and the unemployment is lower than the average (9.6% against 11.6% national in H1 2023; exhibit 5).

Regarding the employment level, in June 2023, Madrid recorded an all time employment level record with 3.5 million workers after a strong growth of 3.8% from June 2022. Most of the employments are product of the services sector (87.6%). Moreover, Madrid is leading the growth of affiliations to the social security with more than 130,000 new affiliates during the last year that sum a total of 3.5 million affiliates at September, 2023. This could explain why the region benefits from the highest GDP per capita in the country, estimated at EUR 34,821 in 2021, or 36% above the national average (exhibit 6).

The tourism has recovered strongly in 2022 after a partial rebound in 2021. Tourist arrivals at hotels (domestic and foreign) during 2022 reached 87% of the levels in the same period in 2019 compared with 49% in 2021 versus 2019. This positive momentum is confirmed in 2023. The arrivals in H1 2023 were only 2% below those in H1 2019, and the duration of these stays was just 3% lower than in 2019. The national tourism recovery has been stronger than Madrid's, with already higher numbers than in 2019 but the almost complete recovery of the region's tourism activity is undoubtedly positive.



Source: Autonomous Community of Madrid, Ministerio de Hacidenda, Instituto Nacional de Estadística (INE), DBRS Morningstar

1. 2022 GDP data for the Community of Madrid is estimated and National data is provisional

For 2022, Madrid's real GDP grew by 6.2%, better than Spain's growth rate of 5.8%. After two years of strong growth following the recovery of the crisis triggered by the pandemic, AIREF expects for 2023 a more modest growth rate at 2.7%. However, this performance is consistent with what the region grew before it entered the crisis triggered by the pandemic, when it recorded an annual average real GDP growth of 3.5% between 2015 and 2019, above Spain's average of 2.8%. The

regional economy is expected to continue growing broadly in line with the national average. DBRS Morningstar expects a continuation of strong tourism performance and robust job market performance to support Spain's GDP, but increasing financing costs, and a weaker global economic growth momentum are likely to somewhat weigh on growth in 2023 and 2024.

The European Commission (EC) revised its growth projections for Spain upwards to 2.4% in 2023 and downwards in 2024 to 1.7% growth, in its Autumn 2023 economic forecast, from 2.2% for 2023, and 1.9% for 2024 at Summer. The downside risks relate to the prolonged impact on demand of the tightening financial conditions ,notably due to elevated external public and private debt. Although the increase in households purchasing power combined with the liquidity accumulated over the last years could partly mitigate the headwinds on consumption and investment.

The financial resources expected from the NGEU, including the Recovery and Resilience Facility (RRF) and REACT-EU funds, should continue to support reforms and investments. The region estimates that revenues related to these EU funds amounted to around EUR 1 billion in 2022 and EUR 0.9 billion was already utilised. Going forward, the impact of inflation on consumption and investment as well as the speed of absorption of EU funds will remain key areas of focus for DBRS Morningstar to assess the strength of the recovery within the region. Additionally, Madrid is the largest recipient of foreign investment funds with almost 50% of the national's and this should positively influence the prospects of the regional economy.

Autonomous Community of Madrid

	2017	2018	2019	2020	2021	2022
Economic Indicators						
Population ¹	6,507,184	6,578,079	6,663,394	6,779,888	6,751,251	6,769,113
GDP (EUR millions) ²	222,566	231,423	242,093	218,468	234,639	261,768
Real GDP growth ²	4.0%	2.7%	3.1%	-11.0%	5.4%	6.2%
Unemployment rate (annual)	13.3%	12.2%	10.6%	12.5%	11.6%	11.2%
Debt Section (EUR millions)						
Direct and Indirect Debt stock	32,783	33,448	33,469	34,601	34,409	34,821
Debt from the central government	1,913	1,671	1,429	0	0	0
Direct and Indirect Debt-to-operating revenues	194.0%	188.4%	175.9%	153.4%	149.5%	165.3%
Direct and Indirect Debt to GDP	14.7%	14.5%	13.8%	15.8%	14.7%	13.3%
Short-term debt ³	2,616	2,804	3,116	2,768	3,094	2,842
Short-term debt-to-operating revenues ³	15.5%	15.8%	16.4%	12.3%	13.4%	13.5%
Adjusted debt stock ⁴	34,884	35,228	35,431	36,190	35,995	37,003
Adjusted debt-to-operating revenues ⁴	206.4%	198.5%	186.2%	160.5%	156.4%	175.6%
Adjusted debt-to-GDP ⁴	15.7%	15.2%	14.6%	16.6%	15.3%	14.1%
Fiscal Performance (EUR millions)						
Operating revenues	16,902	17,749	19,028	22,550	23,013	21,071
Operating expenditure	17,474	17,523	18,399	21,068	21,669	21,374
of which Interest costs	717	736	717	735	661	613
Interest costs-to-operating revenues	4.2%	4.1%	3.8%	3.3%	2.9%	2.9%
Operating surplus/(deficit)	-571	226	629	1,482	1,345	-303
Operating surplus/(deficit)-to-operating revenues	-3.4%	1.3%	3.3%	6.6%	5.8%	-1.44%
Capital revenues	-10	91	79	137	793	870
Capital expenditure	980	1,012	1,027	1,424	1,305	1,279
Financing surplus/(deficit)	-1,561	-695	-319	196	832	-712
Financing surplus/(deficit)-to-operating revenues	-9.2%	-3.9%	-1.7%	0.9%	3.6%	-3.4%
Financing surplus/(deficit)-to-GDP ⁵	-0.51%	-0.25%	-0.26%	-0.02%	0.28%	-0.71%

Source: Autonomous Community of Madrid, General State Comptroller (IGAE), Ministerio de Hacienda y Función Pública, Instituto Nacional de Estadística (INE), Banco de España, DBRS Morningstar.

¹ Population at the beginning of the year.

^{2 2022} data for GDP are provisional from the General State Comptroller (IGAE).

 $^{3\} Short-term\ debt\ includes\ short-term\ debt, as\ well\ as\ long-term\ debt\ falling\ due\ within\ the\ next\ 12\ months.$

⁴ Figures have been adjusted by DBRS Morningstar. For more information, please see the Rating European Sub-Sovereign Governments methodology.

⁵ Financing deficit-to-GDP using national accounting standards.

Budgetary figures are presented using public accounting standards (General Administration, not consolidated) unless otherwise specified.

European Sub-Sovereign Government Scorecard

Autonomous Community of Madrid	Value
Institutional Framework	•
Sovereign Rating	A
Institutional Framework Weight	Moderate
Intrinsic Assessment	
Economic Structure	
Economic Structure Grid	Lower risk
Fiscal Management	
Fiscal Management Grid	Moderate risk
Debt and Liquidity	
Debt and Liquidity Grid	Moderate risk
Financial Metrics	Moderate risk

Note: a moderate weight for the Institutional Framework ranges from 30%-55%. The scorecard risk assessment is split as follows; Lower risk: 1.00<=score<2.25; Moderate risk: 2.25<=score<3.5; Higher risk: 3.5<=score<5.00

Source: DBRS Morningstar's Methodology: Rating European Sub-Sovereign Governments (August 2023) and Approach to Environmental, Social, and Governance Risk Factors in Credit Ratings (July 2023).

Madrid, Autonomous Community of

ESG Checklist

actor		ESG Credit Consideration Applicable to the Credit Analysis: Y/N		Extent of the Effect on ESG Factor on the Cred Analysis: Relevant (R) Significant (S)*
onme	antal	Overall:	N	N.
UIIIIIE	entar	Do the costs or risks result in changes to a government's financial standing	IN	N
	Emissions, Effluents, and	or relationship with other governments, and does this affect the assessment		
	Waste	of credit risk?	N	N
		Does a government face coordinated pressure from a higher-tier		
		government or from numerous foreign governments as a result of its GHG		
	Carbon and GHG Costs	emissions policies, and does this affect the assessment of credit risk?	N	N
		Will recent regulatory changes have an impact on economic resilience or		
		public finances?	N	N
		Carbon and GHG Costs	N	N
	Resource and Energy	Does the scarcity of key resources impose high costs on the public sector or		
	Management	make the private sector less competitive?	N	N
		Is the economy reliant on industries that are vulnerable to import or export		
		price shocks?	N	N
		Resource and Energy Management	N	N
		Is there a risk to a government's economic or tax base for failing to		
	Land Impact and Biodiversity	effectively regulate land impact and biodiversity activities?	N	N
		Will climate change and adverse weather events potentially destroy a		
		material portion of national wealth, weaken the financial system, or disrupt		
	Climate and Weather Risks	the economy?	N	N
	Passed-through	Does this rating depend to a large extent on the creditworthiness of another		
	Environmental credit	rated issuer which is impacted by environmental factors (see respective ESG		
	considerations	checklist for such issuer)?	N	N
ıl <u> </u>	Human Capital and Human	Overall: Compared with regional or global peers, is the domestic labour force more	Y	R
	Rights	or less competitive, flexible, and productive?	N	N
	nights	Are labour or social conflicts a key source of economic volatility?	N	N N
		Are individual and human rights insufficiently respected or failing to meet	IV	"
		the population's expectations?	N	N
		Is the government exposed to heavy, coordinated international pressure as	14	
		a result of its respect for fundamental human rights?	N	N
		Human Capital and Human Rights	N	N
		Does a failure to provide adequate basic services deter investment,		
	Access to Basic Services	migration, and income growth within the economy?	N	N
		Does this rating depend to a large extent on the creditworthiness of another		
	Passed-through Social credit	rated issuer which is impacted by social factors (see respective ESG		
	considerations	checklist for such issuer)?	Υ	R
manc	ce	Overall: Does widespread evidence of official corruption and other weaknesses in	N	N
	Bribery, Corruption, and	the rule of law deter investment and contribute to fiscal or financial		
	Political Risks	challenges?	N	N
	Institutional Strength,			
	Governance, and	Compared with other governments, do institutional arrangements provide a		
	Transparency	higher or lesser degree of accountability, transparency, and effectiveness?	N	N
		Are regulatory and oversight bodies insufficiently protected from		
		inappropriate political influence?	N	N
		Are government officials insufficiently exposed to public scrutiny or held to		
		insufficiently high ethical standards of conduct?	N	N
		Institutional Strength, Governance, and Transparency	N	N
		Is the government likely to initiate or respond to hostilities with neighboring		
	Peace and Security	governments?	N	N
		Is the government's authority over certain regions contested by domestic or		
		foreign militias?	N	N
		Is the risk of terrorism or violence sufficient to deter investment or to create		
-		contingent liabilities for the government?	N	N
		Peace and Security	N	N
		Does this rating depend to a large extent on the creditworthiness of another		
		rated issuer which is impacted by governance factors (see respective ESG		1
	Passed-through Governance credit considerations	checklist for such issuer)?	N	N

^{*} A Relevant Effect means that the impact of the applicable ESG risk factor has not changed the rating or rating trend on the issuer.

A Significant Effect means that the impact of the applicable ESG risk factor has changed the rating or trend on the issuer.

Autonomous Community of Madrid: ESG Considerations

Environmental

This factor does not affect the credit ratings assigned to Madrid. Madrid has reinforced its environmental policies in recent years, supported by the launch of sustainable and green bond issuances under the region's sustainable finance framework. Nevertheless, the 2020 European Social Progress Index places Madrid at the bottom of Spanish regions in terms of environment quality. This reflects the focus of this indicator on air quality, that is likely to be adversely affected by Madrid's high population density as well as its role as capital and economic hub in Spain. Further progress towards enhanced environmental policies are expected in coming years possibly through the implementation of its "Strategy for Adaptation and Mitigation of Climate Change 2021-2030", expected to be supported by European Union funds.

Social

This factor does not affect the credit ratings, however, the Passed-through Social credit consideration is relevant to the credit ratings, as the social factors affecting the Kingdom of Spain's credit ratings are partially passed-through to Madrid. Human capital, as measured by GDP per capita, is factored in the Spanish credit rating, which has been used as an input for Madrid's credit credit ratings. Madrid's GDP per capita is above the national level, estimated at EUR 34,821 or approximately 137% of the national average in 2021. Respect for human rights is high, and there is widespread access to quality healthcare and other basic services within the regional territory. Madrid tops the Spanish regional ranking for Health and Wellness under the 2020 European Social Progress Index.

Governance

This factor does not affect the credit ratings. Madrid's governance and transparency is strong. The region, in line with national peers, has strengthened its financial reporting over the last decade. As for other regional governments in Spain, Madrid publishes information on monthly budgetary execution, on the monthly commercial debt position as well as information regarding delays in paying suppliers. Greater transparency may indicate good governance, a positive credit feature. While Madrid benefits from some autonomy, it needs to abide by 2/2012 Organic Law on Budgetary Stability and Financial Sustainability that sets targets in terms of fiscal performance, debt and expenditure levels for all government tiers in Spain.

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