

CREDIT OPINION

15 February 2023

Update

 Send Your Feedback

Contacts

Sarah Carlson, CFA +33.1.5330.3353
 Senior Vice President
 sarah.carlson@moodys.com

Lenaic Couderc +44.20.7772.1799
 Associate Analyst
 lenaic.couderc@moodys.com

Dietmar Hornung +49.69.70730.790
 Associate Managing Director
 dietmar.hornung@moodys.com

Marie Diron +44.20.7772.1968
 MD-Sovereign Risk
 marie.diron@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

Government of Italy – Baa3 negative

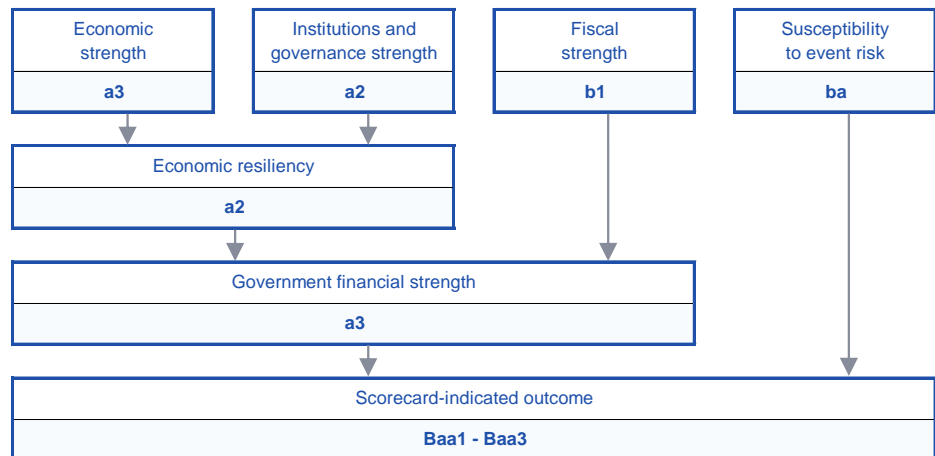
Update following forecast changes

Summary

Our credit view of [Italy](#) balances the economy's large size, high household wealth, low private-sector indebtedness, solid external position and economic diversification against weak growth potential and elevated public debt levels. Tighter financial conditions, risks to growth from elevated inflation and energy shortages and a more complex political environment pose risks to Italy's debt dynamics. Italy's rating also reflects our assumption that core euro area countries will be inclined to support Italy in case of need.

Exhibit 1

Italy's credit profile is determined by four factors



Source: Moody's Investors Service

Credit strengths

- » Large and diverse economy with high household wealth and low private-sector debt;
- » Professional management of the large public debt burden and strong (though weakening) debt affordability metrics;
- » Solid external position with almost-consistent current-account surpluses.

This publication provides an update on the sovereign credit profile and may also discuss the likely credit implications of a new development or trend for the sovereign. It does not announce a credit rating action.

Credit challenges

- » Weak growth potential in the absence of structural reforms;
- » High public debt increases vulnerability to shocks, limits fiscal room for manoeuvre;
- » Importance of investor confidence given high refinancing needs.

Rating outlook

The negative outlook reflects an accumulation of risks to Italy's credit profile, most notably 1) risks that the political environment will impede implementation of structural reforms; 2) risks that constrained energy supplies will weaken economic prospects; and 3) risks that fiscal strength will weaken.

Significant delays to the execution of the country's National Recovery and Resilience Plan (NRRP), either as a result of a lack of reform progress or a renegotiation of the plan, would put downward pressure on investment spending at a time when economic activity is already weak. While the immediate risk of energy shortages has abated, concerns could reemerge if Italy does not replenish gas storage ahead of next winter. Finally, a positive differential between nominal growth and interest rates is key to our baseline and the debt trajectory is vulnerable to shocks. Significantly weaker economic growth or more elevated borrowing costs than we currently assume would lead to a rise in the debt burden if, as we expect, Italy continues to run primary deficits until 2024.

Factors that could lead to an upgrade

Although a rating upgrade is unlikely in the near future, we would consider changing the outlook to stable if Italian institutions, growth prospects and the debt trajectory proved resilient to downside risks stemming from policy uncertainty, risks to energy security and rising borrowing costs. Evidence that the new government is committed to the implementation of growth-enhancing structural reforms, including those outlined in the country's NRRP, would likely lead to a stabilisation of the outlook if this was accompanied by a credible medium-term fiscal consolidation plan that would prevent debt from significantly rising.

Factors that could lead to a downgrade

We would likely downgrade Italy's ratings if we were to anticipate a significant weakening of the country's medium-term growth prospects, possibly due to a failure to implement growth-enhancing reforms, including those outlined in the country's NRRP. Signs that the debt was likely to start significantly trending upwards, either as a result of materially weaker growth prospects, a spike in interest costs or material fiscal loosening, would be negative for the ratings. Fiscal and/or economic policies that weakened market sentiment and caused debt levels to rise over the medium term would also lead to downward rating pressure.

Key indicators

Exhibit 2

| Italy | 2017 | 2018 | 2019 | 2020 | 2021 | 2022E | 2023F | 2024F |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Real GDP (% change) | 1.7 | 0.9 | 0.5 | -9.0 | 6.7 | 3.9 | 0.3 | 0.6 |
| Inflation (CPI, % change, Dec/Dec)[1] | 1.0 | 1.2 | 0.5 | -0.3 | 4.2 | 12.3 | 3.3 | 2.3 |
| Gen. gov. financial balance/GDP (%) | -2.4 | -2.2 | -1.5 | -9.5 | -7.2 | -5.0 | -4.6 | -3.7 |
| Gen. gov. primary balance/GDP (%) | 1.4 | 1.5 | 1.9 | -6.0 | -3.7 | -0.8 | -0.4 | 0.4 |
| Gen. gov. debt/GDP (%) | 134.2 | 134.4 | 134.1 | 154.9 | 150.3 | 146.7 | 146.6 | 146.6 |
| Gen. gov. debt/revenues (%) | 289.5 | 290.8 | 285.6 | 327.4 | 312.4 | 300.6 | 303.5 | 304.1 |
| Gen. gov. interest payment/revenues (%) | 8.1 | 7.9 | 7.2 | 7.3 | 7.4 | 8.6 | 8.7 | 8.5 |
| Current Account Balance/GDP (%) | 2.7 | 2.6 | 3.3 | 3.9 | 3.1 | -0.9 | 0.8 | 0.8 |

[1] Harmonized Index of Consumer Prices (HICP)

Source: Moody's Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody's.com> for the most updated credit rating action information and rating history.

Detailed credit considerations

We assess Italy's **economic strength** as "a3", which reflects the size and diversification of the economy as well as the relatively low indebtedness of the private sector. Households in particular have low debt and high financial wealth, which provides some buffers against economic shocks. However, some structural challenges, which have been left unaddressed for many years, weigh on growth potential such as labour market rigidities, a high tax burden and an inefficient public sector. As a result, we have set the final score one notch below the initial score of "a2".

The slowdown in global growth and the energy crisis in Europe continue to weigh on the economic outlook. Recovery funds from the [European Union](#) (EU, Aaa stable) will continue to provide support to investment but implementation risks have increased. The implementation of the structural reforms such as those outlined in the NRRP are key to durably lift Italy's growth potential.

We assess Italy's **institutions and governance strength** as "a2", reflecting the benefits from EU and euro area membership in terms of transparency and policymaking. Despite ranking better than global rating peers, Italy scores poorly compared to other Western European countries on international surveys, particularly for rule of law and control of corruption. Lengthy proceedings and a significant backlog of court cases in the judicial system remain a weakness and weigh on the business environment and the attractiveness of Italy as an investment destination; judicial reform is part of the NRRP. Successive governments have pursued structural economic reforms, but overall these efforts have been halting at best and have not resulted in tangible improvements.

Our "b1" score for **fiscal strength** mainly reflects the very elevated public debt ratio, which we forecast to stabilise at around 145% of GDP. Successive governments managed to sustain reasonably solid primary surpluses even in periods of political volatility, giving some confidence that primary surpluses will reemerge in the coming years. In spite of these primary surpluses, though, weak growth has prevented the authorities from making large reductions in the public debt ratio over the last two decades. A positive differential between nominal growth and interest rates is key to our baseline and the debt trajectory is highly vulnerable to shocks, though higher funding costs will be relatively slow to feed through to higher interest payments given Italy's reasonably long debt maturity of seven years as at end-January 2023. That said, debt affordability metrics have started deteriorating because just over 20% of Italy's debt is either inflation-linked or floating rate. The fiscal strength score also reflects Italy's comparatively high level of debt associated with state-owned enterprises.

Our "ba" assessment of **susceptibility to event risk** is driven by banking sector risks.

Our "baa" score for **political risk** reflects both domestic and geopolitical risks. On the domestic side, our view is that the political dynamics in Italy tend to be a bigger source of volatility than in many other advanced economies. Italy has a history of short-lived and unstable coalition governments, often comprising several parties with diverging policy agendas which complicates the formulation and implementation of structural reforms that would bring benefits only over the medium term. Although Italy's NATO membership is ultimately a guarantor of national security, the country also faces contagion risks from the Russia-[Ukraine](#) (Ca stable) war as it is bound by NATO's Article 5 collective defense clause, which treats an attack on any NATO member as an attack on all treaty signatories. The EU's Mutual Defence Clause (Article 42.7 of the Lisbon Treaty) would also apply if the conflict involved an EU country. While this is not our base case because of the deterrent effect of these clauses, there is a heightened risk that these treaty obligations could ultimately result in Italy needing to use armed force to restore and maintain stability in Europe. The probability of such risks materialising have increased in light of the ongoing war between Russia and Ukraine.

We consider susceptibility to **government liquidity risk** as "baa". Investor confidence is important given Italy's large gross borrowing requirements at around 20% of GDP each year. Although the ECB's bond purchase programmes have ensured favourable funding conditions, monetary policy normalisation will leave Italy more exposed to investor confidence at a time when the government needs investors to play an increased role in the Italian debt market. We do not expect the reinvestment of maturing debt under the Pandemic Emergency Purchase Programme (PEPP) and the Transmission Protection Instrument (TPI) will be a panacea against rising yields in all circumstances. In our view, the ECB will be less likely to activate TPI quickly if the rise in yields is unambiguously triggered by domestic policy choices.

We assess Italy's susceptibility to **banking sector risk** as "ba", which mainly reflects the risks the Italian banking sector poses to the government's balance sheet. The system entered the pandemic with stronger capital and liquidity buffers than it had before the global financial crisis. That said, interlinkages between the sovereign and banks remain material, also due to the large holdings of

Italian government bonds on banks' balance sheets. The steady improvement in the sector's asset quality has been facilitated by the government's *Garanzia sulla Cartolarizzazione delle Sofferenze* (GACS) guarantee program, at the expense of higher contingent liabilities worth around 0.7% of GDP in 2021.

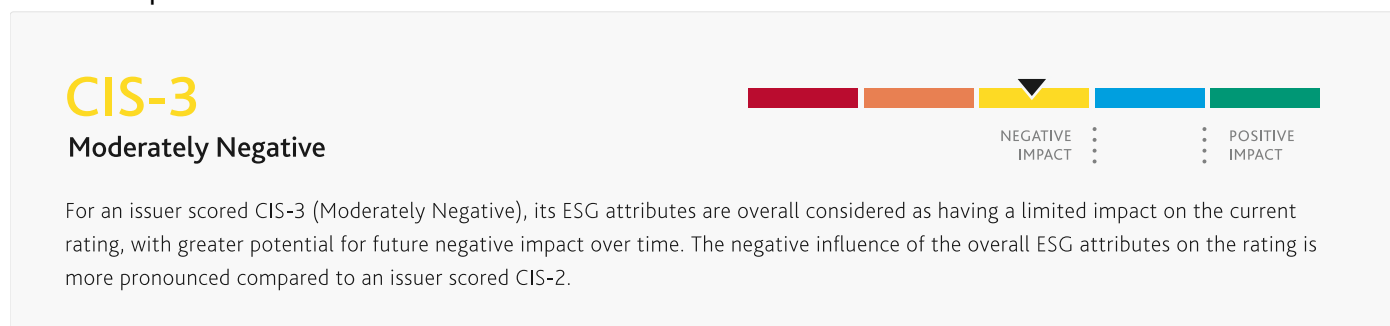
We assess **external vulnerability risk** as "aa", reflecting the strong improvement in Italy's external position since the euro area debt crisis. Persistent current-account surpluses and valuation effects have supported a narrowing of Italy's net debtor position, which stood at 8.1% of GDP in 2021. That said, higher energy prices and the larger import content of investment have pushed the current account into a small deficit of less than 1% of GDP in 2022 for the first time since 2012.

ESG considerations

Italy's ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 3

ESG Credit Impact Score

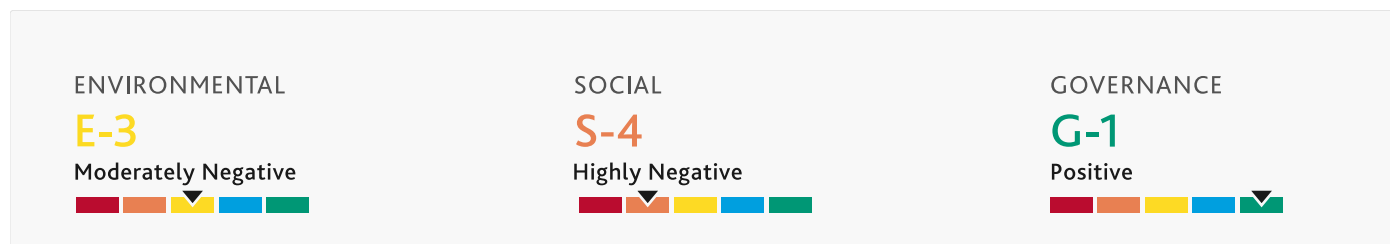


Source: Moody's Investors Service

Italy's ESG Credit Impact Score is moderately negative (**CIS-3**), reflecting a combination of moderate exposure to environmental risks, high exposure to social risks and, like many other advanced economies, very strong governance and in general strong capacity to respond to shocks.

Exhibit 4

ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

Italy's E issuer profile score is moderately negative (**E-3**). Italy has low exposure to environmental risks across most categories, though the country has a moderate exposure to physical climate risk, in particular water and heat stress as well as wildfires. Italy is among the most exposed to heat stress in Southern Europe according to Moody's climate risk data. Agriculture, though a relatively small share of GDP and employment, is located in regions that are at higher risk of drought around the Po River and in the South. Although it generates a relatively small share of electricity supply (20%), hydropower is the second largest source of energy generation and is affected by recurring droughts.

Social

We assess Italy's S issuer profile score as highly negative (**S-4**), mainly due to high demographic risks as well as risks related to labour and income. Italy has one of the oldest populations already now and public social spending is heavily geared towards pensions. Labour force participation rates are low for an advanced economy, in particular for women, and regional divergences in unemployment are profound, reflecting at least in part ineffective labour market institutions. Successive governments have implemented pension reforms over the past, which provides an important mitigating factor for the rapid ageing of the population, though health care spending and long-term care spending are still set to rise in the coming decades. Exposure to other social risks such as housing, health and safety issues and access to basic services is low or very low.

Governance

Italy's very high institutions and governance strength is reflected in a positive G issuer profile score (**G-1**). In a global comparison, Italy scores well on global surveys assessing voice & accountability, regulatory quality and government effectiveness. Italy scores somewhat weaker on control of corruption and rule of law than other European countries, but in line with other similarly rated sovereigns. Fiscal transparency and planning is good, with Italy benefitting from European fiscal rules and the credibility of the European Central Bank.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

All of these considerations are further discussed in the "Detailed credit considerations" section above. Our approach to ESG is explained in our report on how the [scores depict varied and largely credit-negative impact of ESG factors](#) and our cross-sector methodology [General Principles for Assessing Environmental, Social and Governance Risks Methodology](#).

Recent developments

Immediate economic risks have moderated but growth will be weak in 2023

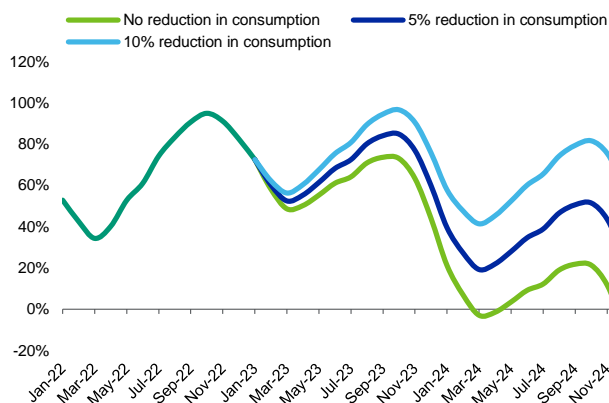
According to preliminary estimates, real GDP grew 3.9% in 2022 supported by consumption and investment. However, inflationary pressures stemming chiefly from high energy prices and the associated tightening in monetary policy progressively weighed on economic activity. After growing by 0.6% on average over the first three quarters, the real economy contracted by 0.1% in the last three months of 2022. Increasing prices exerted a drag on purchasing power although government support measures of over 3% of GDP as well as a drawdown on savings from the pandemic helped cushion the impact on consumption. Investment remained strong despite a slowdown in the second half due to increased uncertainty and higher cost of financing. Net exports were a drag on growth because of muted export growth while import demand continued to increase owing to high investment.

For 2023, we have substantially revised our real GDP growth forecasts upwards to +0.3% from -1.4% to reflect the diminished risks of energy shortages in the short term and the recent fall in energy prices. High storage levels and a reduction in gas consumption, in part thanks to warmer weather, have materially reduced the immediate risks of energy rationing. That said, risks of energy shortages may reemerge in the second half of 2023 if storage levels are not adequate at the start of next winter. Assuming no gas imports from Russia, limited additional supply from alternative sources and gas consumption in line with the average of the last eight years, we estimate that gas storage would be depleted by February 2024. A 5% reduction in gas consumption over the year would keep storage levels above 20% through 2024 (over 2022, gas consumption was 3.7% lower than the average of the last eight years).

The significant decline in gas prices over the past few months will reduce pressures on consumers and businesses and allow for a gradual pickup in activity but we expect energy prices will continue to remain volatile with upside risks for the inflation outlook. Private consumption will be more muted than in 2022 given that households already used some savings to maintain purchasing power and wage growth is still very weak at less than 2%. The savings ratio stood at 8.8% in the third quarter of 2022, more than 1 percentage point below pre-pandemic levels. We also expect investment to moderate as the generosity of renovation tax incentives was reduced by the government although the NRRP will continue to provide a degree of support to growth, mainly through public investment.

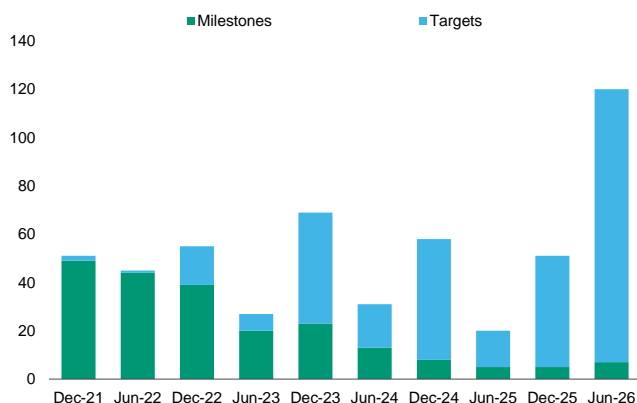
On 31 December, Italy submitted a payment request for its third installment of NGEU funds worth €19 billion, having completed all 55 milestones and targets. In 2023, Italy will be able to unlock €34 billion (1.7% of GDP) in two installments provided it meets 96 milestones and targets. Implementation of the NRRP will now be increasingly assessed based on quantitative targets¹, which will leave less room for interpretation and will test Italy's ability to deliver on the reforms contained in the NRRP.

Exhibit 5
In the absence of Russian gas, risks to energy supply will reemerge if consumption is not reduced
 Gas storage levels (%)



Source: Moody's Investors Service

Exhibit 6
Quantitative targets are now more important for the NRRP



Source: European Commission and Moody's Investors Service

Deficit will remain larger to support the economy

We have also revised our estimate of the fiscal deficit for 2022 to 5.0% of GDP from 5.6% to reflect a better-than-expected revenue outturn as well as lower spending growth. We forecast the deficit will decline to 4.5% of GDP in 2023, in line with the budget, despite the estimated better outturn for 2022, reflecting our more pessimistic macroeconomic assumptions as well as our expectation that the government will likely extend some of the support measures beyond the first quarter as energy prices remain elevated.

In its opinion on the draft budget, the European Commission (EC) assessed the plan was in line with the stance outlined by the Council. The EC also pointed that some measures were not consistent with past country-specific recommendations such as the increase in the ceiling for cash transactions, a tax amnesty and the renewal of early retirement schemes.

Deficits remaining higher for longer will affect the debt trajectory; we now expect that debt will remain stable at around 146% of GDP in the next two years and gradually decrease thereafter. High inflation and increasing borrowing costs have had an adverse impact on debt affordability metrics, though this deterioration remains manageable. We currently expect interest payment to absorb 8.7% of government revenue and remain broadly stable thereafter as the benefits of lower inflation will largely be offset by higher borrowing costs.

Moody's rating methodology and scorecard factors: Italy - Baa3 negative

| Factor / Sub-Factor | Metric | Indicator Year | Indicator | Initial Factor Score | Final Factor Score | Weights |
|---|--|------------------|-----------|----------------------|--------------------|---------|
| Factor 1: Economic strength | | | | | | |
| Growth dynamics | Average real GDP growth (%) | 2017-2026F | 0.8 | caa1 | | 25% |
| | MAD Volatility in Real GDP Growth (%) | 2012-2021 | 0.8 | baa1 | | 10% |
| Scale of the economy | Nominal GDP (\$ billion) | 2021 | 2,107.6 | aaa | | 30% |
| National income | GDP per capita (PPP, Int\$) | 2021 | 46,164.6 | aa1 | | 35% |
| Adjustment to factor 1 | # notches | | | | -1 | max ±9 |
| Factor 2: Institutions and governance strength | | | | | | |
| Quality of institutions | Quality of legislative and executive institutions | | | a | | 20% |
| | Strength of civil society and the judiciary | | | a | | 20% |
| Policy effectiveness | Fiscal policy effectiveness | | | a | | 30% |
| | Monetary and macroeconomic policy effectiveness | | | a | | 30% |
| Specified adjustment | Government default history and track record of arrears | | | | 0 | max -3 |
| Other adjustment to factor 2 | # notches | | | | 0 | max ±3 |
| F1 x F2: Economic resiliency | | | | | | |
| Factor 3: Fiscal strength | | | | | | |
| Debt burden | General government debt/GDP (%) | 2021 | 150.3 | ca | | 25% |
| | General government debt/revenue (%) | 2021 | 312.4 | ba3 | | 25% |
| Debt affordability | General government interest payments/revenue (%) | 2021 | 7.4 | a1 | | 25% |
| | General government interest payments/GDP (%) | 2021 | 3.6 | ba3 | | 25% |
| Specified adjustments | Total of specified adjustment (# notches) | | | | -1 | max ±6 |
| | Debt Trend - Historical Change in Debt Burden | 2013-2021 | 17.8 | 0 | 0 | |
| | Debt Trend - Expected Change in Debt Burden | 2021-2023F | -3.7 | 0 | 0 | |
| | General Government Foreign Currency Debt/ GDP | 2021 | 0.2 | 0 | 0 | |
| | Other non-financial public sector debt/GDP | 2021 | 29.0 | -1 | -1 | |
| | Government Financial Assets including Sovereign Wealth Funds / GDP | 2021 | 2.1 | 0 | 0 | |
| Other adjustment to factor 3 | # notches | | | | 0 | max ±3 |
| F1 x F2 x F3: Government financial strength | | | | | | |
| Factor 4: Susceptibility to event risk | | | | | | |
| Political risk | Domestic political risk and geopolitical risk | | | baa | | Min |
| Government liquidity risk | Ease of access to funding | | | a | baa | |
| | High refinancing risk | | | a | | |
| Specified adjustment | | | | | -1 | max -2 |
| Banking sector risk | Risk of banking sector credit event (BSCE) | Latest available | ba1 | ba1-ba2 | | |
| | Total domestic bank assets/GDP | 2021 | 223.5 | 180-230 | | |
| Adjustment to F4 BSR | # notches | | | | 0 | max ±2 |
| External vulnerability risk | External vulnerability risk | | | aa | aa | |
| Adjustment to F4 EVR | # notches | | | | 0 | max ±2 |
| Overall adjustment to F4 | # notches | | | | 0 | max -2 |
| F1 x F2 x F3 x F4: Scorecard-indicated outcome | | | | | | |
| | | | | Baa1 - Baa3 | Baa1 - Baa3 | |

Note: While information used to determine the grid mapping is mainly historical, our ratings incorporate expectations around future metrics and risk developments that may differ from the ones implied by the scorecard-indicated outcome. Thus, the rating process is deliberative and not mechanical, meaning that it depends on peer comparisons and should leave room for exceptional risk factors to be taken into account that may result in an assigned rating outside the scorecard-indicated outcome. For more information please see our Sovereign Ratings Methodology.

Footnotes: (1) **Initial factor score:** scorecard indicators combine with the automatic adjustments to produce an initial factor score for every rating factor, as detailed in Moody's Sovereign Ratings Methodology. (2) **Final factor score:** where additional analytical considerations exist, initial factor scores are augmented to produce a final factor score. Guidance on additional factors typically considered can be found in Moody's Sovereign Ratings Methodology; details on country-specific considerations are provided in Moody's research. (3) **Scorecard-indicated outcome:** Factor 1: Economic Strength, and Factor 2: Institutions and Governance Strength, combine with equal weight into a construct we designate as Economic Resiliency (ER). An aggregation function then combines ER and Factor 3: Fiscal Strength, following a non-linear pattern where Fiscal Strength has higher weight for countries with moderate ER and lower weight for countries with high or low ER. As a final step, Factor 4, a country's Susceptibility to Event Risk, is a constraint which can only lower the government financial strength as given by combining the first three factors. (4) **There are 20 ranking categories for quantitative sub-factors:** aaa, aa1, aa2, aa3, a1, a2, a3, baa1, baa2, baa3, ba1, ba2, ba3, b1, b2, b3, caa1, caa2, caa3, ca and 8 ranking categories for qualitative sub-factors: aaa, aa, a, baa, ba, b, caa, ca (5) **Indicator value:** if not explicitly stated otherwise, the indicator value corresponds to the latest data available.

Moody's related publications

- » **Outlook:** [Euro area: 2023 outlook is negative driven by the energy crisis and geopolitics](#), 16 January 2023
- » **Credit Opinion:** [Government of Italy: Update following methodology update](#), 6 December 2022
- » **Issuer Comment:** [Government of Italy: Election results reduce political uncertainty but coalition policy choices remain unclear](#), 26 September 2022
- » **Issuer in-Depth:** [Government of Italy: GAQ on politics, energy exposure and debt trajectory](#), 11 August 2022
- » **Sector in-Depth:** [Sovereigns – Europe: Credit-negative stagflation scenario now more likely in the EU, but country-specific exposures vary](#), 2 August 2022
- » **Issuer in-Depth:** [Governments of Germany and Italy: Halt to Russian gas supplies would significantly weaken growth and fiscal metrics](#), 13 July 2022
- » **Credit Analysis:** [Government of Italy – Baa3 stable: Annual credit analysis](#), 17 May 2022
- » **Rating Methodology:** [Sovereigns](#), 22 November 2022

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

- 1 Milestones represent a qualitative implementation step, targets a quantitative implementation step

© 2023 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1357786