



Beyond Bundeslaender – Autonomous Portuguese regions

NORD/LB Floor Research

September 2024

Marketing communication (see disclaimer on the last pages)

NORD/LB PUBLIC ISSUERS SPECIAL 2024 Beyond Bundeslaender: Autonomous Portuguese regions

List of authors

Dr Norman Rudschuck, CIIA
Floor analyst, SSA/Public Issuers
Managing Director
norman.rudschuck@nordlb.de

Christian Ilchmann
Floor analyst, SSA/Public Issuers
Associate Director
christian.ilchmann@nordlb.de

Assisted by Maike Maas



Public Issuers Special 2024 Beyond Bundeslaender: Autonomous Portuguese regions

Authors: Dr Norman Rudschuck, CIIA // Christian Ilchmann // assisted by Maike Maas

Introduction and the Portuguese political system

In this publication, we - once again - shall be shining a light on Portugal's Atlantic islands of Madeira and the Azores. Portugal is a decentralised unitary state, though it is de facto highly centralised in its organisational structure. The Portuguese mainland is divided into 18 districts (distritos) at the highest level, which are each named after their capital, and in turn sub-divided into 308 counties (municípios) and 3,092 municipalities (freguesias). In contrast to this, the groups of islands that are the focus of this publication have the status "autonomous region" (região autónoma) and therefore have their own administration. In addition, Portugal is divided into five regions, but these are only of statistical significance. Portugal is a representative democracy with a semi-presidential system of government. The most important executive organs are the President and the Prime Minister with the associated Council of Ministers. The Portuguese President, who is directly elected by the Portuguese electorate every five years, nominates the Prime Minister on the basis of the results of the parliamentary elections. The parliament, known as the Assembleia da República, consists of one chamber and is elected every four years. As autonomous communities, Madeira and the Azores have had extensive legislative powers since 1976. These powers do not cover foreign policy, defence or internal security. Both regions therefore have a regional executive (governo regional) with a Regional President and a democratically elected legislative assembly (assembleia regional). As parts of Portugal, the two autonomous regions have been in the European Union since 1986.

Current political situation

The current head of state, Marcelo Rebelo de Sousa, has been President since 2016. As a member of the "Partido Social Democrata" (PSD), he won the election against his independent opponent Antonio Sampaio da Novoa in the first round with 52% of the votes cast. In 2024, the cabinet led by António Costa of the Socialist Party was replaced by a government led by the newly elected Prime Minister Luís Montenegro from the PSD. This minority government consists of twelve PSD ministers and five independent ministers. Since taking office, President Rebelo de Sousa has advocated overcoming the social divide resulting from the debt crisis and associated austerity measures. As a result of the financial crisis in 2008/09, Portugal encountered payment difficulties in the following years owing to its substantial government debt. In May 2011, the country received a bail-out in the amount of EUR 78bn from the euro rescue package. During the peak in 2014, government debt amounted to 132.9% of GDP (average in the EU: 93.5%). The measures to reduce the debt burden envisaged tough reforms, which were associated with far-reaching cuts for the population. Since 2015, the economy has largely stabilised. Between 2019 and 2023, GDP rose by an average of +1.9% each year. Portugal was hit hard by the COVID-19 pandemic and suffered a decline in real GDP of -8.3% Y/Y in 2020. Since 2013, the unemployment rate has been steadily falling and amounted to 6.6% in 2023.



2023 values in EUR (2022)

Nominal GDP
265bn (242bn)

Real GDP growth
+2.3% (+6.8%)

Nominal GDP per capita
(vs. 2022)
25,740 (+2,210)

Unemployment rate
6.5% (6.2%)

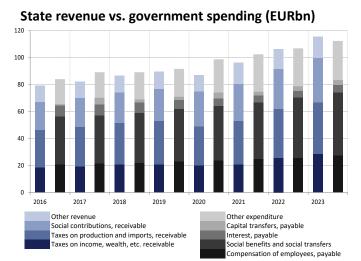
Budget balance
3.2bn (-0.8bn)

Budget balance / GDP
1.2% (-0.3%)

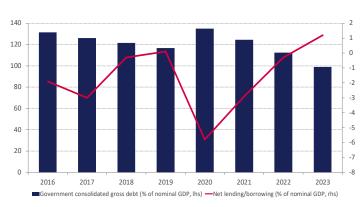
Debt / GDP
99.1% (112.4%)

Development of the Portuguese economy

Although the agricultural sector is rather small, accounting for just under 2.2% of nominal GDP in 2022, it employed over 10% of the population. Primary areas of the Portuguese economy include grain farming, wine production and fishing. However, following a switch to synthetic wine corks and with fishing quotas upheld to secure sardine stocks, this sector is constantly confronted by new challenges. Manufacturing industries accounted for roughly 21.3% of GDP in 2022. Here, the most important sectors include the automotive industry, steel processing and the paper industry. In 2022, 322,404 vehicles were manufactured in Portugal, which are mainly exported to other EU countries. Portugal's most important trading partners include Germany, its neighbour Spain and France. At 76.5%, the service sector accounted for the largest share of GDP in 2022. The focus on renewable energies and modernisation of infrastructure should also be highlighted. For example, Montijo Airport (which serves the Lisbon region) is being expanded, while the metro lines in Lisbon and Porto are being extended. It is hoped that this will also have a positive effect on tourism. As one of the most important sectors of the service-oriented economy, tourism collapsed in March 2020 following the global travel restrictions implemented to combat COVID-19. In July, tourist numbers were 64% down on the level of the previous year. Since 2022, tourist numbers have been on the rise again, which is not least due to investments being made in upgrading the infrastructure of Portugal. Similarly to other EU Member States, Portugal was also affected by the consequences of the war in Ukraine, for example in the form of the resultant supply bottlenecks and sharp rise in inflation. In 2022, inflation stood at around 8.1%, before falling to 5.3% by year-end 2023. In the same year (2022), Portugal recorded a real GDP growth of +6.8%. With the ECB hiking key interest rates by 450 basis points between July 2022 and September 2023 as a way of counteracting rampant inflation in the Eurozone, the resulting interest burden also increased, particularly due to Portugal's above-average debt level. At the same time, however, as a result of inflation, revenues from income and wealth taxes rose disproportionately, so that in 2023 total revenue exceeded total expenditure on the national level for the first time since 2013. Likewise, since 2020, government debt has been significantly cut to below 100% of nominal GDP. In the future, the Portuguese economy will also benefit from EU support (2021-2027: EUR 60bn), which will be put to modernising infrastructure and education system.



National debt vs. budget balance (%)



Source: Eurostat, NORD/LB Floor Research





General information Number of inhabitants (2023)

253,259

Capital city

Funchal

Nominal BIP (2022)*

EUR 6.0bn

Nominal GDP per capita (2022)*

EUR 23.675

Unemployment (2023)

6.2%

Gross debt level (2022)

EUR 5.0bn (83.3% of GDP)

Bloomberg ticker

GOVMAD

Outstanding volume

EUR 2.9bn

No FX diversification

Ratings

	Long-term	Outlook
Fitch	BBB+	stab
Moody's	Ba1	stab
S&P	-	_

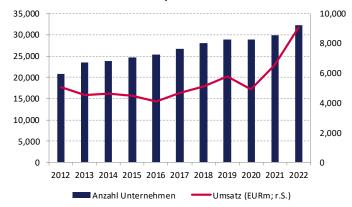
Madeira

The archipelago of Madeira consists of a group of islands covering an area of 801km² in the Atlantic Ocean, located around 600km off the northwest coast of Africa and 1,000km southwest of Lisbon. With 253,259 inhabitants (2023), approximately 2.4% of the Portuguese population lives on Madeira. In addition to the main island, Madeira, with its capital Funchal (approximately 110,000 inhabitants), the group of islands consists of the far smaller Porto Santo Island (approximately 5,600 inhabitants) and three uninhabited ones. Together with the Ilhas Selvagens (Savage Islands), located 280km south of the main island, the archipelago constitutes the autonomous region of Madeira. A regional government and a parliament have been instituted within the framework of a separate administration for Madeira since 1976. Taking account of its nominal GDP per capita of EUR 23,675 (2022), Madeira ranks third among all Portuguese regions. The tertiary sector accounts for the bulk of economic activities, driven primarily by long-standing growth in the tourism sector. Accordingly, the sector's contribution to the regional gross value added amounted to roughly 16%. Closer examination of the sub-segments shows that the economy is dominated by companies operating in the hotel industry and wholesale trades, in addition to banks. In the secondary sector, the food and tobacco industry as well as construction account for the largest shares. By joining the EU free trade zone, Madeira benefits from the advantages associated therewith and also operates as a global offshore financial centre through the International Business Center of Madeira (IBCM). Through a number of legislative decrees from 1986 onwards, which were supported by the EU, the region benefits from tax privileges. This aims to generate foreign investment and make the Portuguese corporate landscape more international. Specifically, the IBCM levies a tax rate on corporate profits of 5% for companies registered on Madeira until at least 2027, as against a tax rate of 21% in mainland Portugal. Accordingly, 50% of regional earnings from corporation tax is already attributable to IBCM. The volume of economic output generated by companies under the umbrella of the IBCM also amounts to 15% of national GDP. With respect to the challenging global economic situation, the economy of Madeira grew by an average of +5.3% (between 2017 and 2022) on the back of opening-up processes. As a result, its competitive standing has been enhanced.

External trade balance over time (EURm)



Number of Madeiran companies and trend in sales



Source: Direção Regional de Estatística da Madeira, Eurostat, NORD/LB Floor Research

^{*} Provisional data





General information Number of inhabitants (2023)

239,942

Capital city

Ponta Delgada

Nominal BIP (2022)*

EUR 5.1bn

Nominal GDP per capita (2022)*

EUR 21,096

Unemployment (2023)

6.9%

Gross debt level (2022)

EUR 3.1bn (60.8% of GDP)

Bloomberg ticker

AZORES

Outstanding volume

EUR 2.3bn

No FX diversification

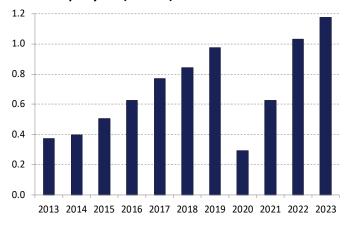
Ratings

	Long-term	Outlook
Fitch	BBB	stab
Moody's	Ba1	stab
S&P	_	_

The Azores

The Azores are a Portuguese island group situated in the middle of the Atlantic Ocean between the Eurasian and the North American plates. The most western point of Europe can therefore be found on the Azores. The group of islands includes nine larger inhabited islands with a total population of 239,942 and numerous smaller uninhabited ones. Approximately 138,000 people live on the main island, São Miguel, of whom roughly 69,000 live in the capital Ponta Delgada. With GDP per capita of EUR 21,096, the economic output of the Azores was slightly less than that of mainland Portugal (EUR 22,776). In contrast, unemployment on the Azores was very low, at 6.9% in Q4/2023, although this does reflect a rise of 1.4 percentage points compared with Q4/2022. Overall, huge progress has been achieved on the labour market in recent years, following a record high of 18% unemployment in 2014. However, youth unemployment is still a problem: 35% of the unemployed are aged under 35. In total, 76% of those in employment work in the tertiary sector, with the largest share here (33% of total employment) attributable to the public sector. The secondary sector provides 15.5% of jobs, while the primary sector accounts for an above-average share of 8.1% in a European comparison. In addition to animal husbandry, the cultivation of pineapples and tea must be highlighted here: thanks to the warm climate throughout the year, Europe's only pineapple plantation and two of the three European tea plantations are located on the Azores. Volcanic origins lend the islands a unique landscape, which has increasingly become a magnet for tourists in recent years. The number of annual visitors has more than quadrupled since the beginning of the 2000s, peaking at almost 1.2m people in 2023. However, tourism collapsed by more than 75% in 2020 due to the COVID-19 pandemic, although in the following years the number of tourists increased significantly each year. The regional economy benefits from comparatively low taxes. Corporate profits are taxed at a standard rate of 14.7% (21% in mainland Portugal) and VAT on standard products is set at 16% (23% in mainland Portugal). The latter is therefore the second lowest within the EU.

Touristes per year (in mio.)



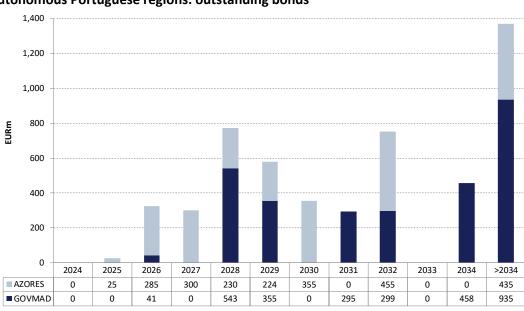
Source: OT Acores, SREA, NORD/LB Floor Research

Unemployment rate



^{*} Provisional data





Autonomous Portuguese regions: outstanding bonds

Source: Bloomberg, NORD/LB Floor Research

Outstanding volumes on the Portuguese sub-sovereign market

The Portuguese sub-sovereign market amounts to an outstanding volume of approximately EUR 5.2bn. The volumes are split between GOVMAD (EUR 2.9bn; 12 bonds) and AZORES (EUR 2.3bn; 11 bonds). We cannot find any evidence of foreign currency diversification. Accordingly, the FX segment plays no part in the composition of the liabilities, meaning that any diversification is provided solely in the form of different maturity segments. A total of around EUR 935m (32% of the outstanding volume) attributable to Madeira will not mature until after 2034, while the equivalent value for the Azores is EUR 435m (18.8%). The two largest bonds were both issued by GOVMAD (EUR 458m and EUR 455m), while the smallest bonds in each case are worth EUR 9.4m and EUR 16m respectively (both AZORES). Madeira was the last region to venture onto the primary market in May 2024, when it raised a total of EUR 175m with a term of 14 years. As at 28 May 2024, the spread on this bond came in at ms +75bp with a yield of around 3.6%. The rating (Baa+ / Ba1 / -) is largely responsible for this. This provides an initial indication of the spread for the segment under consideration here.

Fixed coupons dominant on Portugal's holiday islands

Fixed coupons account for the largest share of the outstanding bonds issued by the autonomous regions of Portugal. Of the bonds we have analysed (23), a total of 19 bonds featured a fixed coupon, while four are classified as "floating".

Autonomous regions yet to issue benchmarks

Given the lack of benchmark bonds, we have opted not to carry out any detailed analysis of spreads or a comparison with peers such as the German Laender, Belgian and Spanish regions or Canadian provinces. Moreover, the bonds are not listed in the iBoxx universe either, as this contains deals with outstanding bond volumes of EUR 1bn per ISIN. Nevertheless, GOVMAD and AZORES do offer a pick-up for investors, especially due to their ratings and their limited liquidity. Moreover, both issuers are likely to be open to private placements and certain expectations in terms of yield on the part of institutional investors.



Regulatory overview for RGLAs* / ** (Examples)

Issuer	Risk weighting	LCR classification	NSFR classification	Solvency II classification
Belgian regions	0%	Level 1	0%	preferred (0%)
German Laender	0%	Level 1	0%	preferred (0%)
French regions	0%	Level 1	0%	preferred (0%)
Italian regions	20%	Level 2A	15%	non-preferred (individual review)
Spanish regions	0%	Level 1	0%	preferred (0%)
Portuguese regions	20%	Level 2A	15%	professed (09/)
(Guaranteed bonds: Madeira)	(0%)	(Level 1)	(0%)	preferred (0%)

^{*} Regional governments and local authorities

Source: NORD/LB Floor Research

Exceptions to scope of application of the Leverage Ratio (CRD IV Art. 2 no. 5) (examples)

EU	Central banks of Member States
Germany	Kreditanstalt für Wiederaufbau (KfW), entities recognised under the "Wohnungsgemeinnützigkeitsgesetz" as bodies of State housing policy and are not mainly engaged in banking transactions, and undertakings recognised under that law as non-profit housing undertakings
France	Caisse des Dépôts et Consignations (CDC)
Italy	Cassa Depositi e Prestiti (CDP)
Spain	Instituto de Crédito Oficial (ICO)
Portugal	Caixas Económicas existing on 01 January 1986, with the exception of those incorporated as limited companies and Caixa Económica Montepio Geral

Source: CRD IV, NORD/LB Floor Research

Regional governments and local authorities (solvency stress factor allocation of 0% possible; examples)

Country	Regional and local governments
Belgium	Communities (Communautés/Gemeenschappen), regions (Régions/Gewesten), municipalities (Communes, Gemeenten) & provinces (Provinces, Provincies)
Germany	Laender, municipalities & municipal associations
France	Regions (région), municipalities (commune), "départements"
Spain	Autonomous regions (comunidades autónomas) and local government (corporación local)
Portugal	Autonomous regions the Azores and Madeira

Source: (EU) 2015/2011, NORD/LB Floor Research

Summary of Portuguese regions

Risk weighting 20% (state-guaranteed bonds of Madeira: 0%)

LCR classification Level 2A (state-guaranteed bonds of Madeira: Level 1)

NSFR classification 15% (state-guaranteed bonds of Madeira: 0%)

Solvency II classification Preferred (0%)

Source: NORD/LB Floor Research

Issuer (Ticker)	Number of inhabitants (2023)	Unemployment (2023)	Nom. GDP per capita (2022)	Outstanding volume	No. of bonds	Rating
GOVMAD	253,259	6.2%	EUR 23,675*	EUR 2.9bn	12	(BBB+ / Ba1 / -)
AZORES	239,942	6.9%	EUR 21,096*	EUR 2.3bn	11	(BBB / Ba1 / -)
Portugal	10,467,366	6.6%	EUR 22,776	EUR 181.6bn	37	(A- / A3 / A-)

^{*} Provisional data from 2022 (most recent available data)

Source: Bloomberg, SREA, Regional Directorate of Statistics of Madeira (DREM), Eurostat, NORD/LB Floor Research (Rating: Fitch / Moody's / S&P)

^{**} NB: in the absence of an explicit guarantee from the respective nation state, the current LCR level is dependent on the relevant rating (see CQS classification and LCR classification of assets).



Liability mechanism

The Portuguese government does not provide an explicit guarantee for the autonomous regions. However, in the event that Madeira or the Azores were to encounter payment difficulties, Moody's, for example, believes that it is highly likely that government support would be forthcoming (implicit guarantee). Although official support for Madeira from the national government ended in December 2015 upon completion of a cost-cutting plan for the region, financing is still exposed to the Portuguese treasury. The national government approves Madeira's new borrowing and has guaranteed the region's bond issues since 2017. The Portuguese government's guarantee associated with a 0% risk weight and a Level 1 classification under the LCR only applies to these bonds. Four of the currently outstanding bonds were issued prior to this date (exclusively floaters). However, a certain degree of caution would be advisable here when selecting investment opportunities.

ECB purchase programmes

With regard to the Eurosystem's purchasing activities under the Asset Purchase Programme (APP) and the Pandemic Emergency Purchase Programme (PEPP), it is striking that, regardless of the fact that there are currently no outstanding benchmark bonds, securities issued by both AZORES and GOVMAD have been purchased. As part of its purchase programmes, the Eurosystem has acquired nine ISINs from AZORES and four from GOVMAD through purchases by the Banco de Portugal (the Portuguese central bank) over time.

Conclusion

Even after the period of favourable financing conditions on the part of the ECB has come to an end, we are seeing increasing interest in investment opportunities in the niche markets which we refer to as "Beyond Bundeslaender". This report on mainland Portugal (politics and economy) and its autonomous regions (issuers) must also be interpreted in this light. The traditional SSA portfolio is being supplemented in terms of maturity and/or yield and is becoming increasingly diversified. The resilience of the Portuguese economy, which was built up in the wake of the sovereign debt crisis in 2014, reached a high point in 2023, when total revenues exceeded expenditure for the first time since 2013. The reduction in national debt is also testament to the country's economic and fiscal policy efforts. The autonomous regions of Madeira and the Azores, whose budgets have developed solidly, are also benefiting from this. The debt levels of both regions are well below 100% of nominal GDP, with the Azores' debt level of just under 60% of GDP standing out particularly positively. In our view, tourism, which is being promoted in equal measure with the modernisation of infrastructure, harbours additional growth potential in particular. The rating experts at Fitch and Moody's also rate both regions quite positively. For example, in comparison with their Spanish peers, the ratings are converging, which serves to underline once again the positive development of the regions even during the phase of high inflation. Nevertheless, the difference between explicit and implicit guarantees for the regions and/or individual bonds is key for investors. As a point of criticism, we believe that the autonomous regions could improve the quality of their investor relations presentations, particularly with regard to keeping information up to date.



Appendix Publication overview

Covered Bonds:

<u>Issuer Guide – Covered Bonds 2023</u>

Covered Bond Laws

Covered Bond Directive: Impact on risk weights and LCR levels

Risk weights and LCR levels of covered bonds (updated semi-annually)

<u>Transparency requirements §28 PfandBG Q2/2024</u> (quarterly update)

Transparency requirements §28 PfandBG Q2/2024 Sparkassen (quarterly update)

SSA/Public Issuers:

Issuer Guide - German Laender 2024

<u> Issuer Guide – German Agencies 2024</u>

<u>Issuer Guide – Canadian Provinces & Territories 2024</u>

<u>Issuer Guide – European Supranationals 2023</u>

Issuer Guide – French Agencies 2023

<u>Issuer Guide – Nordic Agencies 2024</u>

Issuer Guide - Dutch Agencies 2024

Issuer Guide - Non-European Supranationals (MDBs) 2024

Beyond Bundeslaender: Belgium

Beyond Bundeslaender: Greater Paris (IDF/VDP)

Beyond Bundeslaender: Spanish regions

Fixed Income Specials:

ESG-Update 2024

ECB decision: Cut, sleep, repeat



Appendix Contacts at NORD/LB

Floor Research



Dr Frederik KunzeCovered Bonds/Banks

+49 172 354 8977 frederik.kunze@nordlb.de



Lukas KühneCovered Bonds/Banks

+49 176 152 90932 lukas.kuehne@nordlb.de



Alexander Grenner
Covered Bonds/Banks

+49 157 851 65070 alexander.grenner@nordlb.de



Dr Norman Rudschuck, CIIA SSA/Public Issuers

+49 152 090 24094 norman.rudschuck@nordlb.de



Christian Ilchmann SSA/Public Issuers

+49 157 851 64976 christian.ilchmann@nordlb.de



Lukas-Finn Frese SSA/Public Issuers

+49 176 152 89759 lukas-finn.frese@nordlb.de

Sales

Institutional Sales	+49 511 9818-9440
Sales Sparkassen & Regionalbanken	+49 511 9818-9400
Institutional Sales MM/FX	+49 511 9818-9460
Fixed Income Relationship Management Europe	+352 452211-515

Trading

Covereds/SSA	+49 511 9818-8040
Financials	+49 511 9818-9490
Governments	+49 511 9818-9660
Länder/Regionen	+49 511 9818-9660
Frequent Issuers	+49 511 9818-9640

Origination & Syndicate

Origination FI	+49 511 9818-6600
Origination Corporates	+49 511 361-2911

Sales Wholesale Customers

Firmenkunden	+49 511 361-4003
Asset Finance	+49 511 361-8150

Treasury

+49 511 9818-9620 +49 511 9818-9650

Relationship Management

Institutionelle Kunden	rm-vs@nordlb.de
Öffentliche Kunden	rm-oek@nordlb.de



Disclaimer

The present report (hereinafter referred to as "information") was drawn up by NORDDEUTSCHE LANDESBANK GIROZENTRALE (NORD/LB). The supervisory authorities responsible for NORD/LB are the European Central Bank (ECB), Sonnemannstraße 20, D-60314 Frankfurt am Main, and the Federal Financial Supervisory Authority in Germany (Bundesanstalt für Finanzdienstleitungsaufsicht; BaFin), Graurheindorfer Str. 108, D-53117 Bonn and Marie-Curie-Str. 24-28, D-60439 Frankfurt am Main. The present report and the products and services described herein have not been reviewed or approved by the relevant supervisory authority.

The present information is addressed exclusively to Recipients in Austria, Belgium, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Indonesia, Ireland, Italy, Japan, Korea, Luxembourg, the Netherlands, New Zealand, Poland, Portugal, Singapore, Portugal, Spain, Sweden, Switzerland, the Republic of China (Taiwan), Thailand, the United Kingdom and Vietnam (hereinafter referred to as "Relevant Persons" or "Recipients"). The contents of the information are disclosed to the Recipients on a strictly confidential basis and, by accepting such information, the Recipients shall agree that they will not forward it to third parties, copy and/or reproduce this information without the prior written consent of NORD/LB. The present information is addressed solely to the Relevant Persons and any parties other than the Relevant Persons shall not rely on the information contained herein. In particular, neither this information nor any copy thereof shall be forwarded or transmitted to the United States of America or its territories or possessions, or distributed to any employees or affiliates of Recipients resident in these jurisdictions.

The present information does not constitute financial analysis within the meaning of Art. 36 (1) of the Delegate Regulation (EU) 2017/565, but rather represents a marketing communication for your general information within the meaning of Art. 36 (2) of this Regulation. Against this background, NORD/LB expressly points out that this information has not been prepared in accordance with legal provisions promoting the independence of investment research and is not subject to any prohibition of trading following the dissemination of investment research. Likewise, this information does not constitute an investment recommendation or investment strategy recommendation within the meaning of the Market Abuse Regulation (EU) No. 596/2014.

This report and the information contained herein have been compiled and are provided exclusively for information purposes. The present information is not intended as an investment incentive. It is provided for the Recipient's personal information, subject to the express understanding, which shall be acknowledged by the Recipient, that it does not constitute any direct or indirect offer, recommendation, solicitation to purchase, hold or sell or to subscribe for or acquire any securities or other financial instruments nor any measure by which financial instruments might be offered or sold.

All actual details, information and statements contained herein were derived from sources considered reliable by NORD/LB. For the preparation of this information, NORD/LB uses issuer-specific financial data providers, own estimates, company information and public media. However, since these sources are not verified independently, NORD/LB cannot give any assurance as to or assume responsibility for the accuracy and completeness of the information contained herein. The opinions and prognoses given herein on the basis of these sources constitute a non-binding evaluation of the employees of the Floor Research division of NORD/LB. Any changes in the underlying premises may have a material impact on the developments described herein. Neither NORD/LB nor its governing bodies or employees can give any assurances as to or assume any responsibility or liability for the accuracy, appropriateness and completeness of this information or for any loss of return, any indirect, consequential or other damage which may be suffered by persons relying on the information or any statements or opinions set forth in the present Report (irrespective of whether such losses are incurred due to any negligence on the part of these persons or otherwise).

Past performance is not a reliable indicator of future performance. Exchange rates, price fluctuations of the financial instruments and similar factors may have a negative impact on the value and price of and return on the financial instruments referred to herein or any instruments linked thereto. Fees and commissions apply in relation to securities (purchase, sell, custody), which reduce the return on investment. An evaluation made on the basis of the historical performance of any security does not necessarily provide an indication of its future performance.

The present information neither constitutes any investment, legal, accounting or tax advice nor any assurance that an investment or strategy is suitable or appropriate in the light of the Recipient's individual circumstances, and nothing in this information constitutes a personal recommendation to the Recipient thereof. The securities or other financial instruments referred to herein may not be suitable for the Recipient's personal investment strategies and objectives, financial situation or individual needs.

Moreover, the present report in whole or in part is not a sales or other prospectus. Accordingly, the information contained herein merely constitutes an overview and does not form the basis for any potential decision to buy or sell on the part of an investor. A full description of the details relating to the financial instruments or transactions which may relate to the subject matter of this report is given in the relevant (financing) documentation. To the extent that the financial instruments described herein are NORD/LB's own issues and subject to the requirement to publish a prospectus, the conditions of issue applicable to any individual financial instrument and the relevant prospectus published with respect thereto as well NORD/LB's relevant registration form, all of which are available for download at www.nordlb.de and may be obtained free of charge from NORD/LB, Georgsplatz 1, 30159 Hanover, shall be solely binding. Furthermore, any potential investment decision should be made exclusively on the basis of such (financing) documentation. The present information cannot replace personal advice. Before making an investment decision, each Recipient should consult an independent investment adviser for individual investment advice with respect to the appropriateness of an investment in financial instruments or investment strategies subject to this information as well as for other and more recent information on certain investment opportunities.

Each of the financial instruments referred to herein may involve substantial risks, including capital, interest, index, currency and credit risks in addition to political, fair value, commodity and market risks. The financial instruments could experience a sudden and substantial deterioration in value, including a total loss of the capital invested. Each transaction should only be entered into on the basis of the relevant investor's assessment of his or her individual financial situation as well as of the suitability and risks of the investment.



NORD/LB and its affiliated companies may participate in transactions involving the financial instruments described in the present information or their underlying basis values for their own account or for the account of third parties, may issue other financial instruments with the same or similar features as those of the financial instruments presented in this information and may conduct hedging transactions to hedge positions. These measures may affect the price of the financial instruments described in the present information.

If the financial instruments presented in this information are derivatives, they may, depending on their structure, have an initial negative market value from the customer's perspective at the time the transaction is concluded. NORD/LB further reserves the right to transfer its economic risk from a derivative concluded with it to a third party on the market by means of a mirror-image counter transaction.

More detailed information on any commission payments which may be included in the selling price can be found in the "Customer Information on Securities Business" brochure, which is available to download at www.nordlb.de.

The information contained in the present report replaces all previous versions of corresponding information and refers exclusively to the time of preparation of the information. Future versions of this information will replace this version. NORD/LB is under no obligation to update and/or regularly review the data contained in such information. No guarantee can therefore be given that the information is up-to-date and continues to be correct.

By making use of this information, the Recipient shall accept the terms and conditions outlined above.

NORD/LB is a member of the protection scheme of Deutsche Sparkassen-Finanzgruppe. Further information for the Recipient is indicated in clause 28 of the General Terms and Conditions of NORD/LB or at www.dsgv.de/sicherungssystem.

Additional information for Recipients in Australia:

NORD/LB IS NOT A BANK OR DEPOSIT TAKING INSTITUTION AUTHORISED UNDER THE 1959 BANKING ACT OF AUSTRALIA. IT IS NOT SUPERVISED BY THE AUSTRALIAN PRUDENTIAL REGULATION AUTHORITY. NORD/LB does not provide personal advice with this information and does not take into account the objectives, financial situation or needs of the Recipient (other than for the purpose of combating money laundering).

Additional information for Recipients in Austria:

None of the information contained herein constitutes a solicitation or offer by NORD/LB or its affiliates to buy or sell any securities, futures, options or other financial instruments or to participate in any other strategy. Only the published prospectus pursuant to the Austrian Capital Market Act should be the basis for any investment decision of the Recipient. For regulatory reasons, products mentioned herein may not be on offer in Austria and therefore not available to investors in Austria. Therefore, NORD/LB may not be able to sell or issue these products, nor shall it accept any request to sell or issue these products to investors located in Austria or to intermediaries acting on behalf of any such investors.

Additional information for Recipients in Belgium:

Evaluations of individual financial instruments on the basis of past performance are not necessarily indicative of future results. It should be noted that the reported figures relate to past years.

Additional information for Recipients in Canada:

This report has been prepared solely for information purposes in connection with the products it describes and should not, under any circumstances, be construed as a public offer or any other offer (direct or indirect) to buy or sell securities in any province or territory of Canada. No financial market authority or similar regulatory body in Canada has made any assessment of these securities or reviewed this information and any statement to the contrary constitutes an offence. Potential selling restrictions may be included in the prospectus or other documentation relating to the relevant product.

Additional information for Recipients in Cyprus:

This information constitutes an analysis within the meaning of the section on definitions of the Cyprus Directive D1444-2007-01 (No. 426/07). Furthermore, this information is provided for information and promotional purposes only and does not constitute an individual invitation or offer to sell, buy or subscribe to any investment product.

Additional information for Recipients in the Czech Republic:

There is no guarantee that the invested amount will be recouped. Past returns are no guarantee of future results. The value of the investments may rise or fall. The information contained herein is provided on a non-binding basis only and the author does not guarantee the accuracy of the content.

Additional information for Recipients in Denmark:

This Information does not constitute a prospectus under Danish securities law and consequently is not required to be, nor has been filed with or approved by the Danish Financial Supervisory Authority, as this Information either (i) has not been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market within the meaning of the Danish Securities Trading Act or any executive orders issued pursuant thereto, or (ii) has been prepared in the context of a public offering of securities in Denmark or the admission of securities to trading on a regulated market in reliance on one or more of the exemptions from the requirement to prepare and publish a prospectus in the Danish Securities Trading Act or any executive orders issued pursuant thereto.

Additional information for Recipients in Estonia:

It is advisable to closely examine all the terms and conditions of the services provided by NORD/LB. If necessary, Recipients of this information should consult an expert.

Additional information for Recipients in Finland:

The financial products described herein may not be offered or sold, directly or indirectly, to any resident of the Republic of Finland or in the Republic of Finland, except pursuant to applicable Finnish laws and regulations. Specifically, in the case of shares, such shares may not be offered or sold, directly or indirectly, to the public in the Republic of Finland as defined in the Finnish Securities Market Act (746/2012, as amended). The value of investments may go up or down. There is no guarantee of recouping the amount invested. Past performance is no guarantee of future results.



Additional information for Recipients in France:

NORD/LB is partially regulated by the "Autorité des Marchés Financiers" for the conduct of French business. Details concerning the extent of our regulation by the respective authorities are available from us on request. The present information does not constitute an analysis within the meaning of Article 24 (1) Directive 2006/73/EC, Article L.544-1 and R.621-30-1 of the French Monetary and Financial Code, but does represent a marketing communication and does qualify as a recommendation pursuant to Directive 2003/6/EC and Directive 2003/125/EC.

Additional information for Recipients in Greece:

The information contained herein gives the view of the author at the time of publication and may not be used by its Recipient without first having confirmed that it remains accurate and up to date at the time of its use. Past performance, simulations or forecasts are therefore not a reliable indicator of future results. Investment funds have no guaranteed performance and past returns do not guarantee future performance.

Additional information for Recipients in Indonesia:

This report contains generic information and has not been tailored to the circumstances of any individual or specific Recipient. This information is part of NORD/LB's marketing material.

Additional information for Recipients in the Republic of Ireland:

This information has not been prepared in accordance with Directive (EU) 2017/1129 (as amended) on prospectuses (the "Prospectus Directive") or any measures made under the Prospectus Directive or the laws of any Member State or EEA treaty adherent state that implement the Prospectus Directive or such measures and therefore may not contain all the information required for a document prepared in accordance with the Prospectus Directive or the laws.

Additional information for Recipients in Japan:

This information is provided to you for information purposes only and does not constitute an offer or solicitation of an offer to enter into securities transactions or commodity futures transactions. Although the actual data and information contained herein has been obtained from sources which we believe to be reliable and trustworthy, we are unable to vouch for the accuracy and completeness of this actual data and information.

Additional information for Recipients in South Korea:

This information has been provided to you free of charge for information purposes only. The information contained herein is factual and does not reflect any opinion or judgement of NORD/LB. The information contained herein should not be construed as an offer, marketing, solicitation to submit an offer or investment advice with respect to the financial investment products described herein.

Additional information for Recipients in Luxembourg:

Under no circumstances shall the present information constitute an offer to purchase or issue or the solicitation to submit an offer to buy or subscribe for financial instruments and financial services in Luxembourg.

Additional information for Recipients in New Zealand:

NORD/LB is not a bank registered in New Zealand. This information is for general information only. It does not take into account the Recipient's financial situation or objectives and is not a personalised financial advisory service under the 2008 Financial Advisers Act.

Additional information for Recipients in the Netherlands:

The value of your investment may fluctuate. Past performance is no guarantee for the future.

Additional information for Recipients in Poland:

This information does not constitute a recommendation within the meaning of the Regulation of the Polish Minister of Finance Regarding Information Constituting Recommendations Concerning Financial Instruments or Issuers thereof dated 19 October 2005.

Additional information for Recipients in Portugal:

This information is intended only for institutional clients and may not be (i) used by, (ii) copied by any means or (iii) distributed to any other kind of investor, in particular not to retail clients. The present information does not constitute or form part of an offer to buy or sell any of the securities covered by the report, nor should it be understood as a request to buy or sell securities where that practice may be deemed unlawful. The information contained herein is based on information obtained from sources which we believe to be reliable, but is not guaranteed as to accuracy or completeness. Unless otherwise stated, all views contained herein relate solely to our research and analysis and are subject to change without notice.

Additional information for Recipients in Sweden:

This information does not constitute (or form part of) a prospectus, offering memorandum, any other offer or solicitation to acquire, sell, subscribe for or otherwise trade in shares, subscription rights or other securities, nor shall it or any part of it form the basis of or be relied on in connection with any contract or commitment whatsoever. The present information has not been approved by any regulatory authority. Any offer of securities will only be made pursuant to an applicable prospectus exemption under the EC Prospectus Directive (Directive (EU) 2017/1129), and no offer of securities is being directed to any person or investor in any jurisdiction where such action is wholly or partially subject to legal restrictions or where such action would require additional prospectuses, other offer documentation, registrations or other actions.

Additional information for Recipients in Switzerland:

This information has not been approved by the Federal Banking Commission (merged into the Swiss Financial Market Supervisory Authority (FINMA) on 1 January 2009). NORD/LB will comply with the Directives of the Swiss Bankers Association on the Independence of Financial Research (as amended). The present information does not constitute an issuing prospectus pursuant to article 652a or article 1156 of the Swiss Code of Obligations. The information is published solely for the purpose of information on the products mentioned herein. The products do not qualify as units of a collective investment scheme pursuant to the Federal Act on Collective Investment Schemes (CISA) and are therefore not subject to supervision by FINMA.



Additional information for Recipients in the Republic of China (Taiwan):

This information is provided for general information only and does not take into account the individual interests or requirements, financial status and investment objectives of any specific investor. Nothing herein should be construed as a recommendation or advice for you to subscribe to a particular investment product. You should not rely solely on the information provided herein when making your investment decisions. When considering any investment, you should endeavour to make your own independent assessment and determination on whether the investment is suitable for your needs and seek your own professional financial and legal advice. NORD/LB has taken all reasonable care in producing this report and trusts that the information is reliable and suitable for your situation at the date of publication or delivery. However, no guarantee of accuracy or completeness is given. To the extent that NORD/LB has exercised the due care of a good administrator, we accept no responsibility for any errors, omissions, or misstatements in the information given. NORD/LB does not guarantee any investment results and does not guarantee that the strategies employed will improve investment performance or achieve your investment objectives.

Information for Recipients in the United Kingdom:

NORD/LB is subject to partial regulation by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA). Details of the scope of regulation by the FCA and the PRA are available from NORD/LB on request. The present information is "financial promotion". Recipients in the United Kingdom should contact the London office of NORD/LB, Investment Banking Department, telephone: 0044 / 2079725400, in the event of any queries. An investment in financial instruments referred to herein may expose the investor to a significant risk of losing all the capital invested.

Time of going to press: 10 September 2024 (09:18)

Distribution: 13.09.2024 11:11:09