



## NORD/LB Issuer Guide 2022 – Spanish Agencies

Markets Strategy & Floor Research

December 2022

Marketing communication (see disclaimer on the last pages)

# **NORD/LB**

## **ISSUER GUIDE 2022**

### **Spanish Agencies**

#### **List of authors**

Dr Norman Rudschuck, CIAA  
Floor analyst, SSA/Public Issuers  
Director  
[norman.rudschuck@nordlb.de](mailto:norman.rudschuck@nordlb.de)

Jan-Phillipp Hensing  
Floor analyst, SSA/Public Issuers  
Associate  
[jan-phillipp.hensing@nordlb.de](mailto:jan-phillipp.hensing@nordlb.de)

#### **Assisted by**

Benedikt Brockow and David Neudeck



## Contents

<b>The Spanish agency market – an overview</b>	<b>2</b>
Instituto de Crédito Oficial (ICO)	7
Fondo de Amortización del Déficit Eléctrico (FADE)	9
ADIF Alta Velocidad (ADIF-AV)	11
Corporación de Reservas Estratégicas de Productos Petrolíferos (CORES)	13
<b>Publication overview</b>	<b>15</b>
<b>Contacts at NORD/LB</b>	<b>16</b>

### Floor analysts:

#### Covered Bonds/Banks

Dr Frederik Kunze

[frederik.kunze@nordlb.de](mailto:frederik.kunze@nordlb.de)

Melanie Kiene, CIIA

[melanie.kiene@nordlb.de](mailto:melanie.kiene@nordlb.de)

Stefan Rahaus

[stefan.rahaus@nordlb.de](mailto:stefan.rahaus@nordlb.de)

#### SSA/Public Issuers

Dr Norman Rudschuck, CIIA

[norman.rudschuck@nordlb.de](mailto:norman.rudschuck@nordlb.de)

Jan-Phillipp Hensing

[jan-phillipp.hensing@nordlb.de](mailto:jan-phillipp.hensing@nordlb.de)

**NORD/LB:**

[Markets Strategy & Floor Research](#)

**NORD/LB:**

[Covered Bond Research](#)

**NORD/LB:**

[SSA/Public Issuer Research](#)

**Bloomberg:**

[RESP NRDR <GO>](#)

## The Spanish agency market – an overview

Authors: Dr Norman Rudschuck, CIAA // Jan-Phillipp Hensing

### Spanish agency market dominated by two large issuers

As at year-end 2022, the four Spanish agencies profiled in this publication have an outstanding bond volume of EUR 20.6bn spread across 54 separate bond deals in total. In a European comparison, the Spanish agency market can therefore be described as relatively small. Despite the little number of agencies, the market is also quite diverse in nature: alongside the promotional bank ICO, there is also a securitisation vehicle, a rail network operator in addition to an institution responsible for administering Spain's strategic oil reserves. In the following, we shall be looking in greater detail at Fondo de Amortización del Déficit Eléctrico (FADE), which was founded in 2010 with the aim of securitising claims, or tariff deficit receivables, on the part of Spanish electricity providers against the government. Owing to the regulatory framework conditions, these electricity providers had generated losses, which were to be offset by the government. The purpose of FADE is to ensure that the deficits incurred by the electricity providers are offset more rapidly. The sale of tariff deficit receivables from the utility companies to FADE has since led to the issuance of bonds, some of which have been in benchmark format, temporarily producing a significant increase in the annual number of EUR benchmark deals on the Spanish agency market in the process. The second biggest agency measured in terms of total assets and volume of bonds outstanding is Instituto de Crédito Oficial (ICO), the Spanish promotional bank. The importance of ICO increased during the Spanish banking crisis in particular, as many financial institutions reduced their lending activities, in some cases significantly so, on account of recapitalisation and restructuring processes. The importance of the promotional bank also increased because market access became more difficult for the Spanish regions. The third agency included in this Issuer Guide is Corporación de Reservas Estratégicas de Productos Petrolíferos (CORES), which is responsible for administering Spain's strategic oil reserves in its role as a stockholding entity. Founded in 2013, ADIF Alta Velocidad (ADIF-AV) is the largest Spanish agency as measured by total assets. ADIF-AV is tasked with operating Spain's high-speed railway network. Since 2015, it has been using the capital market, among other sources, in connection with its refinancing activities. In comparison with other jurisdictions, attention must always be paid to ratings in the case of Spanish agencies, which are often lower than is the case, for example, for other issuers from Germany, France, the Netherlands and even Austria. Since they only have a small volume of outstanding bonds, Instituto Valenciano de Finanzas (IVF) and Instituto Catalán de Finanzas (ICF) are not included in this Issuer Guide. Fondo de Reestructuración Ordenada Bancaria (FROB) is also no longer part of our coverage, as this agency has been responsible for distributing ESM funding since the end of 2012 and is therefore no longer active on the primary market.

### Spanish agencies – an overview

Institution	Type	Owner(s)	Guarantee	Risk weight
Instituto de Crédito Oficial (ICO)	Promotional bank	100% Spain	Explicit guarantee and EPE status	0%
Fondo de Amortización del Déficit Eléctrico (FADE)	Securitisation vehicle	-	Explicit guarantee for all bonds	0%
ADIF Alta Velocidad (ADIF-AV)	Rail network operator	100% Spain	EPE status	0%*
Corporación de Reservas Estratégicas de Productos Petrolíferos (CORES)	Administrator of strategic oil reserves	-	-	50%

\* see below

Source: Issuers, NORD/LB Markets Strategy & Floor Research

### Explicit guarantees result in risk weighting of 0%

ICO and FADE have explicit guarantees from the Spanish state. As such, a risk weighting of 0% is possible according to the standard approach of CRR/Basel III.

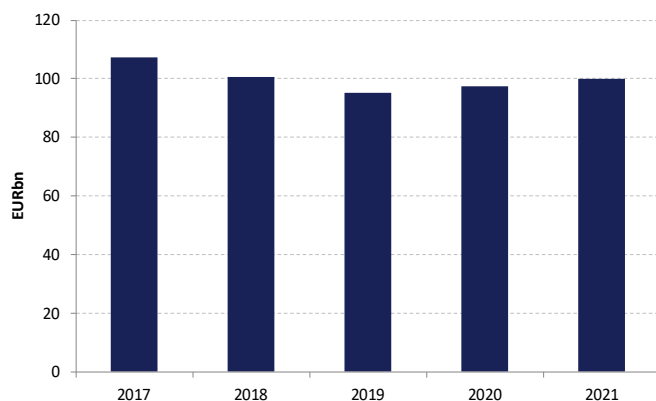
### Implicit liability due to EPE status with exception of CORES (RW 50%) and ICO

In Spain, the legal status of Entidad Pública Empresarial (EPE; public law institution) exists as a special form of liability mechanism. ICO and the ADIF-AV operate under this legal status, which implies a strong dependence on the central government. EPEs are exempt from insolvency law and can only be liquidated through legislation. If liquidation occurs, the remaining assets and liabilities are transferred to the state or another institution with a comparable legal status. According to our understanding, there consequently exists an implicit guarantee for ADIF-AV, but this is weaker than, for example, the comparable liability mechanisms of the French *établissement public* (EP) status or the German *Gewährträgerhaftung* (guarantor liability). Conversely, in the case of ICO, the statutes stipulate direct liability on the part of the Spanish state in addition to EPE status. However, in view of the absence of a liability mechanism, a 0% risk weighting is not possible in the case of CORES. Under the standard approach of CRR/Basel III, the applicable risk weighting is derived from the rating and amounts to 50% at present.

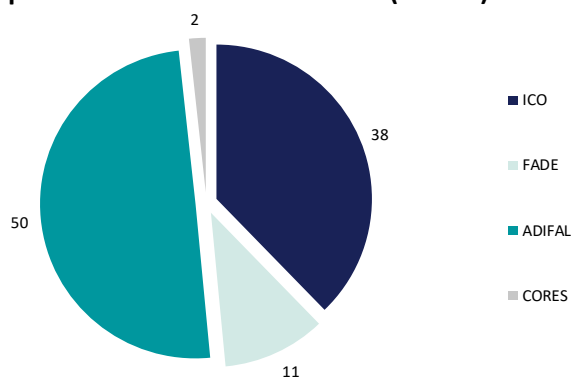
### Special case: ADIF-AV

Another special case is that of ADIF-AV. A risk weighting of 0% applies for ADIF-AV, even without a corresponding liability mechanism having been put in place. Based on this circumstance, ADIF-AV bonds also qualify as Level 1 assets under the LCR. In addition, ADIF-AV benefits from an implicit guarantee from the Spanish government due to its status as a government-related issuer.

### Balance sheet growth of Spanish agencies



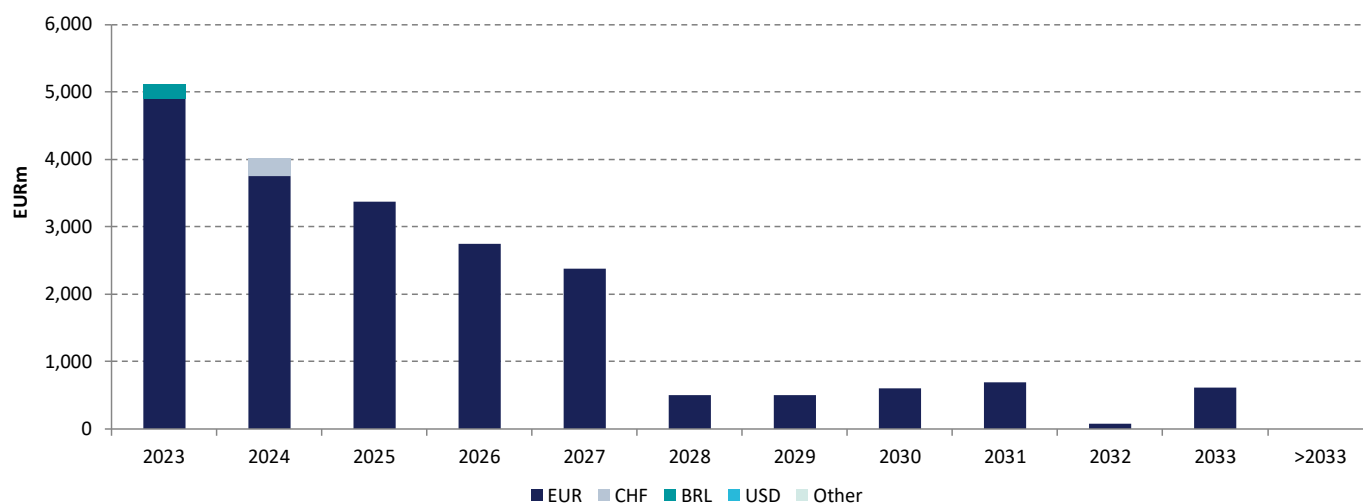
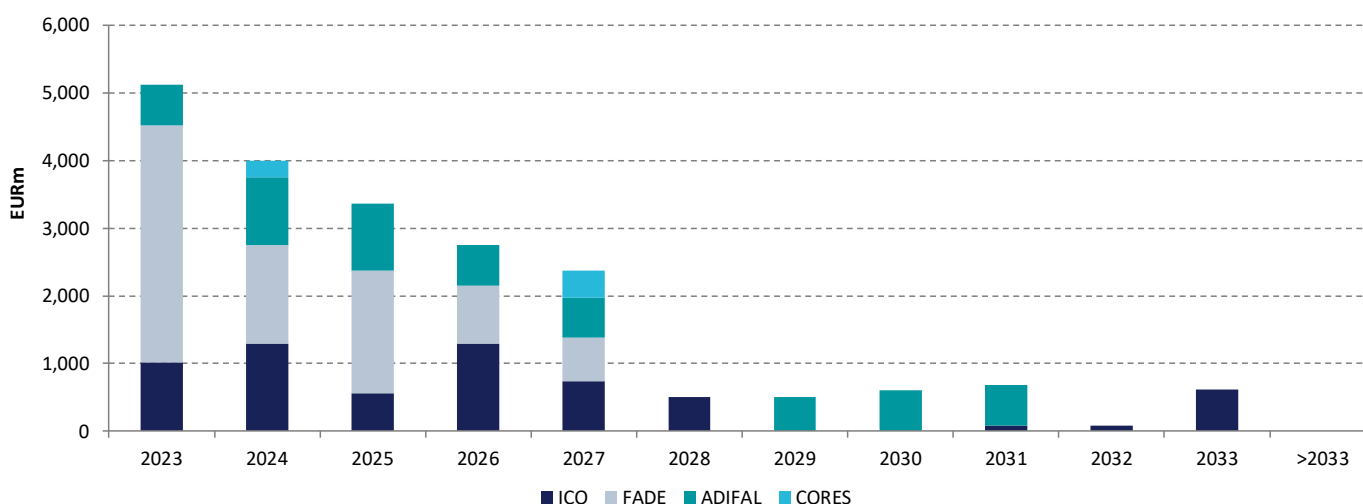
### Comparison of balance sheet totals (EURbn)



Source: Issuers, NORD/LB Markets Strategy & Floor Research

### Marginal increase in aggregated balance sheet total following steady decline

The aggregated total assets of the four Spanish agencies included in this Issuer Guide declined steadily since 2013. The Spanish promotional bank ICO is primarily responsible for this decline. While the balance sheet total of ICO stood at EUR 84.0bn in 2014, this figure steadily declined to stand at a value of EUR 31.8bn in 2019. In 2020 and 2021, ICO reversed this long-standing trend to record balance sheet growth of EUR +2.6bn and EUR +3.4bn respectively. This development had a positive effect on the aggregated balance sheet total of all issuers, which rose by EUR +2.6bn in 2021 to stand at EUR 100.1bn overall. Of the agencies included in this Issuer Guide, balance sheet growth (EUR +1.9bn) was also observed at ADIFAL. In contrast, total assets at FADE declined by EUR -2.5bn year on year.

**Spanish agencies: outstanding bonds by currency****Spanish agencies: outstanding bonds by issuer**

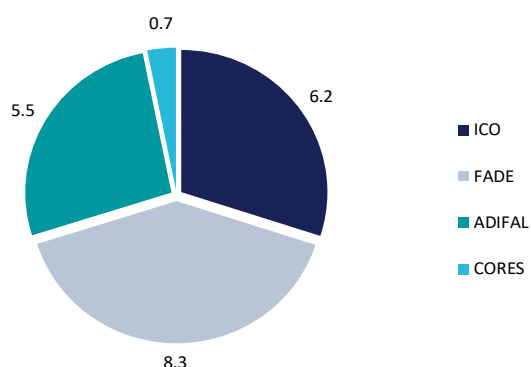
NB: Foreign currencies are converted into EUR at rates as at 29 December 2022.

Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

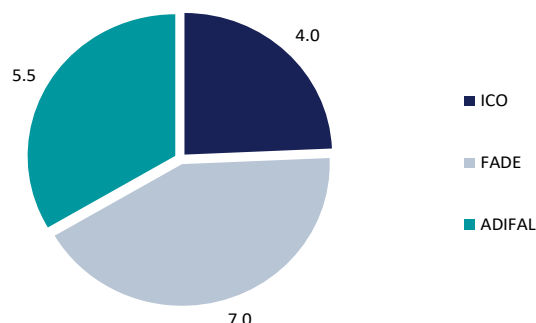
**Supply mainly denominated in EUR at the short end**

The Spanish agency market has a certain supply of EUR bonds, particularly in the maturity range up to 2027, which accounts for a significant number of the bonds placed in benchmark format. Only around 2.3% of the outstanding volume relates to four bonds denominated in two foreign currencies (all ICO). At present, a total of 23 EUR-denominated benchmark bonds are outstanding.

## Outstanding bond volumes (EURbn)



## Outstanding EUR benchmarks (EURbn)



NB: Benchmarks are defined as bonds with a minimum volume of EUR 0.5bn.  
Foreign currencies are converted into EUR at rates as at 29 December 2022.  
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

## Spanish agencies – an overview (EURbn/EUR equivalent)

Name	Ticker	Rating (Fitch/Moody's/S&P)	Outstanding Volume	EUR volume	Funding target 2023	Maturities 2023	Net Supply 2023	Number of ESG bonds	ESG volume
ICO	ICO	A-/Baa1/A	6.2	5.7	5.0	1.0	4.0	8	4.0
FADE	FADE	-/-/-	8.3	8.3	1.0	3.5	-2.5	0	0.0
ADIF-AV	ADIFAL	A-/Baa2/-	5.5	5.5	0.6	0.6	0.0	6	3.5
CORES	CORES	A-/-/A	0.7	0.7	0.5	0.0	0.5	0	0.0
<b>Total</b>			<b>20.6</b>	<b>20.1</b>	<b>20.6</b>	<b>20.1</b>	<b>7.1</b>	<b>5.1</b>	<b>2</b>

NB: Fitch, Moody's and S&P rate FADE's bonds on a par with Spain's credit rating; FADE is not assigned an issuer rating.

Foreign currencies are converted into EUR at rates as at 29 December 2022.

On account of the issuer's individual funding mix, the values for "funding target" and "net supply" in particular may deviate from reality.

Source: Bloomberg, issuers, NORD/LB Markets Strategy & Floor Research

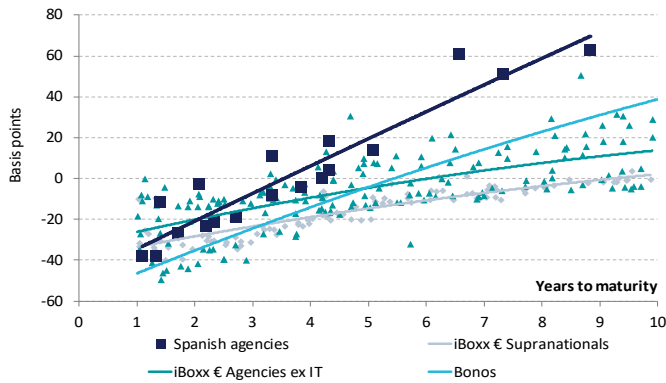
## Comment

Although fresh supply has been declining for a number of years, the Spanish agency market continues to rank among the active SSA segments within Europe, albeit one that is on the smaller side. We assume that fresh supply will stabilise at lower levels in the coming years, whereby ICO is likely to continue to account for the lion's share of the funding requirement.

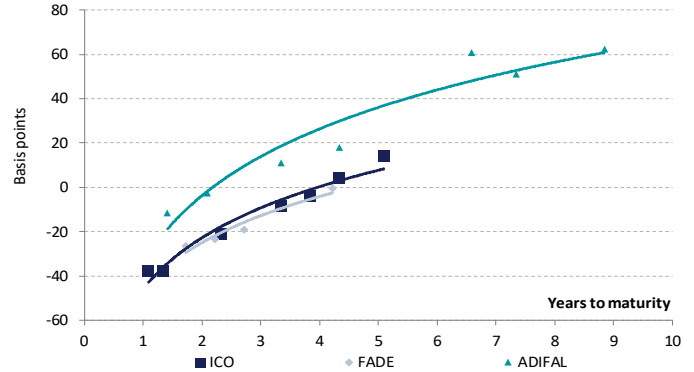


## Spain A comparison of spreads

Spanish agencies vs. iBoxx € indices and Bonos



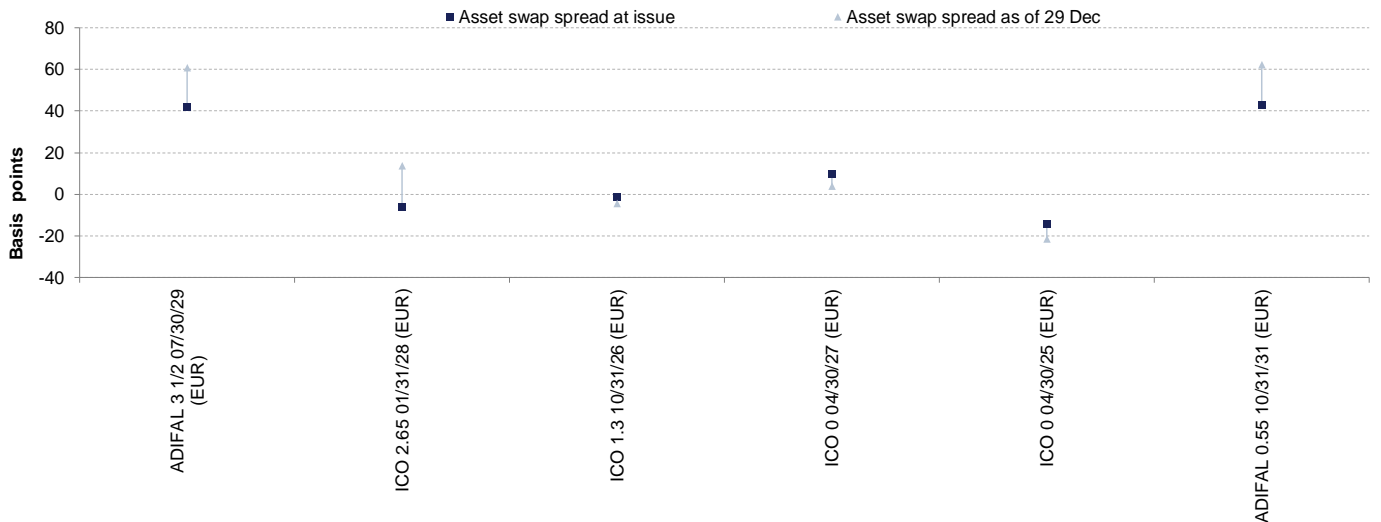
Spanish agencies – a comparison



Residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.  
Source: Bloomberg, Markit, NORD/LB Markets Strategy & Floor Research

## Spain Primary market activities – an overview

Development of benchmark issues 2021/22 (fixed coupon)



NB: Benchmarks are defined as bonds with a minimum volume of EUR 0.5bn or USD 1.0bn.  
Source: Bloomberg, NORD/LB Markets Strategy & Floor Research

### Reduction in primary market activities brought to a halt

After a brief high in 2011, issuance volumes plummeted until 2018. Issuance volumes have stood at a comparable level for more than four years now (gross supply of roughly EUR 2-3bn per year). FADE will continue to refinance existing bonds via new issuances, meaning that the net supply of bonds will amount to a maximum of 0. In the meantime, ICO also reported declining primary market supply. Nevertheless, its primary market activities have since picked up pace again due to an abundance of maturing bonds and the pandemic. Supply from CORES is relatively marginal when compared with the other issuers, a situation reflected in the fact that this issuer currently has no EUR benchmark bonds outstanding. However, the fact that ADIF-AV has established itself on the primary market looks set to have a stabilising effect moving forwards. The supply of ESG bonds has also seen steady growth over recent years.



**Instituto de Crédito Oficial**

**Instituto de Crédito Oficial (ICO)**

Founded in 1971, Instituto de Crédito Oficial (ICO) was initially the central institute for state-owned banks at that time. In 1991, the remit of ICO was significantly altered with the decision to privatise the state-owned credit sector. Today, ICO functions as a national promotional bank and state finance agency. In addition, the agency is a key instrument in the implementation of Spanish economic and financial policies. Within this framework, ICO pursues four main goals based on the “ICO Group Strategy 2022-2027”: first, ICO seeks to promote corporate growth, competitiveness and the resilience of the Spanish economy. In this context, the focus is on financing investments by small and medium-sized enterprises (SMEs) and advancing the internationalisation of such firms. Furthermore, ICO is supporting the digital transformation, while ESG topics are additionally afforded high strategic priority. To this end, companies are supported in their transition towards achieving greater social and ecological sustainability. Last but not least, ICO is seeking to strengthen its governance and digital processes. In this context, ICO awards promotional loans, which are ultimately processed and managed by the respective end client’s house bank (house bank principle), among other measures. The importance of sustainability issues for the agency is reflected, among other aspects, in the issuance of a range of social bonds since 2015, with green bonds supplementing the funding mix since 2019. As a state promotional bank, ICO played a key role in mitigating the economic consequences of the COVID-19 pandemic. The promotional bank also provides equity and mezzanine capital via its subsidiary Axis, Spain’s first venture capital fund, which was founded in 1986. The Spanish state is the sole owner of ICO, which operates in the legal form of an Entidad Pública Empresarial (EPE), a type of public law institution. The Royal Decree 706/1999 stipulates that an explicit guarantee will be provided by the Kingdom of Spain for all of ICO’s liabilities, which accordingly offers the agency regulatory advantages.

**General information**

- [Homepage](#)
- [Investor Relations](#)

**Owner(s)**

100% Spain

**Guarantor(s)**

Spain

**Liability mechanism**

Explicit guarantee and EPE status

**Legal form**

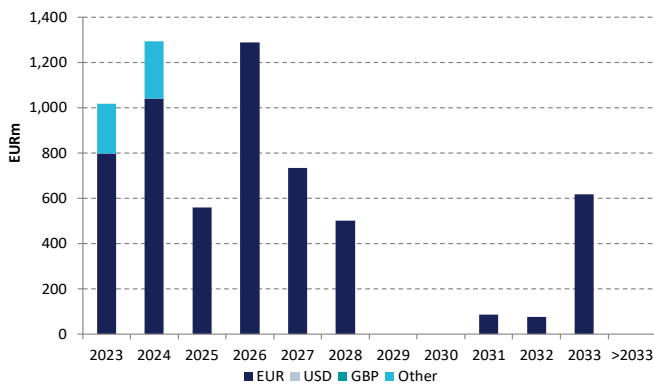
Entidad Pública Empresarial (EPE)

**Bloomberg ticker**

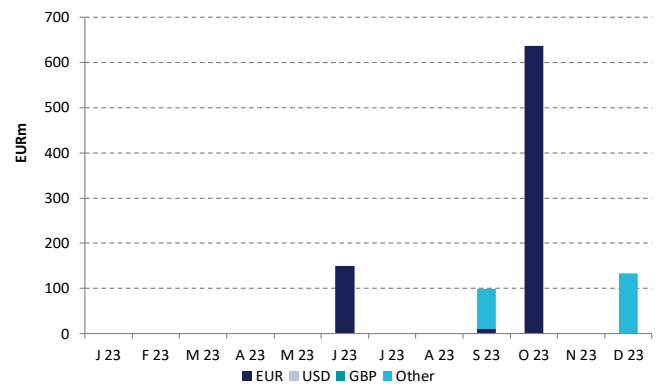
ICO

Ratings	Long-term	Outlook
Fitch	A-	stab
Moody's	Baa1	stab
S&P	A	stab

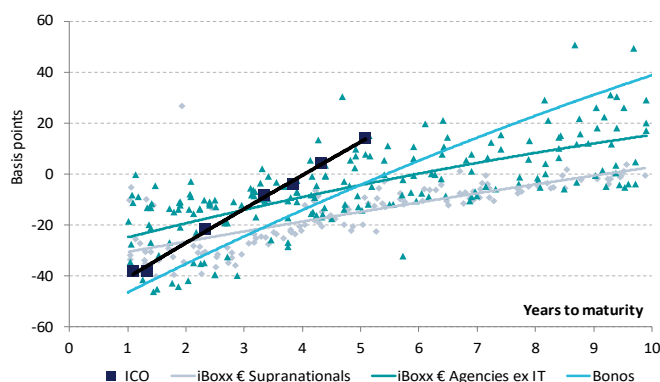
**Bonds by currency**



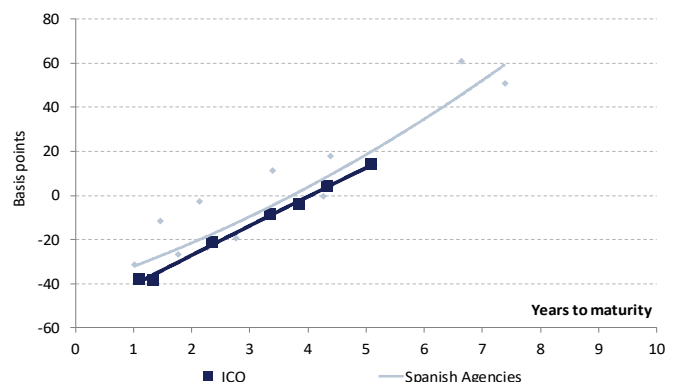
**Bond amounts maturing in the next 12 months**



**ICO vs. iBoxx € indices and bonos**



**ICO vs. Spanish agencies**



NB: Foreign currencies are converted into EUR at rates as at 29 December 2022; Residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn. Source: Bloomberg, Markit, NORD/LB Markets Strategy & Floor Research

**Regulatory details**

Risk weighting according to CRR/Basel III (standard approach)

0%

Liquidity category according to Liquidity Coverage Ratio (LCR)

Level 1

Haircut category according to ECB repo rules

IV

Leverage ratio/BRRD

Does not apply

**Relative value**

Attractiveness vs. Spain (G-spread; bp)\*

Minimum	Median	Maximum
11	16	27

Attractiveness vs. Mid-Swap (ASW-spread; in bp)\*

Minimum	Median	Maximum
-38	-9	14

Index weighting

iBoxx € Sub-Sovereigns	iBoxx € Agencies
0.0%	0.0%

**Funding & ESG** (EURbn/EUR equivalent)

Target 2023

5.0

Maturities 2023

1.0

Net Supply 2023

4.0

Funding instruments

Benchmarks, ESG bonds, other public bonds, private placements and commercial paper

Central bank access

ECB

No. of ESG bonds

8

ESG volume

4.0

**Outstanding volume** (EURbn/EUR equivalent)

Total

6.2

of which in EUR

5.7

No. of EUR benchmarks\*\*

8

of which in USD

0.0

No. of USD benchmarks\*\*

0

of which in other currencies

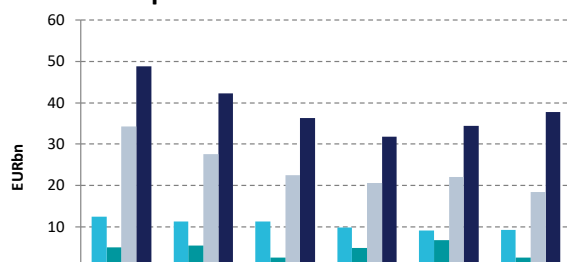
0.5

\* Residual term to maturity &gt;1 year and &lt;10 years; outstanding volume at least EUR 0.5bn.

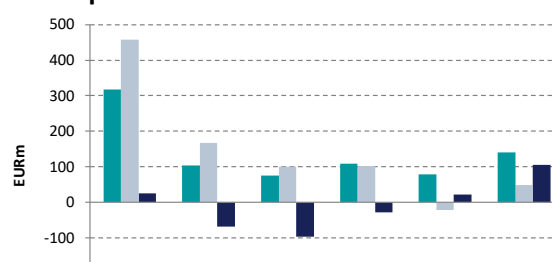
\*\* Bonds with a minimum volume of EUR 0.5bn or USD 1.0bn. Foreign currencies converted into EUR at rates as at 29 December 2022.

On account of the issuer's individual funding mix, the values for "funding target" and "net supply" in particular may deviate from reality.

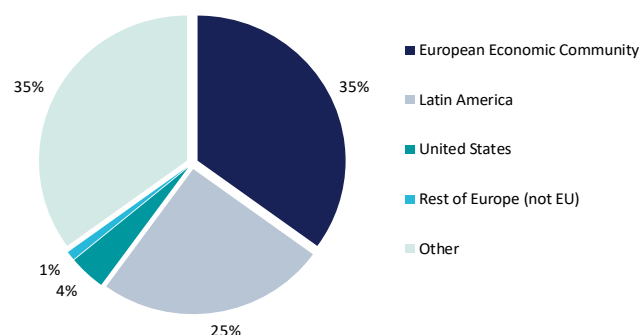
Source: Bloomberg, issuer, NORD/LB Markets Strategy &amp; Floor Research

**Balance sheet development**

	2016	2017	2018	2019	2020	2021
Total assets	48.9	42.2	36.3	31.8	34.4	37.8
Loans and receivables	34.2	27.5	22.5	20.6	22.0	18.4
New commitments	5.0	5.4	2.5	4.8	6.8	2.5
Investment portfolio	12.4	11.3	11.3	9.7	9.0	9.2

**Earnings development**

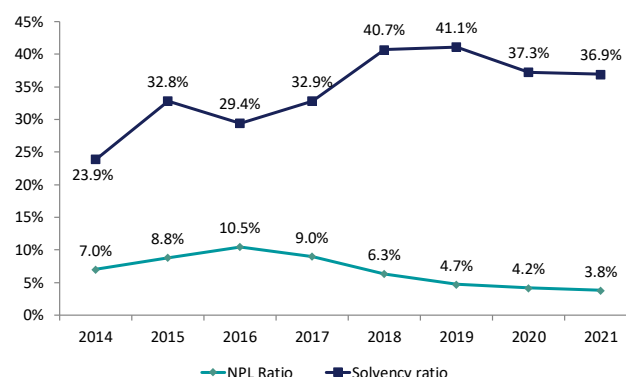
	2016	2017	2018	2019	2020	2021
Net interest income	25.6	-69.1	-96.5	-28.1	21.8	104.6
Impairment losses and allowances	457.9	166.4	99.7	101.8	-22.2	48.4
Net income	317.0	103.1	75.7	109.4	79.1	139.9

**Breakdown of financial assets by location**

Source: Issuer, NORD/LB Markets Strategy &amp; Floor Research

**Strengths**

- + Explicit guarantee
- + Very high importance for the Spanish state

**Development of NPL and Solvency Ratio****Weaknesses**

- Low profitability
- Certain degree of strain on the lending portfolio due to NPLs



## Fondo de Amortización del Déficit Eléctrico (FADE)

The purpose of Fondo de Amortización del Déficit Eléctrico (FADE), which was founded in 2010, is to amortise the deficits incurred by Spanish electricity suppliers between 2000 and 2013. The deficits were incurred because regulations implemented by the Spanish government kept final electricity prices at an artificially low level until 2009. While the electricity suppliers had to pay market prices to procure energy, their end customers were paying a much lower price. To offset the deficits resulting from this situation, the electricity suppliers receive compensation payments from the government, including interest, within a time frame of 8-15 years. It is ultimately the Spanish consumer that ends up footing the bill for these compensation payments in the form of grid charges. In order to facilitate a more rapid deficit equalisation on the part of the electricity providers, they are permitted to sell on compensation claims to FADE, which in turn receives the compensation payments. FADE issues ABS that are secured directly by the compensation claims in order to finance these transfers. The state energy board, Comisión Nacional de Energía (CNE), is responsible for collecting the compensation payments. This makes the tariff deficit loans that FADE acquired up to 2013 its most important financial assets. The energy providers were able to refinance the deficits via FADE within the space of five years. To this end, FADE is authorised to issue bonds to refinance existing bonds until 2031. To solidify FADE's liquidity position, the fund has a credit line with ICO (Instituto de Crédito Oficial; see previous pages) amounting to EUR 2.0bn. Due to the fact that FADE does not have its own legal form, the fund is managed by Titulización de Activos Sociedad Anónima (TdA S.A.), a service provider focused on securitisations. In addition, it should be noted that FADE has no owner. Instead, the Spanish state explicitly guarantees the bonds issued by FADE up to a volume of EUR 26.0bn.

### General information

[Homepage](#)

### Owner(s)

-

### Guarantor(s)

Spain

### Liability mechanism

Explicit guarantee

### Legal form

-

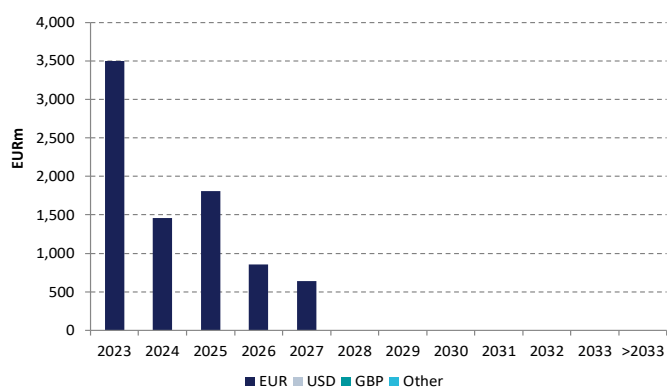
### Bloomberg ticker

FADE

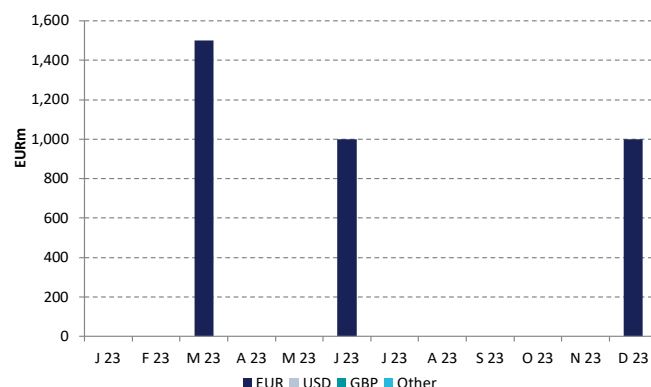
### Ratings

	Long-term	Outlook
Fitch	-	-
Moody's	-	-
S&P	-	-

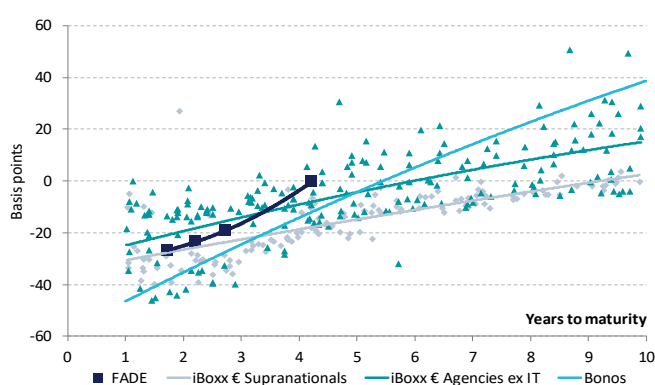
### Bonds by currency



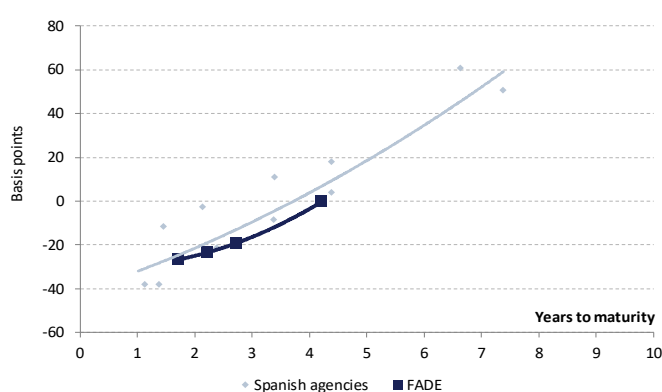
### Bond amounts maturing in the next 12 months



### FADE vs. iBoxx € indices and bonos



### FADE vs. Spanish agencies



NB: Foreign currencies are converted into EUR at rates as at 29 December 2022; Residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn. Source: Bloomberg, Markit, NORD/LB Markets Strategy & Floor Research

## Regulatory details

Risk weighting according to CRR/Basel III (standard approach)

0%

Liquidity category according to Liquidity Coverage Ratio (LCR)

Level 1

Haircut category according to ECB repo rules

II

Leverage ratio/BRRD

Does not apply

## Relative value

Attractiveness vs. Spain (G-spread; bp)\*

Minimum	Median	Maximum
8	13	17

Attractiveness vs. Mid-Swap (ASW-spread; in bp)\*

Minimum	Median	Maximum
-27	-21	0

Index weighting

iBoxx € Sub-Sovereigns	iBoxx € Agencies
0.2%	0.6%

## Funding &amp; ESG (EURbn/EUR equivalent)

Target 2023	Maturities 2023	Net Supply 2023	Funding instruments	Central bank access	No. of ESG bonds	ESG volume
1.0	3.5	-2.5	Benchmark issues, other public bonds and private placements	-	0	0.0

## Outstanding volume (EURbn/EUR equivalent)

Total	of which in EUR	No. of EUR benchmarks**	of which in USD	No. of USD benchmarks**	of which in other currencies
8.3	8.3	7	0.0	0	0.0

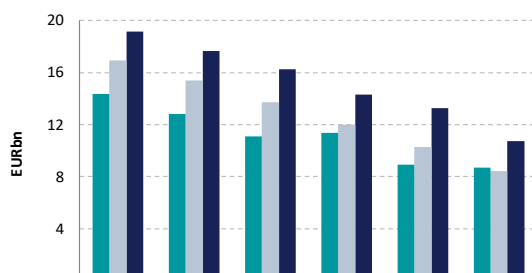
\* Residual term to maturity &gt;1 year and &lt;10 years; outstanding volume at least EUR 0.5bn.

\*\* Bonds with a minimum volume of EUR 0.5bn or USD 1.0bn. Foreign currencies converted into EUR at rates as at 29 December 2022.

On account of the issuer's individual funding mix, the values for "funding target" and "net supply" in particular may deviate from reality.

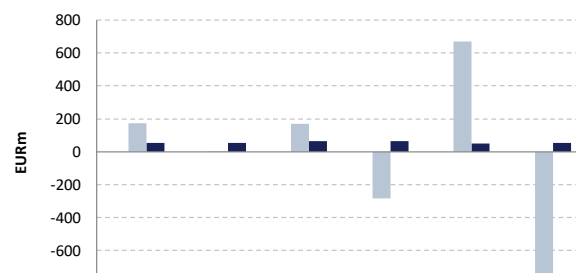
Source: Bloomberg, issuer, NORD/LB Markets Strategy &amp; Floor Research

## Balance sheet development



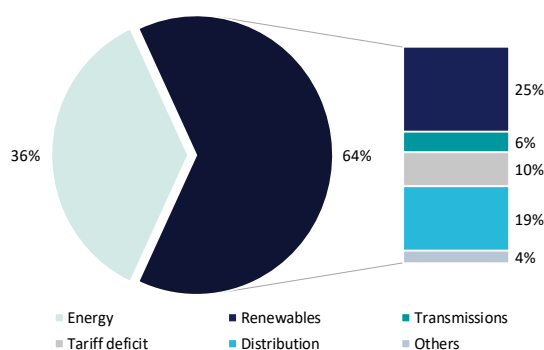
	2016	2017	2018	2019	2020	2021
Total assets	19.1	17.7	16.2	14.3	13.3	10.7
Tariff deficit receivables	16.9	15.4	13.7	12.0	10.3	8.4
Net debt	14.4	12.8	11.1	11.4	8.9	8.7

## Earnings development



	2016	2017	2018	2019	2020	2021
Net interest income	52.6	54.3	63.8	63.3	49.2	54.8
Cash flow	173.0	0.6	168.2	-282.5	668.7	-749.0
Net income	0.0	0.0	0.0	0.0	0.0	0.0

## Composition of energy prices for end consumers



Source: Issuer, NORD/LB Markets Strategy &amp; Floor Research

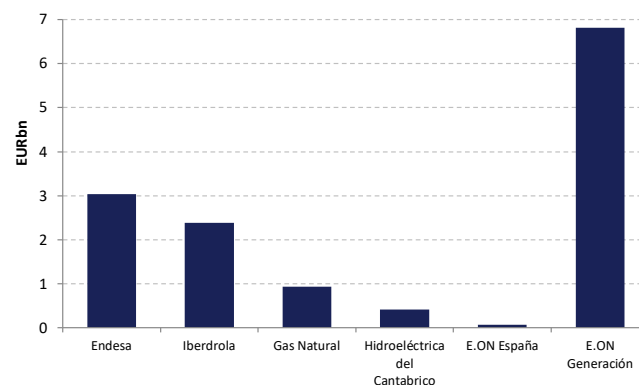
## Strengths

- + Explicit guarantee
- + Revenues from charges paid by Spanish consumers

## Weaknesses

- Dependent on economic development
- Potential restriction of investor base through ABS classification

## Transferred deficit compensation payments by original holder (as at November 2012)





### ADIF Alta Velocidad (ADIF-AV)

ADIF Alta Velocidad (ADIF-AV) was created on 31 December 2013 after being hived off from Administrador de Infraestructuras Ferroviarias (ADIF), the state-owned operator of Spain’s rail network. Since then, ADIF-AV has been responsible for the construction and operation of the high-speed rail network in Spain, with ADIF in charge of running the rest of the rail network. The aim of the split was to achieve maximum efficiency, guarantee budget stability and promote the sustainable development of the rail network. As part of the spin-off, ADIF-AV assumed 95% of the debts incurred by the predecessor institution (around EUR 11.6bn). Overall, the high-speed rail network operated by ADIF-AV is 2,781 kilometres in length and encompasses a total of 45 stations. ADIF-AV is wholly owned by the Spanish government. Moreover, the agency operates under the legal status of an Entidad Pública Empresarial (EPE; public law institution), which means that ADIF-AV is highly dependent on the central government. As a result, ADIF-AV is exempt from insolvency law and can only be liquidated through legislation. If liquidation occurs, the remaining assets and liabilities are transferred to the state or another institution with a comparable legal status. ADIF-AV is obliged to operate in line with an economically sustainable approach. It derives its financial resources by charging for use of the rail network, through state grants and EU subsidies, in addition to raising external capital. The state budget caps the borrowing authorisation of ADIF-AV on an annual basis. In our view, in spite of the absence of a liability mechanism, a very high probability of support can be assumed in the case of ADIF-AV. Even though the Spanish state has not provided any explicit guarantee, ADIF-AV has a 0% risk weighting according to CRR/Basel III. Sustainability is of major importance to ADIF-AV, which is reflected in that fact that the high-speed rail network operator has issued six green bonds since 2017, with the last such deal being placed in October 2022 in the amount of EUR 500m.

#### General information

- [Homepage](#)
- [Investor Relations](#)

**Owner(s)**  
100% Spain

**Guarantor(s)**  
-

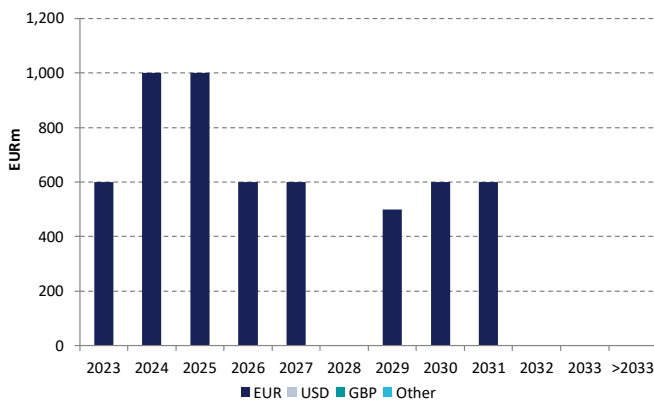
**Liability mechanism**  
EPE status

**Legal form**  
Entidad Pública Empresarial (EPE)

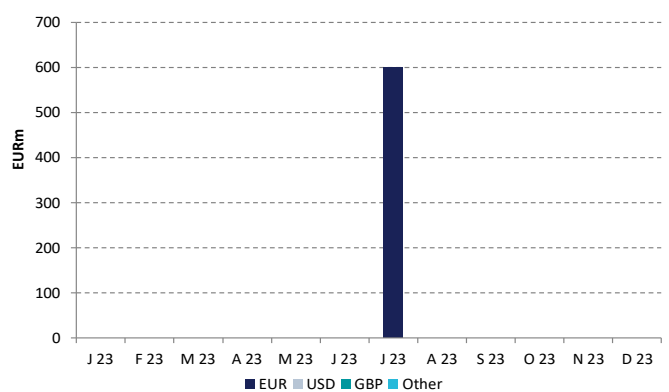
**Bloomberg ticker**  
ADIFAL

Ratings	Long-term	Outlook
<b>Fitch</b>	A-	stab
<b>Moody's</b>	Baa2	stab
<b>S&amp;P</b>	-	-

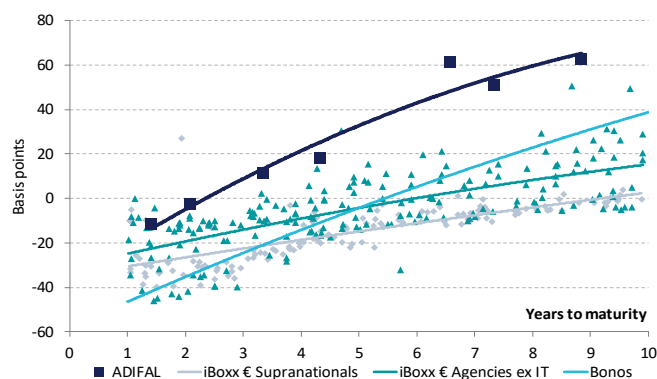
#### Bonds by currency



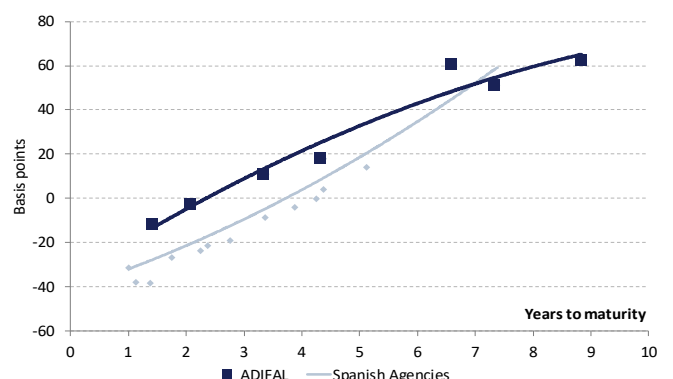
#### Bond amounts maturing in the next 12 months



#### ADIFAL vs. iBoxx € indices and bonos



#### ADIFAL vs. Spanish agencies



NB: Foreign currencies are converted into EUR at rates as at 29 December 2022; Residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn. Source: Bloomberg, Markit, NORD/LB Markets Strategy & Floor Research

## Regulatory details

Risk weighting according to CRR/Basel III (standard approach)	Liquidity category according to Liquidity Coverage Ratio (LCR)	Haircut category according to ECB repo rules	Leverage ratio/BRRD
0%	Level 1	III	Does not apply

## Relative value

Attractiveness vs. Spain (G-spread; bp)*			Attractiveness vs. Mid-Swap (ASW-spread; in bp)*			Index weighting	
Minimum	Median	Maximum	Minimum	Median	Maximum	iBoxx € Sub-Sovereigns	iBoxx € Agencies
30	37	56	-12	18	63	0.1%	0.4%

## Funding &amp; ESG (EURbn/EUR equivalent)

Target 2023	Maturities 2023	Net Supply 2023	Funding instruments	Central bank access	No. of ESG bonds	ESG volume
0.6	0.6	0.0	Benchmarks, ESG bonds	-	6	3.5

## Outstanding volume (EURbn/EUR equivalent)

Total	of which in EUR	No. of EUR benchmarks**	of which in USD	No. of USD benchmarks**	of which in other currencies
5.5	5.5	8	0.0	0	0.0

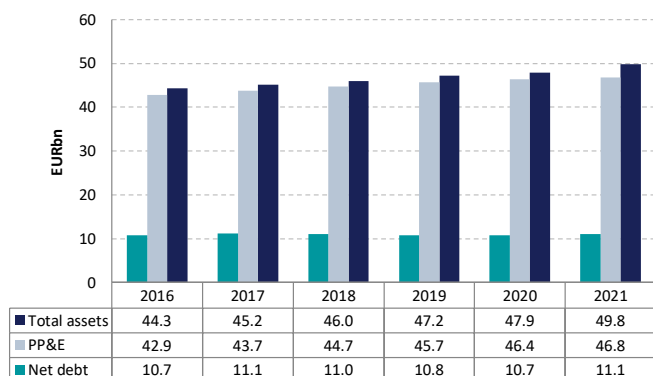
\* Residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.

\*\* Bonds with a minimum volume of EUR 0.5bn or USD 1.0bn. Foreign currencies converted into EUR at rates as at 29 December 2022.

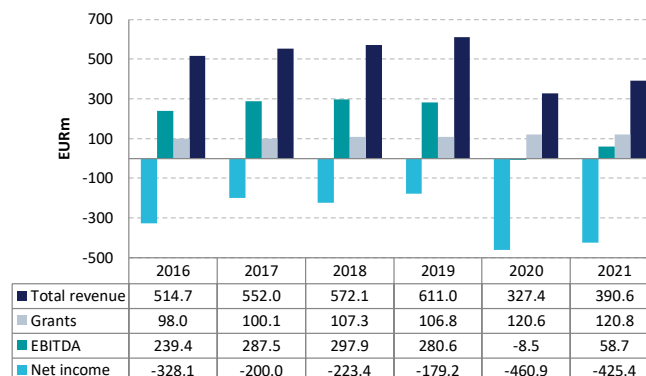
On account of the issuer's individual funding mix, the values for "funding target" and "net supply" in particular may deviate from reality.

Source: Bloomberg, issuer, NORD/LB Markets Strategy & Floor Research

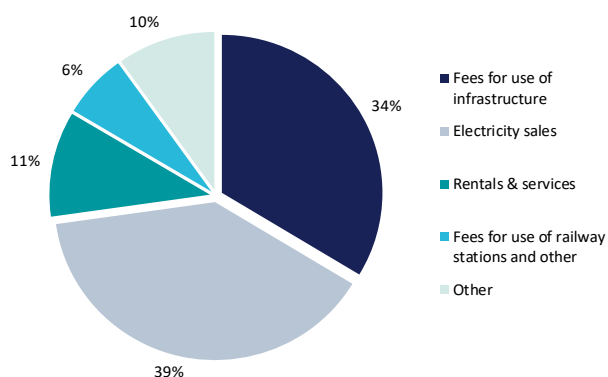
## Balance sheet development



## Earnings development



## Operating income by source

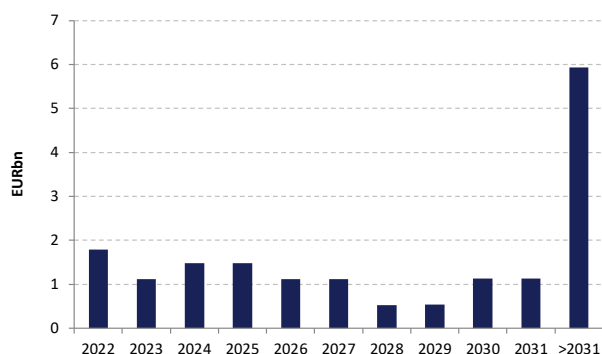


Source: Issuer, NORD/LB Markets Strategy & Floor Research

## Strengths

- + High strategic significance

## Maturing liabilities by year



## Weaknesses

- No explicit guarantee



## Corporación de Reservas Estratégicas de Productos Petroliferos (CORES)

Since 1927, the Spanish government has been obliged to maintain crude oil stocks, which have in the meantime been steadily expanded, ultimately resulting in Corporación de Reservas Estratégicas de Productos Petrolíferos (CORES) being founded in 1995. The mandate of CORES is to amass and administer Spain's strategic oil reserves, in addition to monitoring compliance with legally defined minimums for reserves of petroleum products, liquefied petroleum gas (LPG) and natural gas. The obligation to maintain reserves of crude oil and petroleum products to cover a consumption period equivalent to 92 days is split in Spain between CORES (42 days) and the oil industry (50 days). Due to energy shortage associated with the Russian war of aggression in Ukraine, however, the minimum security reserves have been temporarily reduced to cover demand for a period of 84.2 days. In addition, CORES monitors the diversification of sources of natural gas in relation to maintaining legal limits. CORES operates as a Corporación de Derecho Público (legal entity under public law) with its own legal entity under private law and is subject to indirect supervision through the Ministry of Industry, Energy and Tourism. Due to its legal status, CORES does not have equity of its own, nor does it have any owner(s). The organisation generates its income through the fees paid by its members and other companies which are obliged to maintain minimum reserves. Wholesale markets for crude oil and LPG products, as well as natural gas suppliers in Spain, are automatically registered as members of CORES. The refineries of companies such as Repsol, CEPSA and BP account for the majority of Spain's storage capacity. In December 2013, CORES was appointed as Spain's central stockholding entity as defined in EU Directive 2009/119/EC. There is no legal guarantee or liability mechanism for CORES. However, in view of its crucial importance as the central body administering strategic oil reserves, high probability of support can be assumed.

### General information

[Homepage](#)

[Investor Relations](#)

#### Owner(s)

-

#### Guarantor(s)

-

#### Liability mechanism

-

#### Legal form

Corporación de Derecho Público

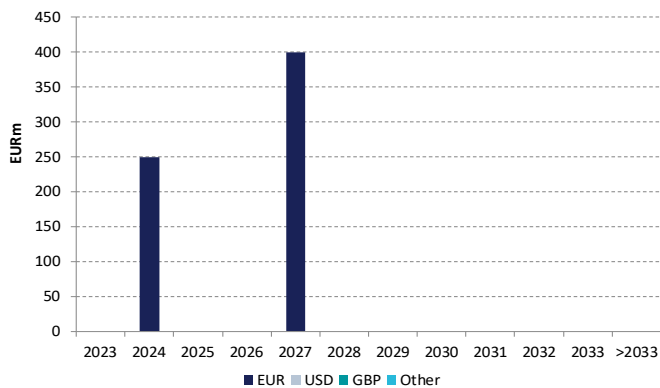
#### Bloomberg ticker

CORES

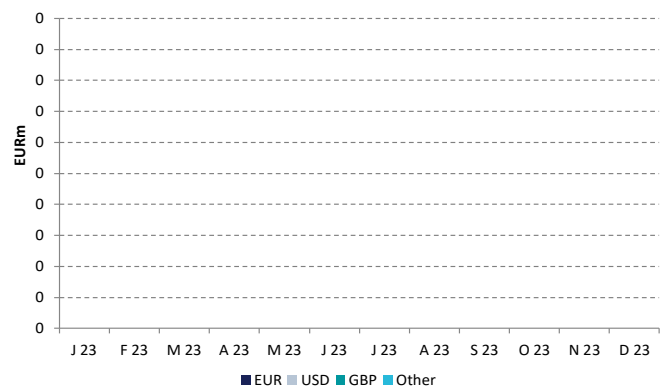
#### Ratings

	Long-term	Outlook
Fitch	A-	stab
Moody's	-	-
S&P	A	stab

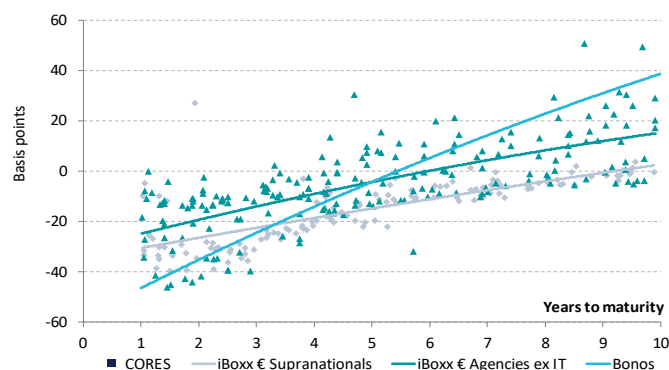
### Bonds by currency



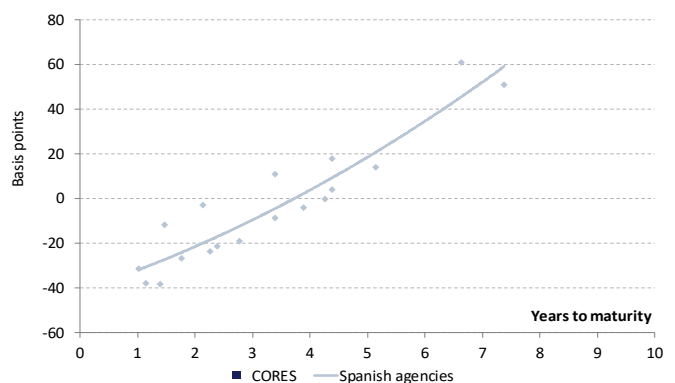
### Bond amounts maturing in the next 12 months



### CORES vs. iBoxx € indices and Bonos



### CORES vs. Spanish agencies



NB: Foreign currencies are converted into EUR at rates as at 26 October 2022; Residual term to maturity > 1 year and < 10 years; outstanding volume at least EUR 0.5bn. Source: Bloomberg, Markit, NORD/LB Markets Strategy & Floor Research



### Regulatory details

Risk weighting according to CRR/Basel III (standard approach) 50%	Liquidity category according to Liquidity Coverage Ratio (LCR) -	Haircut category according to ECB repo rules III	Leverage ratio/BRRD Does not apply
--	---	---	---------------------------------------

### Relative value

Attractiveness vs. Spain (G-spread; bp)*			Attractiveness vs. Mid-Swap (ASW-spread; in bp)*			Index weighting	
Minimum	Median	Maximum	Minimum	Median	Maximum	iBoxx € Sub-Sovereigns	iBoxx € Agencies
-	-	-	-	-	-	0.0%	0.0%

### Funding & ESG (EURbn/EUR equivalent)

Target 2023 0.5	Maturities 2023 0.0	Net Supply 2023 0.5	Funding instruments Benchmarks, other public bonds	Central bank access -	No. of ESG bonds 0	ESG volume 0.0
--------------------	------------------------	------------------------	---	--------------------------	-----------------------	-------------------

### Outstanding volume (EURbn/EUR equivalent)

Total 0.7	of which in EUR 0.7	No. of EUR benchmarks** 0	of which in USD 0.0	No. of USD benchmarks** 0	of which in other currencies 0.0
--------------	------------------------	------------------------------	------------------------	------------------------------	-------------------------------------

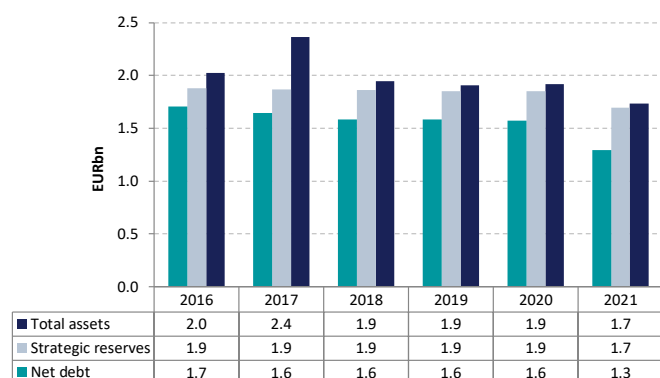
\* Residual term to maturity >1 year and <10 years; outstanding volume at least EUR 0.5bn.

\*\* Bonds with a minimum volume of EUR 0.5bn or USD 1.0bn. Foreign currencies converted into EUR at rates as at 29 December 2022.

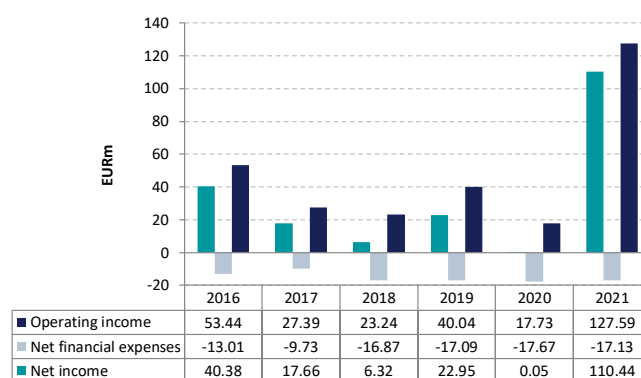
On account of the issuer's individual funding mix, the values for "funding target" and "net supply" in particular may deviate from reality.

Source: Bloomberg, issuer, NORD/LB Markets Strategy & Floor Research

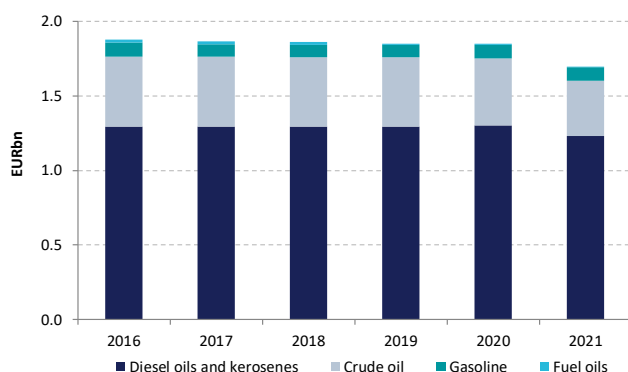
### Balance sheet development



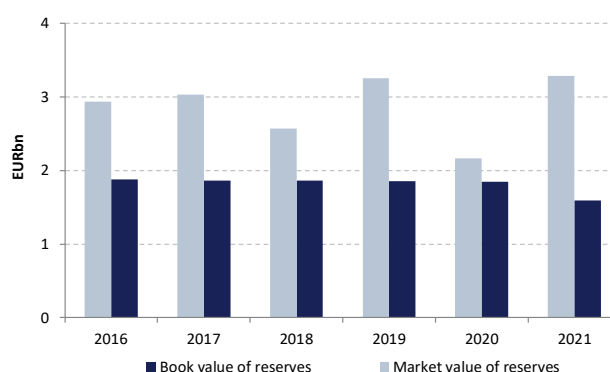
### Earnings development



### Development of strategic reserves by product (book value)



### Book values vs. market values of strategic reserves



Source: Issuer, NORD/LB Markets Strategy & Floor Research

### Strengths

- + High strategic significance
- + Rules on covering costs significantly reduce liquidity risks

### Weaknesses

- No explicit guarantee
- Comparatively high risk weighting according to standard approach of CRR/Basel III

## Appendix

### Publication overview

#### Issuer Guides:

[German Agencies 2022](#)

[Dutch Agencies 2022](#)

[Austrian Agencies 2022](#)

French Agencies 2022 (tba)

Supranationals 2022 (tba)

[Issuer Guide – German Laender 2022](#)

[Issuer Guide Covered Bonds 2022](#)

#### SSA/Public Issuers:

[Beyond Bundeslaender: Greater Paris \(IDF/VDP\)](#)

[Spotlight on Belgian regions](#)

[Spotlight on Spanish regions](#)

#### Fixed Income Specials:

[ESG-Update 2022](#)

[ECB: The Wishing-Table, the Gold-Ass, and the Cudgel in the Sack](#)

[ECB interest rate decision: delivered as expected?](#)

[ECB acts as the ‘House of Hikes’ – or: Winter is coming!](#)

[ECB frontloads rate hike by +50bp and breaches pre-commitment](#)

[ECB ready for lift-off: Every journey starts with a first step](#)

## Appendix

### Contacts at NORD/LB

#### Markets Strategy & Floor Research



**Dr Frederik Kunze**

Covered Bonds/Banks

+49 172 354 8977

[frederik.kunze@nordlb.de](mailto:frederik.kunze@nordlb.de)



**Melanie Kiene**

Covered Bonds/Banks

+49 172 169 2633

[melanie.kiene@nordlb.de](mailto:melanie.kiene@nordlb.de)



**Stefan Rahaus**

Covered Bonds/Banks

+49 172 6086 438

[stefan.rahaus@nordlb.de](mailto:stefan.rahaus@nordlb.de)



**Dr Norman Rudschuck**

SSA/Public Issuers

+49 152 090 24094

[norman.rudschuck@nordlb.de](mailto:norman.rudschuck@nordlb.de)



**Jan-Phillipp Hensing**

SSA/Public Issuers

+49 172 425 2877

[jan-phillipp.hensing@nordlb.de](mailto:jan-phillipp.hensing@nordlb.de)

#### Sales

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

#### Origination & Syndicate

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

#### Treasury

Collat. Management/Repos	+49 511 9818-9200
Liquidity Management	+49 511 9818-9620 +49 511 9818-9650

#### Trading

Covereds/SSA	+49 511 9818-8040
Financials	+49 511 9818-9490
Governments	+49 511 9818-9660
Länder/Regionen	+49 511 9818-9550
Frequent Issuers	+49 511 9818-9640

#### Sales Wholesale Customers

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

**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 Finanzdienstleistungsaufsicht; 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 Markets Strategy & 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](http://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](http://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](http://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: Friday, 30 December 2022 (09:37h)