



May 2024 IORP Risk Dashboard

Key Observations

Macro risks

Credit risks

Market & asset return risks

Liquidity risks

Reserve & funding risks

Concentration risks

ESG related risks

Digitalisation & cyber risks

APPENDIX

# Institutions for occupational retirement provision (IORPs) Risk Dashboard

EIOPA-BoS-24-143

May 2024

This risk dashboard, based on individual occupational pensions regulatory reporting, summarises the main risks and vulnerabilities in the EEA Institutions for Occupational Retirement Provision (IORPs) sector for the different schemes, i.e. defined contributions (DC) and defined benefits (DB), through a set of risk indicators. It should be noted that depending on the characteristics of the pension scheme, risks might not ultimately be born by the IORPs themselves but by their members and beneficiaries or their sponsors.

The risk dashboard shows for each risk indicator the distribution of the individual reported data over time together with the weighted average, capturing the relative importance of the different entities for the sector. For specific indicators, this information is complemented by relevant data from external sources.

## May 2024 IORP Risk Dashboard

Risks	Level	Trend (Past 3 months)	Outlook (Next 12 months)
Macro risks		↓	→
Credit risks		→	→
Market & asset return risks		→	→
Liquidity risks		↓	→
Reserve & funding risks (DB Schemes)		→	→
Concentration risks		↗	→
ESG related risks		→	→
Digitalisation & cyber risks		→	↗

The reference date for IORP data is Q4-2023 for quarterly indicators and 2022-YE for annual indicators. The cut-off date for indicators based on data from external sources is end-March 2024. The Level (colour) corresponds to the level of risk as of the reference date, the Trend is displayed for the 3 months preceding the reference date and the Outlook is displayed for the 12 months after the reference date. The latter is based on the responses received from 19 national competent authorities (NCAs) and ranked accordingly to the expected change in the materiality of each risk (substantial decrease, decrease, unchanged, increase and substantial increase). More details can be found in the appendix.

## Key Observations

Trend



### MACRO RISKS

Macro-related risks remain at medium level with a decreasing trend due to the positive developments related to the indicators on average forecasted GDP growth and average inflation for the 4 quarters ahead. The average GDP growth increased to 1.2% in the first quarter of 2024 (0.8% in the fourth quarter of 2023), remaining still relatively low.

The indicator on average inflation forecasts for the 4 quarters ahead slightly decreased to 2.4% (2.5% in the previous quarter).

## CREDIT RISKS



Credit risks are at medium level. The CDS spreads for government and corporate bonds, which are the largest investment categories for IORPs, point to low or medium risks in the first quarter of 2024 (11 bps for government bonds and 53 bps for corporate bonds).

IORPs' investments have on average a CQS of 1.5 (median in the fourth quarter of 2023), corresponding to an S&P rating between AA and A.

## MARKET & ASSET RETURN RISKS



Market and asset return risks are stable at a high level with the volatility in bond markets receding in the first quarter of 2024, but remaining above 2021 levels. Volatility in equity markets as measured by the VSTOXX index remained stable.

The latest available data showed a further decline in real estate prices (-7% in the second quarter of 2023 when compared to the same quarter of the previous year), mainly driven by commercial property prices.

## LIQUIDITY RISKS



Liquidity risks are at medium level with a decreasing trend driven by the positive developments in the derivatives positions. The net asset value of IORPs' derivatives shifted closer to zero (median moved from -2.2% in Q3-2023 to 0% of total assets in Q4-2023) due to the lower interest rates in Q4-2023.

The median value of the liquid assets ratio remained unchanged, standing at 52%, while the weighted average increased.

## RESERVE & FUNDING RISKS



Reserve & funding risks (for DB schemes) remain in Q4-2023 at a medium level. Financial positions of DB IORPs' declined due to the lower interest rates, but remaining robust. Given the longer duration of IORPs' technical provisions, lower rates raised the value of their liabilities to a larger extent than their assets.

The median excess of assets over liabilities declined to 17.4% in the fourth quarter of 2023, after the positive trend observed in the recent quarters.

## CONCENTRATION RISKS



Concentration risks are at medium level with an increasing trend given the upward shifting of the weighted average for the country concentration indicator in the fourth quarter of 2023.

---

## ESG RELATED RISKS



ESG related risks remain stable at medium level. The median exposure towards climate relevant assets as a share of total equity and corporate bonds slightly declined for the IORP sector in the fourth quarter of 2023, standing at 0.59%. Similarly, the weighted average for the same indicator slightly moved downwards to 7.3%, still pointing to a higher exposure for larger IORPs.

The median share of IORPs' investments in green bonds over total corporate bonds increased slightly to 6.1% in Q4-2023 (from 5.5% in Q3), while investments assessed w.r.t the EU taxonomy - eligible activity (TEL) as a share of total equity and corporate bonds remained stable with a median standing at 14% in Q4-2023.

---

## DIGITALISATION & CYBER RISKS

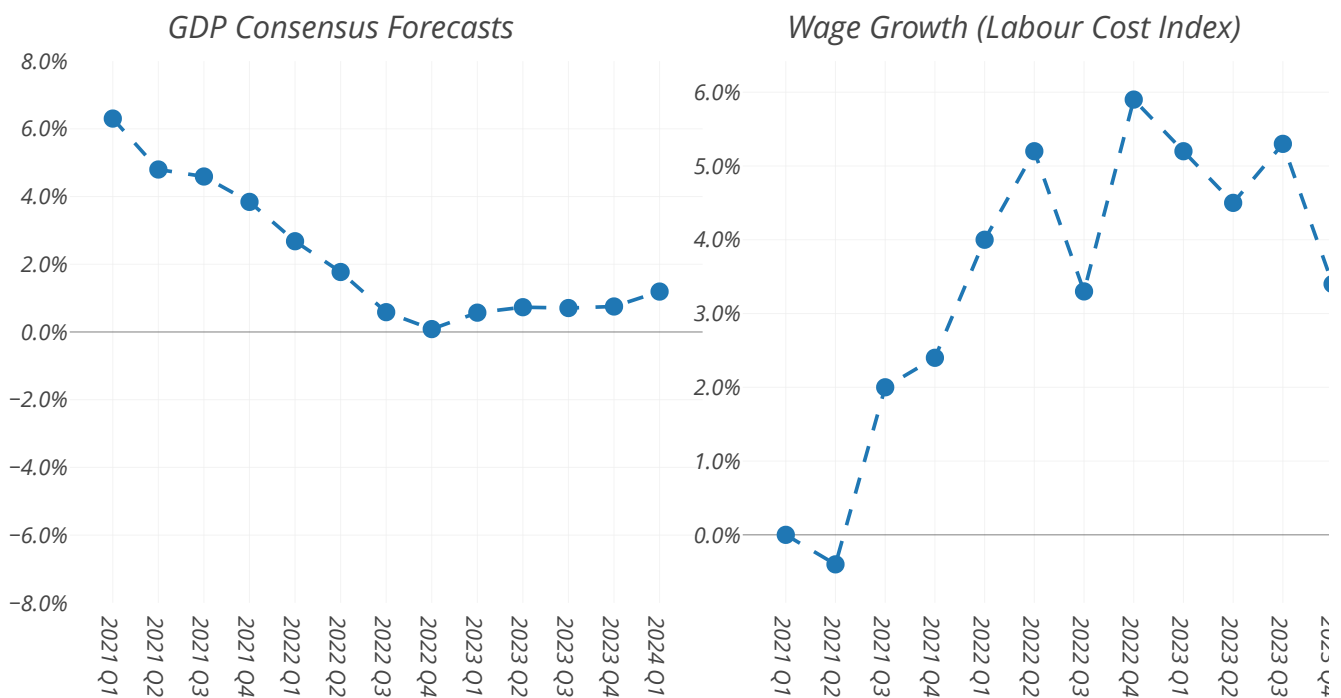


Digitalisation and cyber risks are stable at medium level in the first quarter of 2024. The materiality of these risks for IORPs as assessed by supervisors slightly increased in the first quarter of 2024, reaching the highest level in the last years. Cyber security remained as a main concern.

---

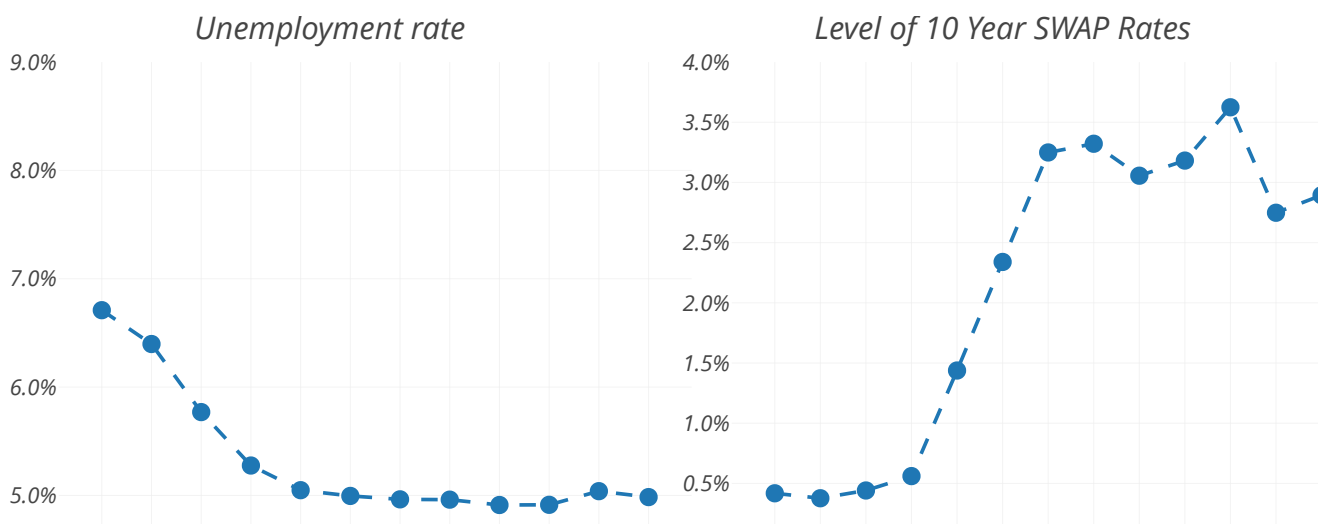
# Macro risks

Macro-related risks remain at medium level with a decreasing trend due to the positive developments related to the indicators on average forecasted GDP growth and average inflation for the 4 quarters ahead. The average GDP growth increased to 1.2% in the first quarter of 2024 (0.8% in the fourth quarter of 2023), remaining still relatively low. The increasing trend is driven by consistent upward revisions for GDP growth across all geographical areas, with a particularly notable increase in the case of US. The indicator on average inflation forecasts for the 4 quarters ahead slightly decreased to 2.4% (2.5% in the previous quarter), mainly driven by the downward revisions for UK and BRICs, partially countered by the upward revisions for US. Euro area wage growth decreased to 3.4% in the fourth quarter of 2023 (5.3% in the previous quarter). The weighted average of the 10 year swap rates for major currencies shifted upwards (2.9% in the first quarter of 2024) after the decline observed in the previous quarter (2.7% in the fourth quarter of 2023). Unemployment rates (weighted average across major geographical areas) are stable compared to the previous quarter, standing at 5%.



Note: Average of forecasts four quarters ahead, weighted average for Euro area, United Kingdom, Switzerland, United States and BRICS based on EEA IORPs' investment exposures.  
Source: Bloomberg Finance L.P.

Source: Eurostat: EA Labour Cost Index (LCI)

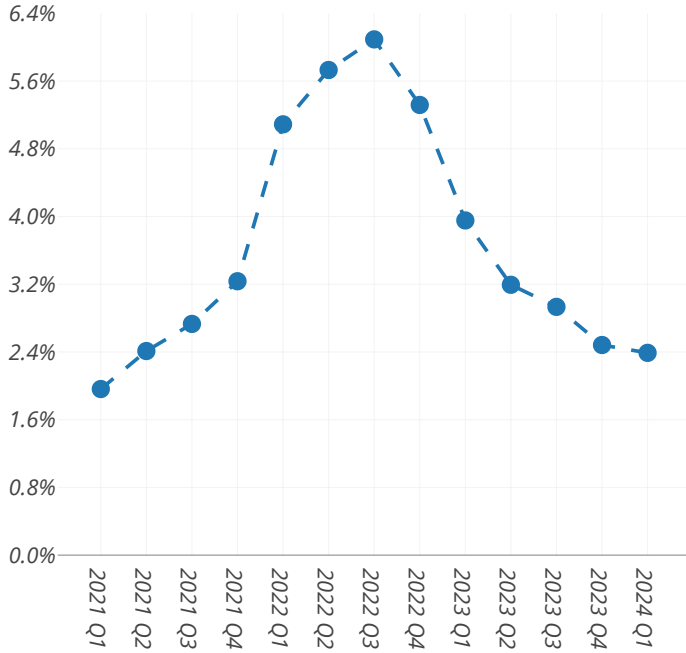




Note: Weighted average for EU, Switzerland, United States and China based on EEA IORPs' investment exposures.  
Source: Refinitiv and ONS UK

Note: Weighted average for EUR, GBP, CHF and USD based on EEA IORPs' investment exposures.  
Source: Refinitiv

Consumer Price Index (CPI) Consensus Forecasts

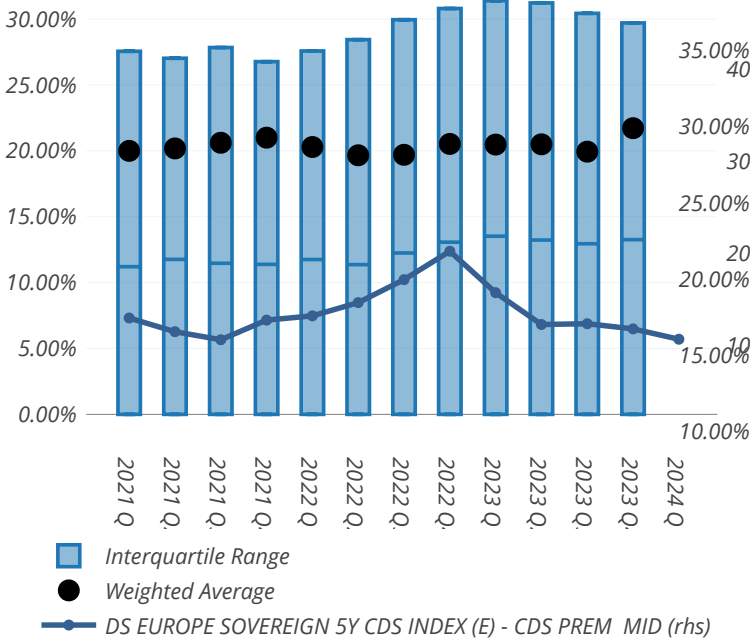


Note: Average of forecasts four quarters ahead, weighted average for Euro area, United Kingdom, Switzerland, United States and BRICS based on EEA IORPs' investment exposures.  
Source: Bloomberg Finance L.P.

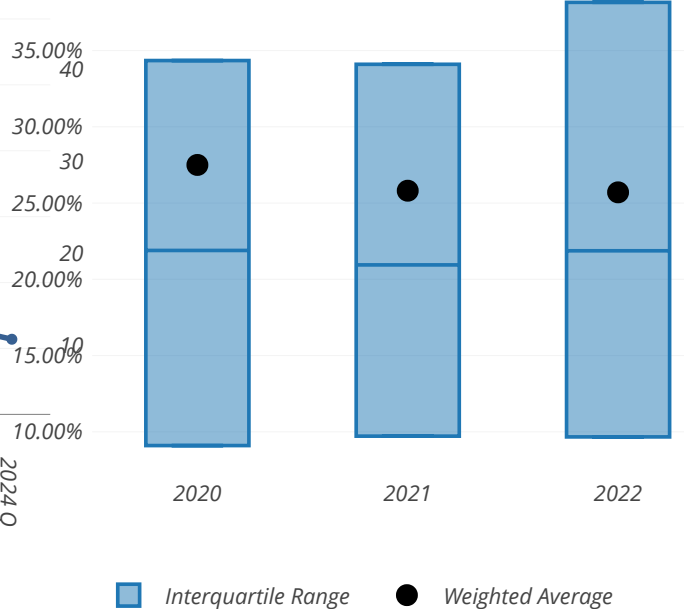
# Credit risks

Credit risks are at medium level. The risks metrics associated to government and corporate bonds, which are the largest investment categories for IORPs, point to low or medium risks in the first quarter of 2024 (CDS spreads of 11 bps for government bonds and 53 bps for corporate bonds). The median exposure of IORPs towards sovereign and corporate bonds as a share of total assets was at 13% and 3.6%, respectively, in the fourth quarter of 2023 (21% and 15.6% when considering exposures via collective investment undertakings based on annual data available for 2022). IORPs' investments in loans and mortgages are limited, with both the median and weighted average standing below 1.5% of total assets. IORPs' investments have on average a CQS of 1.5 (median in the fourth quarter of 2023), corresponding to an S&P rating between AA and A. The median exposure of IORPs to below investment grade assets (with a CQS higher than 3) is low (0% in the fourth quarter of 2023), though when considering the weighted average the figure increases (5.3%), indicating higher exposures for larger IORPs. The correlation between the debt-service ratio of non-financial corporations and non-financial corporate bond spreads, aimed at capturing potential credit risk mispricing, became more negative in the third quarter of 2023.

Investments in government bonds



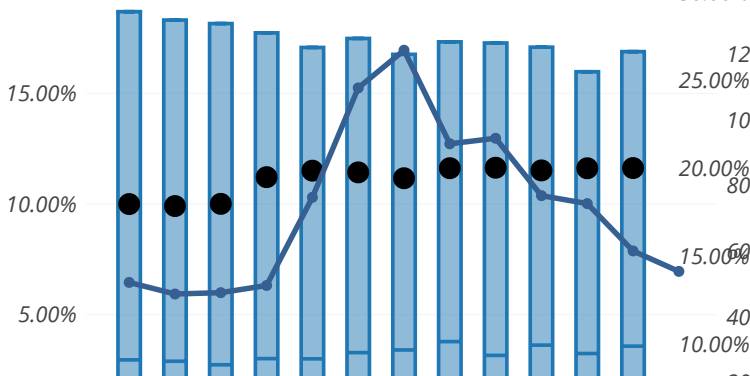
Investments in government bonds (incl. Look-through)



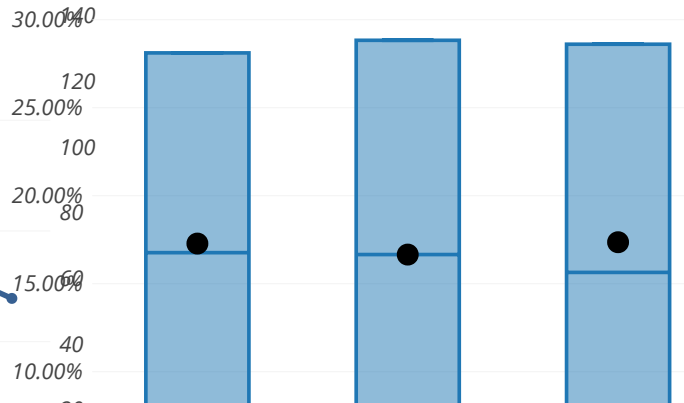
Note: Left scale shows the distribution of exposures excl. collective investment undertakings (inter-quartile range and median), right scale the risk measure  
Source: EIOPA Occupational Pensions Regulatory Reporting and Bloomberg

Note: The indicator includes exposures via collective investment undertakings, i.e. look-through is applied.  
Source: EIOPA Occupational Pensions Regulatory Reporting and Bloomberg

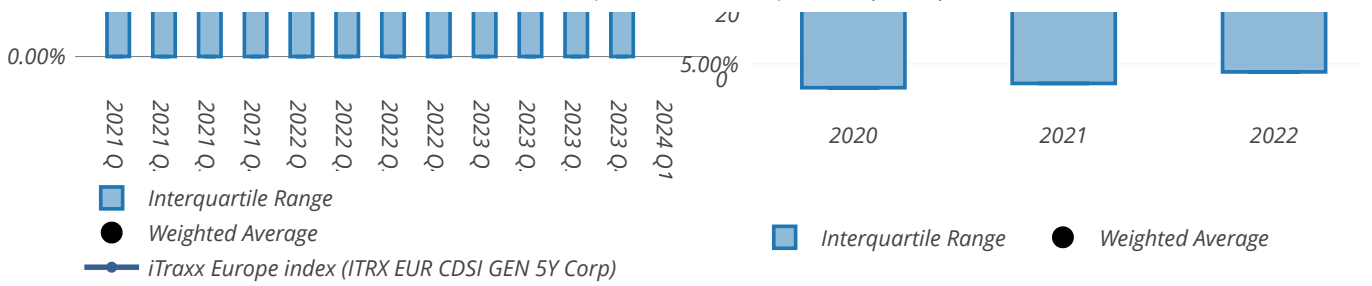
Investments in corporate bonds



Investments in corporate bonds (incl. Look-through)



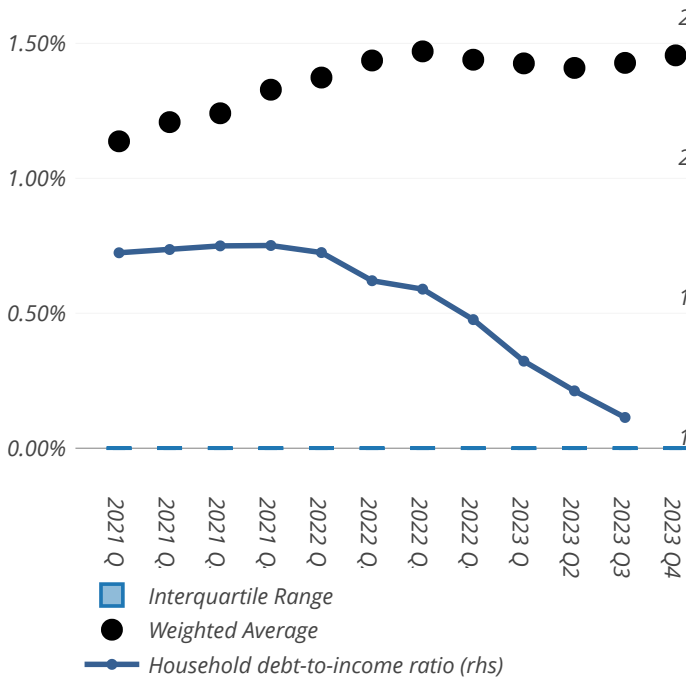
Institutions for occupational retirement provision (IORPs) Risk Dashboard



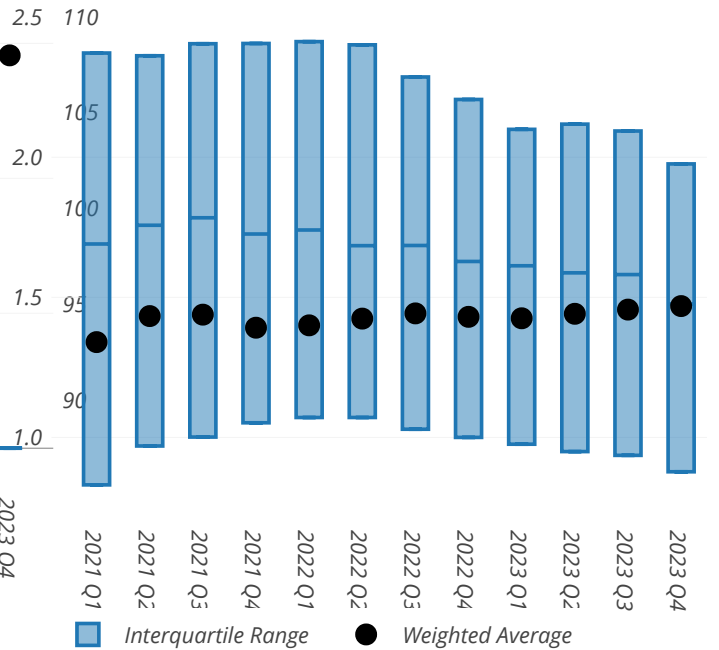
Note: Left scale shows the distribution of exposures excl. collective investment undertakings (inter-quartile range and median), right scale the risk measure  
 Source: EIOPA Occupational Pensions Regulatory Reporting and Bloomberg

Note: The indicator includes exposures via collective investment undertakings, i.e. look-through is applied.  
 Source: EIOPA Occupational Pensions Regulatory Reporting and Bloomberg

Investments in loans and mortgages



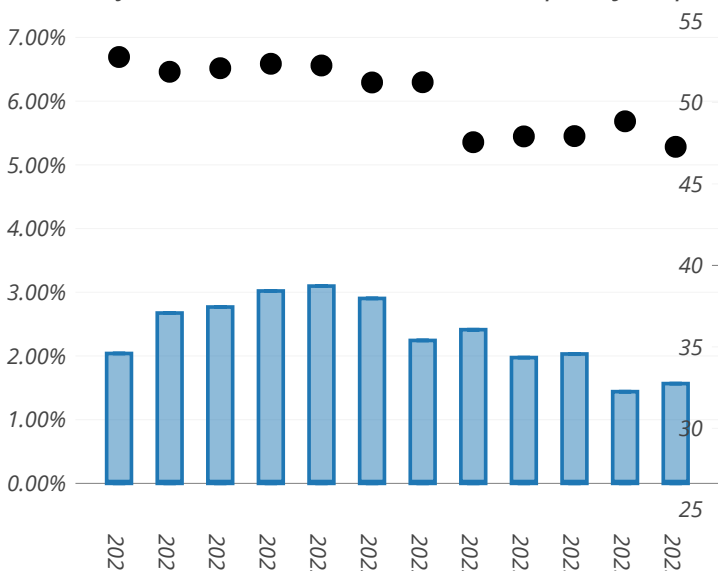
Average rating of Investments (credit quality step)



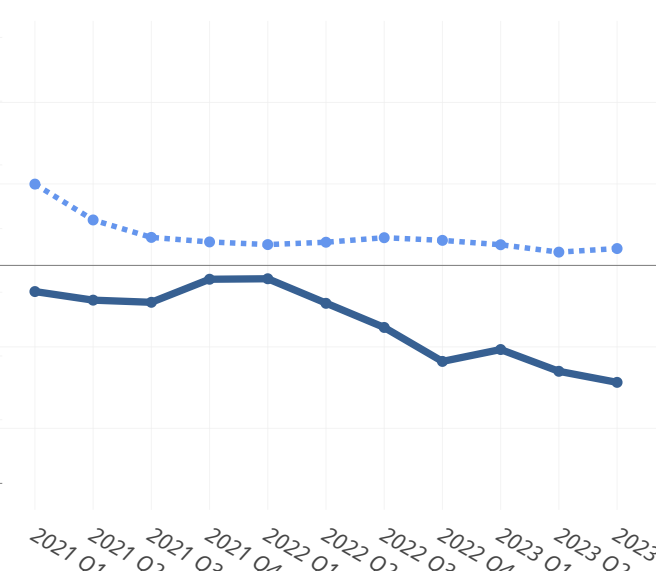
Note: Left scale shows the distribution of exposures excl. collective investment undertakings (inter-quartile range and median), right scale the risk measure for Euro Area. This indicator is only relevant for some jurisdictions  
 Source: EIOPA Occupational Pensions Regulatory Reporting and ECB

Source: EIOPA Occupational Pensions Regulatory Reporting

Share of low rated investments (credit quality step > 3)



Fundamental credit risk







Source: EIOPA Occupational Pensions Regulatory Reporting

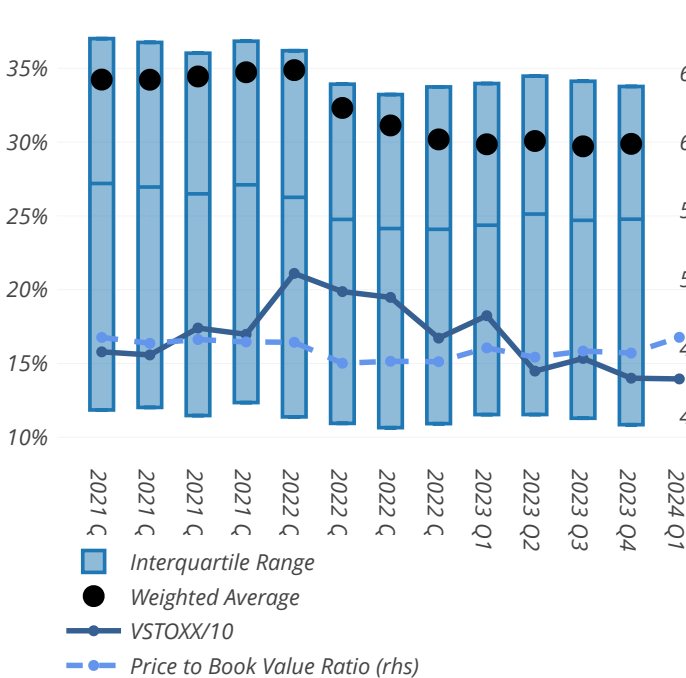
Note: Weighted average of Debt-service ratio NFCs for Germany, Spain, France, Italy, Netherlands, United Kingdom and United States based on EEA IORPs' investment exposures. Correlation between the debt-service ratio of non-financial corporates and the spread of non-financial corporate bonds based on a 12-quarter rolling window

Source: BIS: Debt-service ratio NFCs and Bloomberg: LECFOAS Index

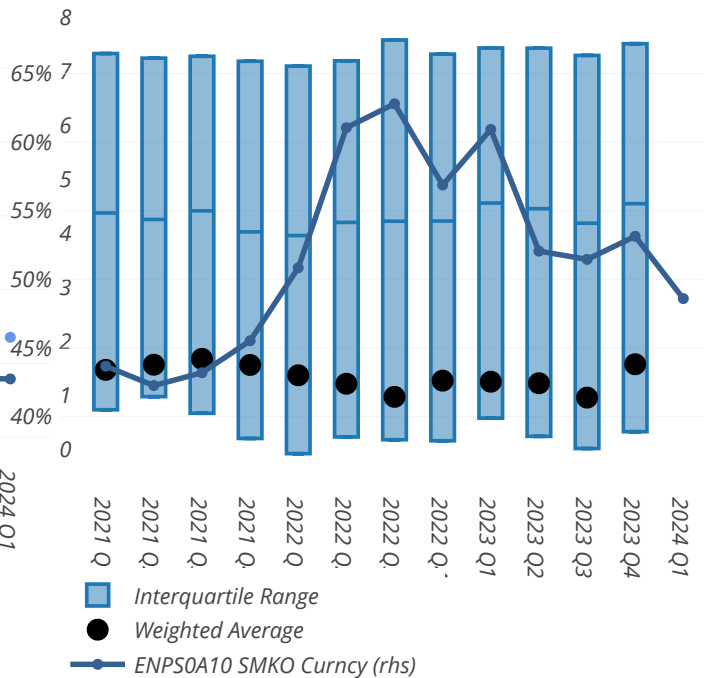
# Market & asset return risks

Market and asset return risks are stable at a high level with the volatility in bond markets receding in the first quarter of 2024, but remaining above 2021 levels. Volatility in equity markets as measured by the VSTOXX index remained stable. The median exposure of IORPs towards equity as a share of total assets was at around 25% in the fourth quarter of 2023 (including exposures to collective investment undertakings investing in equity). The latest available data showed a further decline in real estate prices (-7% in the second quarter of 2023 when compared to the same quarter of the previous year), mainly driven by commercial property prices. The median exposure of IORPs towards property as a share of total assets is limited (1% of total assets in the fourth quarter of 2023), though the figure is higher when considering the weighted average for the sector (6%). This indicates higher exposures for larger IORPs. Also, exposures to assets denominated in foreign currency seem to be higher for larger IORPs, with the median exposure at 1.5% of total assets and the weighted average at 25.3%. The median duration of the IORPs' assets is overall stable standing slightly above 5 years.

Investments in equity and participations



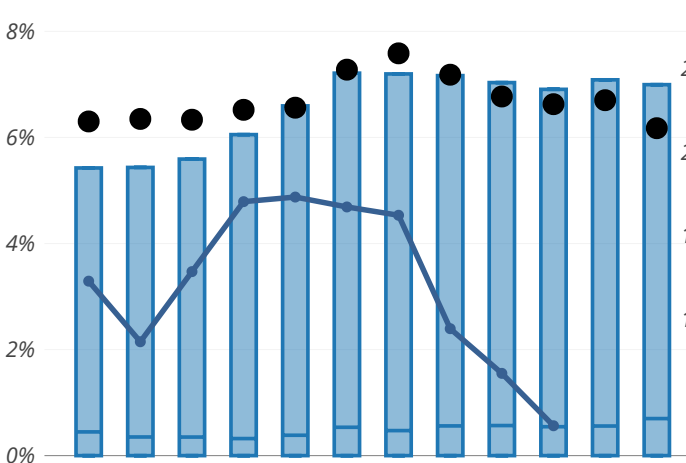
Investments in bonds



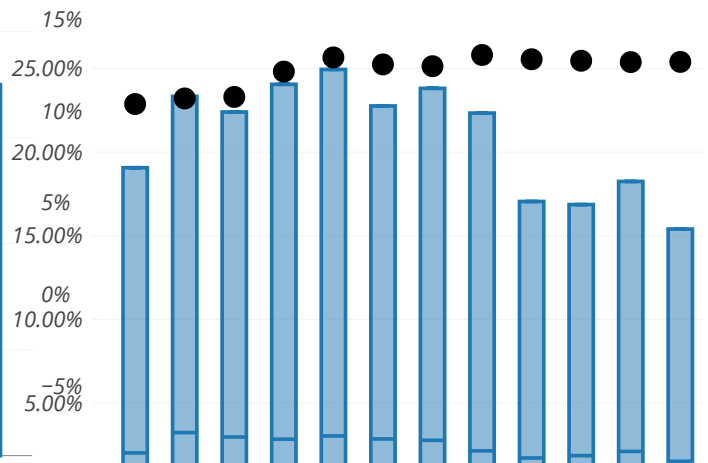
Note: Left scale shows the distribution of exposures incl. collective investment undertakings investing in equity (interquartile range and median), right scale the risk measure  
 Source: EIOPA Occupational Pensions Regulatory Reporting and Bloomberg

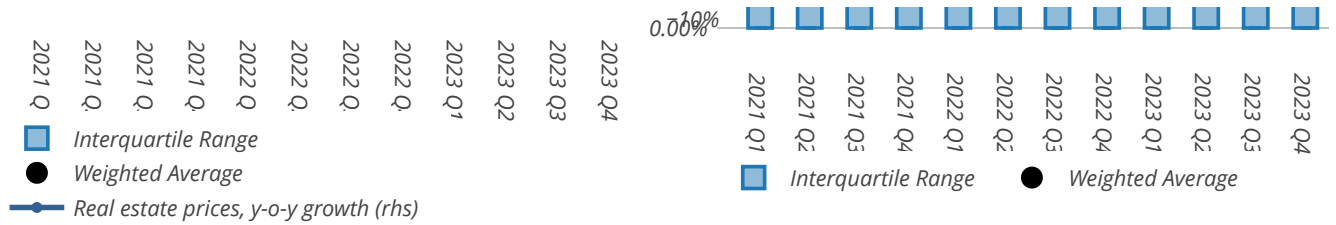
Note: Left scale shows the distribution of exposures incl. collective investment undertakings investing in bonds (interquartile range and median), right scale the risk measure  
 Source: EIOPA Occupational Pensions Regulatory Reporting and Bloomberg

Investments in property



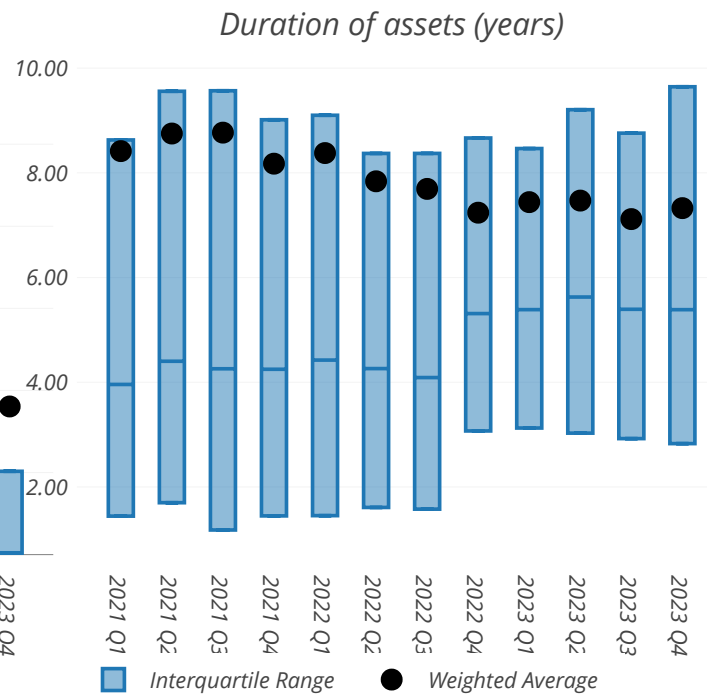
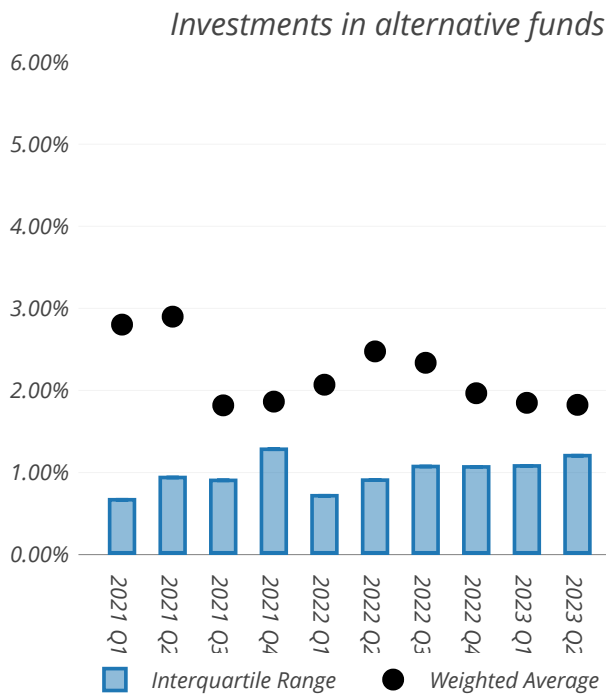
Assets denominated in foreign currency





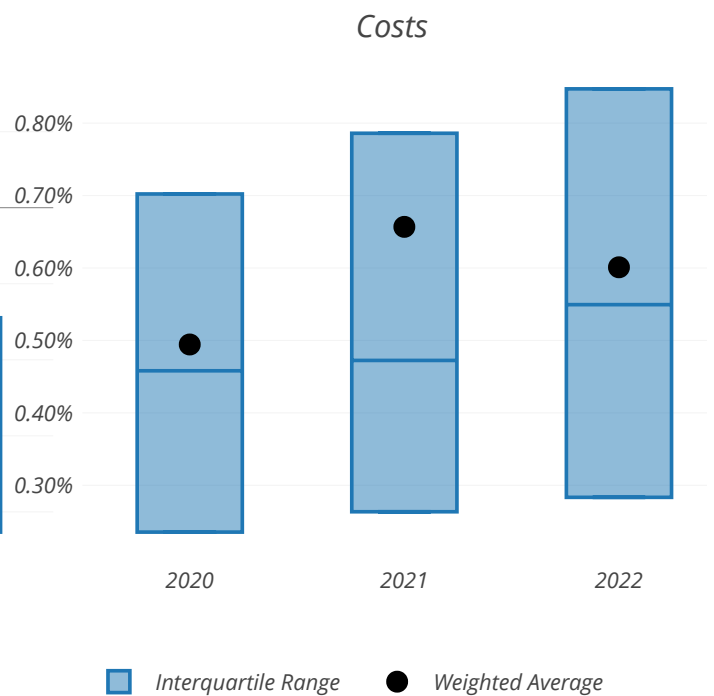
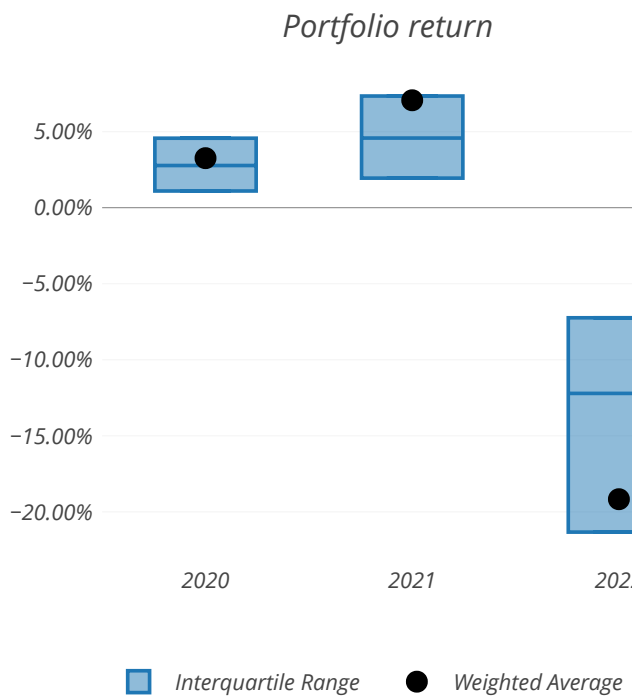
Note: Left scale shows the distribution of exposures incl. collective investment undertakings investing in real estate (inter-quartile range and median), right scale the risk measure. The growth of real estate prices is calculated as a weighted average of commercial and residential real estate prices based on EEA IORPs' investment exposures  
 Source: EIOPA Occupational Pensions Regulatory Reporting and ECB

Source: EIOPA Occupational Pensions Regulatory Reporting



Source: EIOPA Occupational Pensions Regulatory Reporting

Source: EIOPA Occupational Pensions Regulatory Reporting

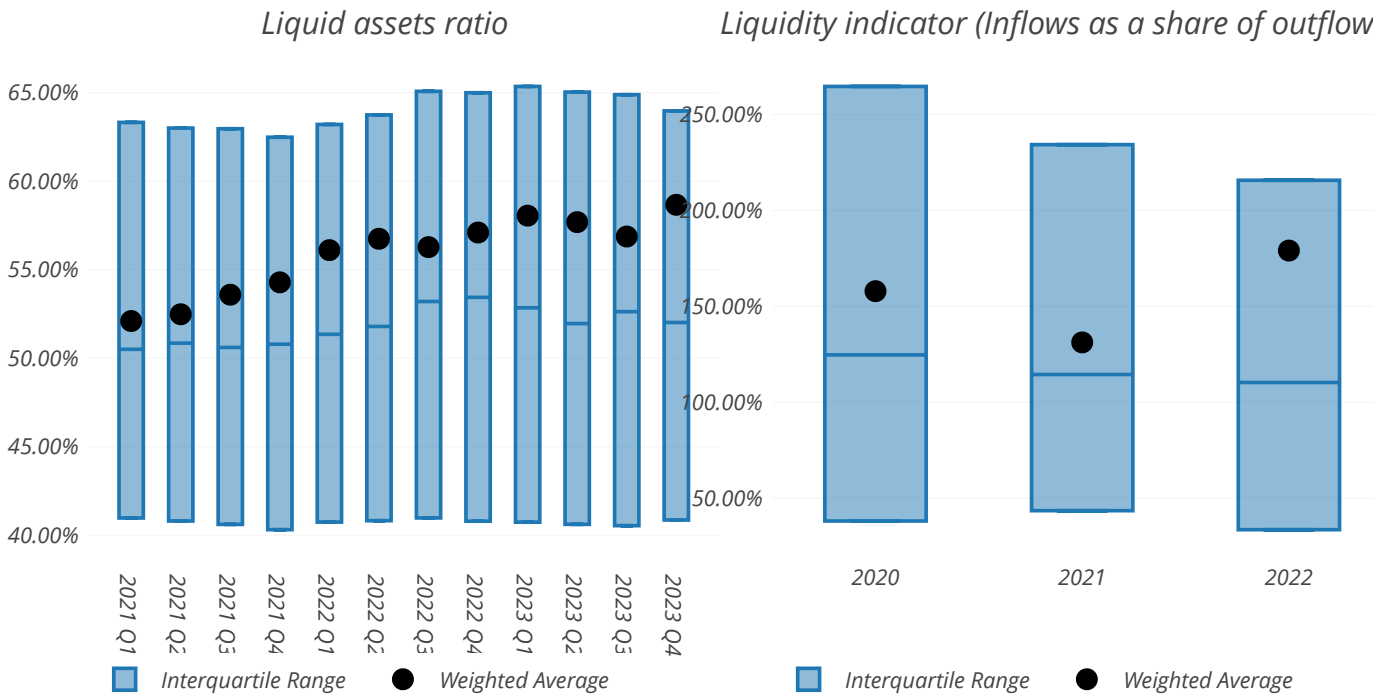


*Note: The indicator is calculated based on reported investment income including unrealised gains and losses*  
*Source: EIOPA Occupational Pensions Regulatory Reporting*

*Note: Tax expenses are excluded*  
*Source: EIOPA Occupational Pensions Regulatory Reporting*

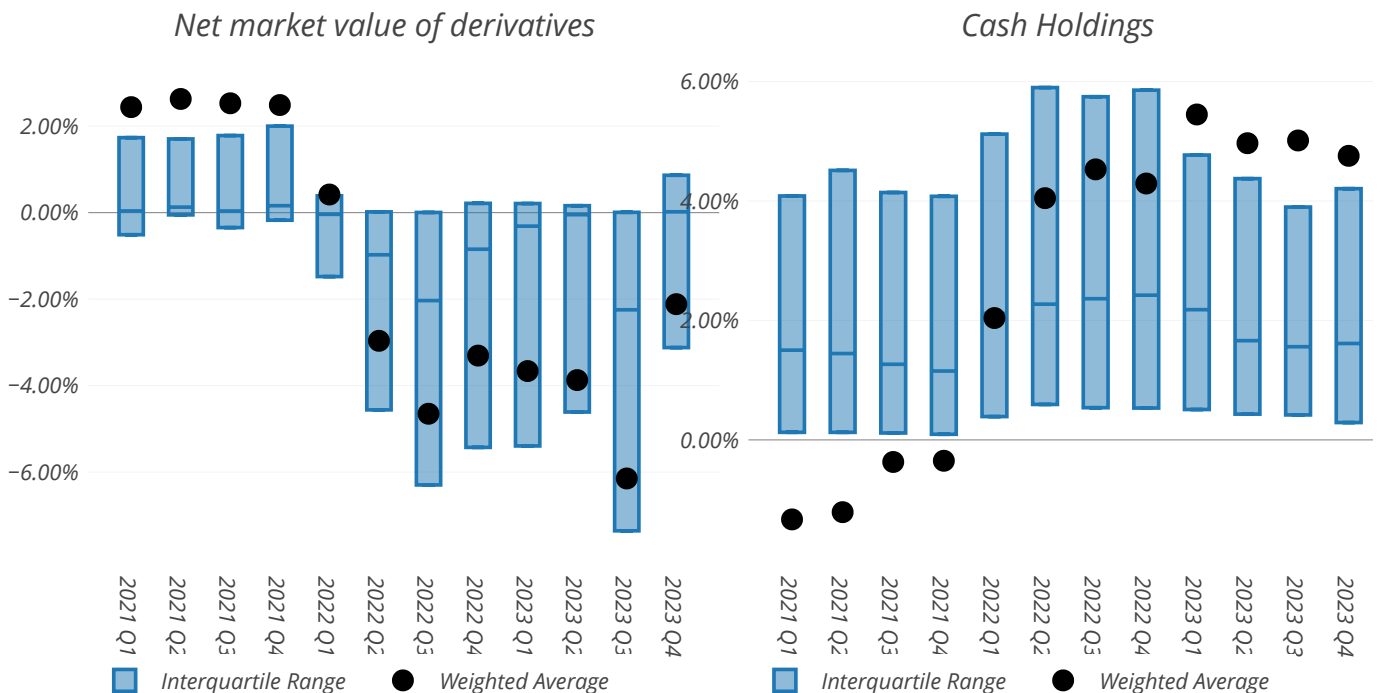
# Liquidity risks

Liquidity risks are at medium level with a decreasing trend driven by the positive developments in the derivatives positions. The net asset value of IORPs' derivatives shifted closer to zero (median moved from -2.2% in Q3-2023 to 0% of total assets in Q4-2023) due to the lower interest rates in Q4-2023. The two indicators for the net market value of derivatives positions and cash holdings tend to mirror each other and therefore, grossly, balance out, in particular for the largest IORPs. The median value of the liquid assets ratio remained unchanged at around 52%, while the weighted average increased (from 56.8% to 58.6% in Q4-2023).



Note: The index is based on a weighting and bucketing of asset classes according to their liquidity  
 Source: EIOPA Occupational Pensions Regulatory Reporting

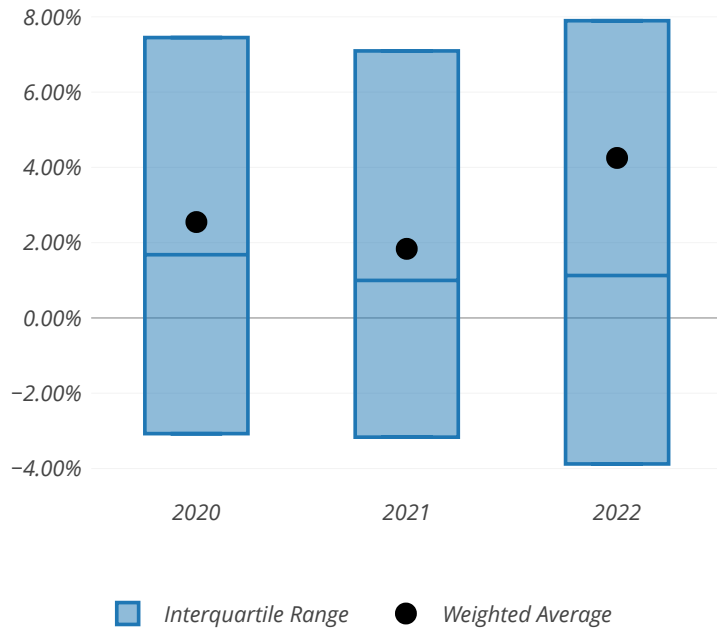
Source: EIOPA Occupational Pensions Regulatory Reporting



Source: EIOPA Occupational Pensions Regulatory Reporting

Note: The existence of negative cash holdings can result from collateral positions that are reported as negative assets  
Source: EIOPA Occupational Pensions Regulatory Reporting

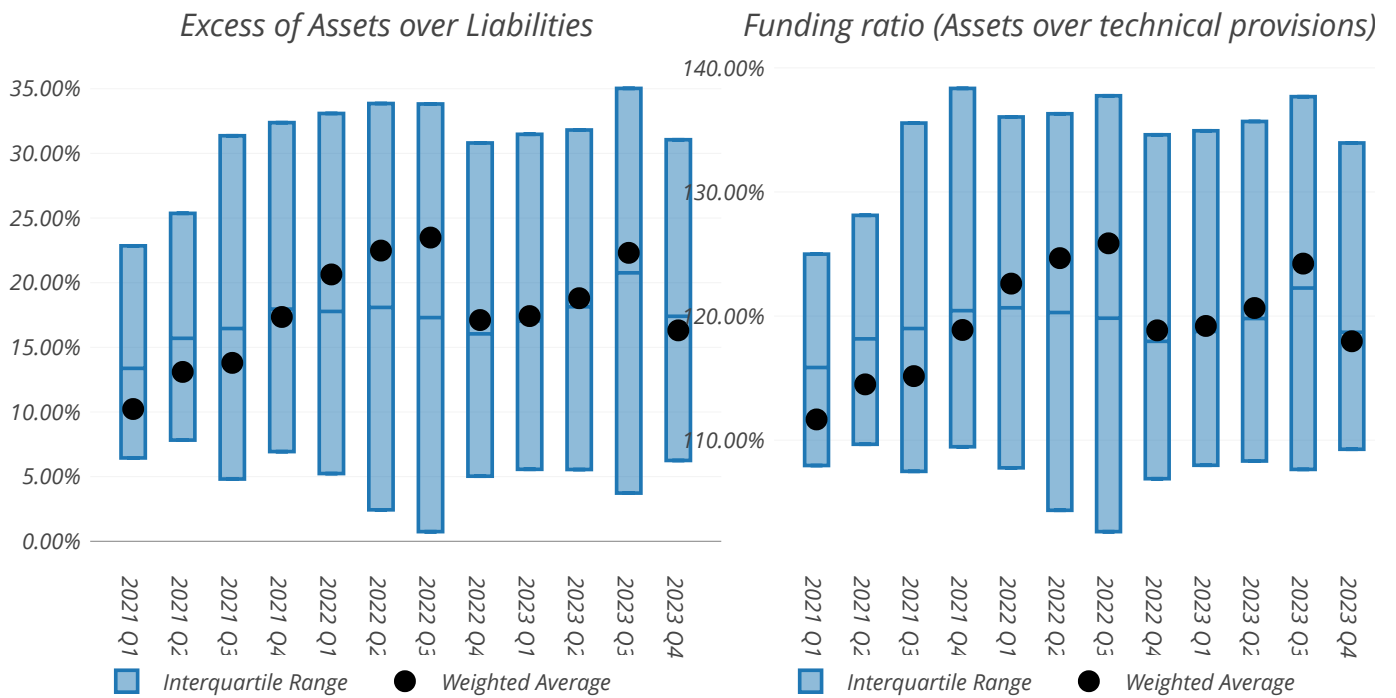
Stability of cash flow position (Net cash flows over liquid assets)



Source: EIOPA Occupational Pensions Regulatory Reporting

# Reserve & funding risks

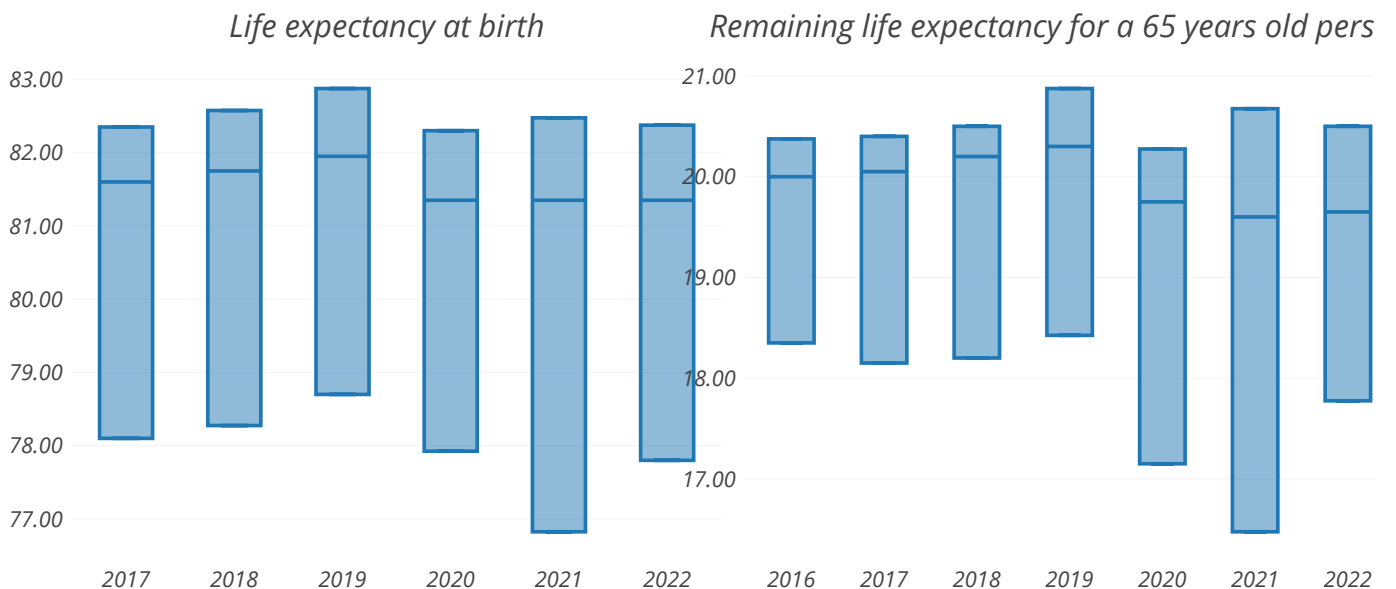
Reserve & funding risks (for DB schemes) remain in Q4-2023 at a medium level. Financial positions of DB IORPs' declined due to the lower interest rates, but remaining robust. Given the longer duration of IORPs' technical provisions, lower rates raised the value of their liabilities to a larger extent than their assets. The median excess of assets over liabilities declined to 17.4% in the fourth quarter of 2023 (20.7% in the previous quarter), after the positive trend observed in the recent quarters. The median for the funding ratio, calculated as assets over technical provisions, showed a similar pattern, standing at 118.7% in the fourth quarter of 2023 (122.2% in Q3-2023). The median of life expectancy for both newborn persons and 65 year old persons in the EEA remained stable in 2022, at 81 and 19, whereas the lower percentiles improved with respect to the 2021 levels.



Note: The indicator is calculated as excess of assets over liabilities as a share of liabilities

Source: EIOPA Occupational Pensions Regulatory Reporting

Source: EIOPA Occupational Pensions Regulatory Reporting



 *Interquartile Range*

 *Interquartile Range*

*Note: Indicator is calculated based on the annual latest available expectancy at birth for all EEA countries*  
*Source: Eurostat*

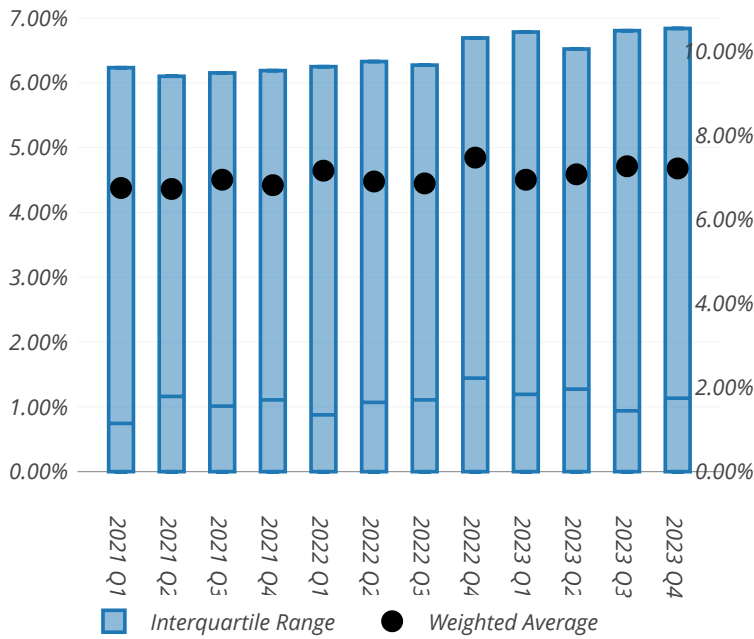
*Note: Indicator is calculated based on the annual latest available remaining life expectancy for a 65 years old person for all EEA countries*  
*Source: Eurostat*



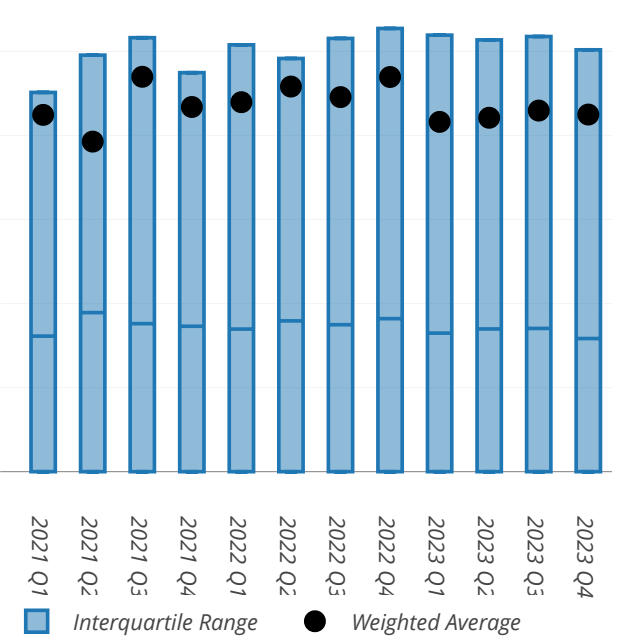
# Concentration risks

Concentration risks are at medium level with an increasing trend given the upward shifting of the weighted average for the country concentration indicator in the fourth quarter of 2023 (28.6% from 23.9% in the previous quarter). Similarly, the weighted average of exposures to domestic sovereign bonds as a share of total assets increased (5% from 4.5% in the previous quarter). Measures of portfolio concentration per asset class and issuer sector remained broadly unchanged compared to the previous quarter. These measures are calculated excluding investments via collective investment undertakings (CIUs), therefore showing high levels of concentration for those IORPs investing mainly via this asset class

*Investments in banks*



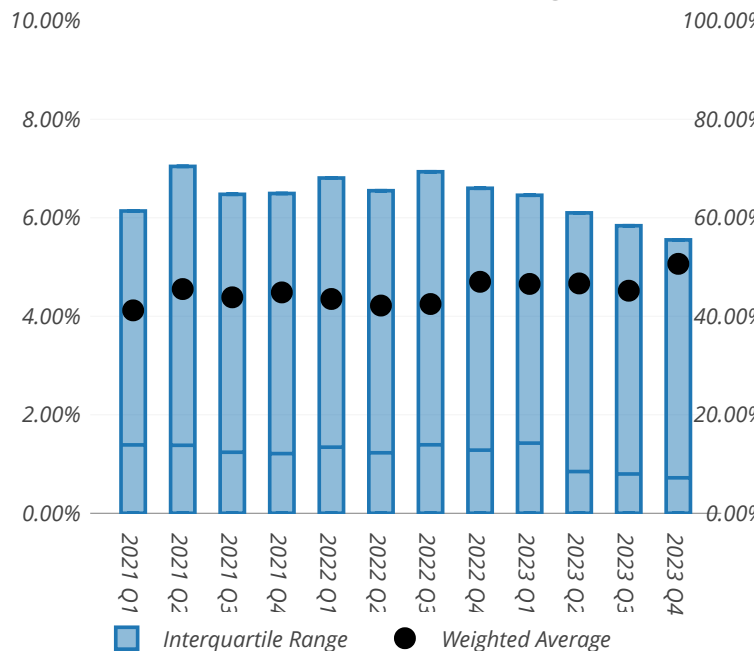
*Investments in other financial institutions*



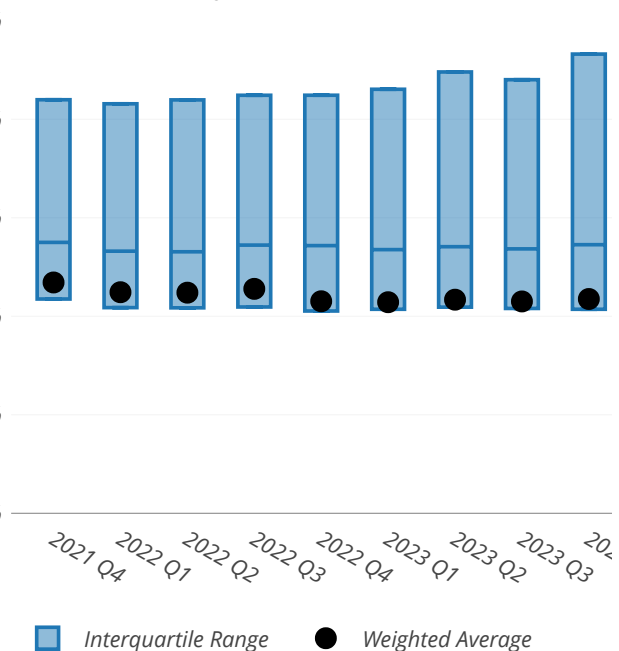
Note: Banks comprise all activities identified with NACE code K64.1.9. The numerator excludes collective investment undertakings  
 Source: EIOPA Occupational Pensions Regulatory Reporting

Note: Other financial institutions comprise all activities identified with NACE codes K64 (excl. K64.1.9), K65 and K66. The numerator excludes collective investment undertakings  
 Source: EIOPA Occupational Pensions Regulatory Reporting

*Investments in domestic sovereign debt*

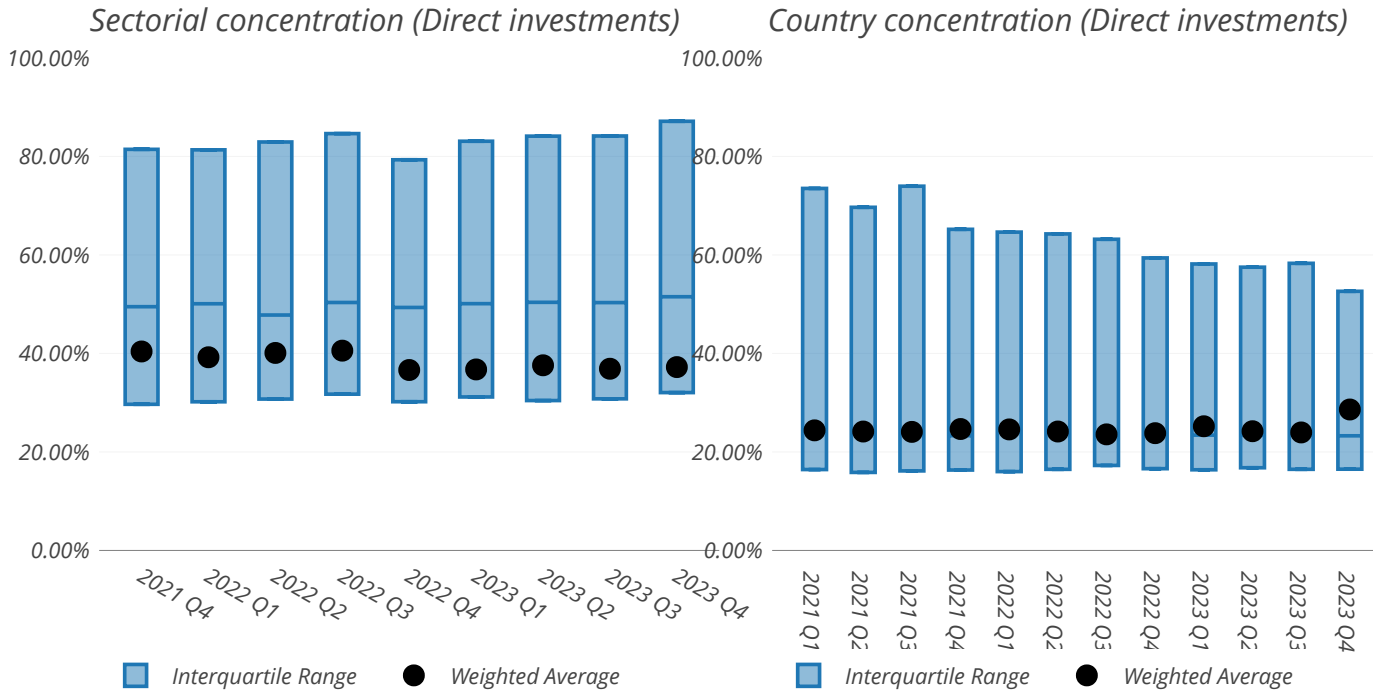


*Concentration of Assets (Direct investments)*



Note: The numerator excludes collective investment undertakings  
 Source: EIOPA Occupational Pensions Regulatory Reporting

Note: Herfindahl Hirschman index computed on six balance sheet asset classes (government bonds, corporate bonds, equities, properties, cash and cash equivalents and loans and mortgages). Collective investment undertakings (CIUs) are excluded. The indicator includes small IORPs investing mainly via CIUs and thus with a high level of concentration  
 Source: EIOPA Occupational Pensions Regulatory Reporting

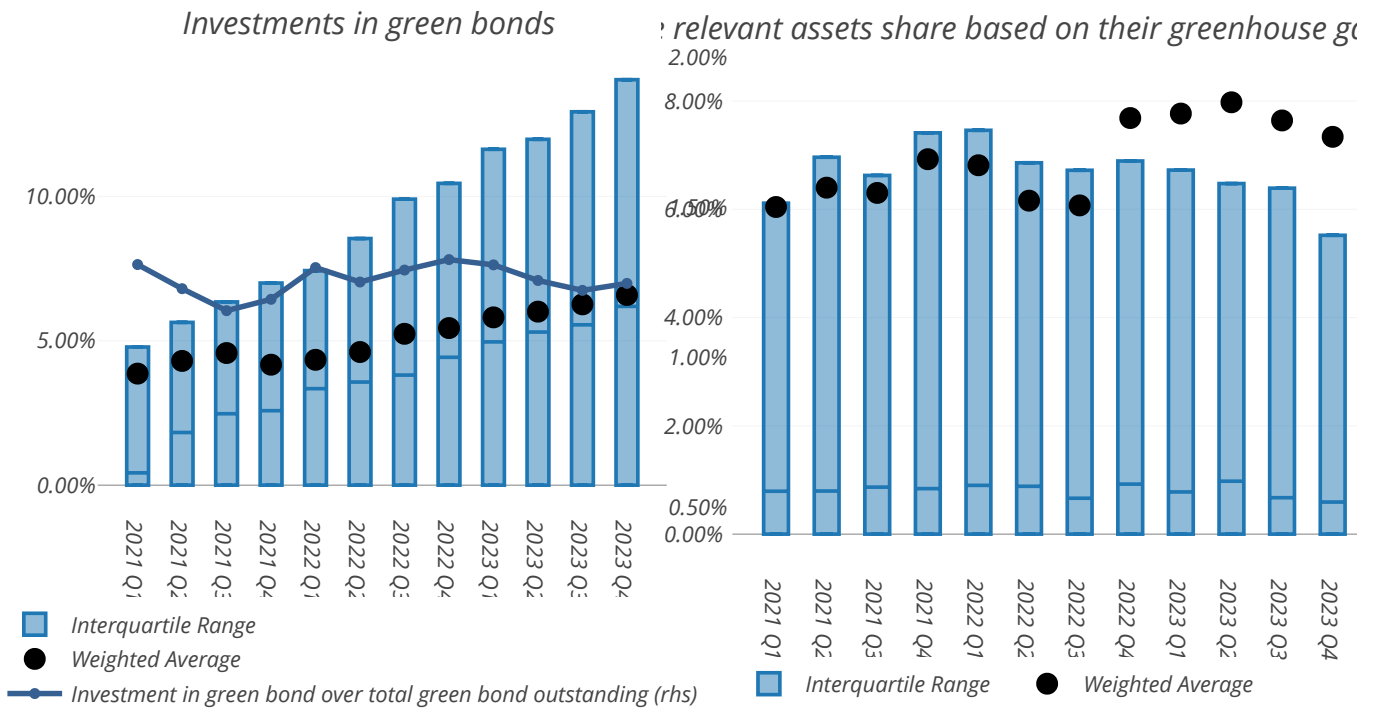


Note: Herfindahl Hirschman index computed on issuer sector excluding collective investment undertakings (CIUs), cash and deposits and property. The indicator includes small IORPs investing mainly via CIUs and thus with a high level of concentration  
 Source: EIOPA Occupational Pensions Regulatory Reporting

Note: Herfindahl Hirschman index computed on issuer country excluding collective investment undertakings (CIUs), cash and deposits, mortgages and loans and property. The indicator includes small IORPs investing mainly via CIUs and thus with a high level of concentration  
 Source: EIOPA Occupational Pensions Regulatory Reporting

# ESG related risks

ESG related risks remain stable at medium level. The median exposure towards climate relevant assets as a share of total equity and corporate bonds slightly declined for the IORP sector in the fourth quarter of 2023, standing at 0.59% (0.67% in the previous quarter). Similarly, the weighted average for the same indicator slightly moved downwards to 7.3%, still pointing to a higher exposure for larger IORPs. The median share of IORPs' investments in green bonds over total corporate bonds increased slightly to 6.1% in Q4-2023 (from 5.5% in Q3). The median share of IORPs' exposure to companies operating along the thermal coal value chain increased, remaining still relatively low (0.35% of total equity and corporate bonds in Q4-2023, compared to 0.26% in Q3). The median of IORPs' investments assessed w.r.t the EU taxonomy - eligible activity (TEL) as a share of total equity and corporate bonds remained stable at 14% in Q4-2023. Similarly, the weighted average for the same indicator was unchanged at 28%, showing a higher exposure for larger IORPs.



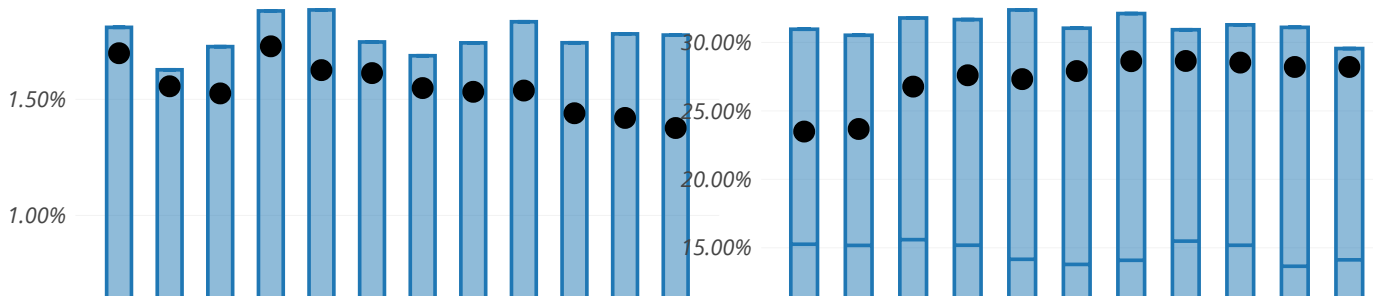
Note: The indicator is calculated as investments in green bonds as a share of total corporate bonds

Source: EIOPA Occupational Pensions Regulatory Reporting and Refinitiv

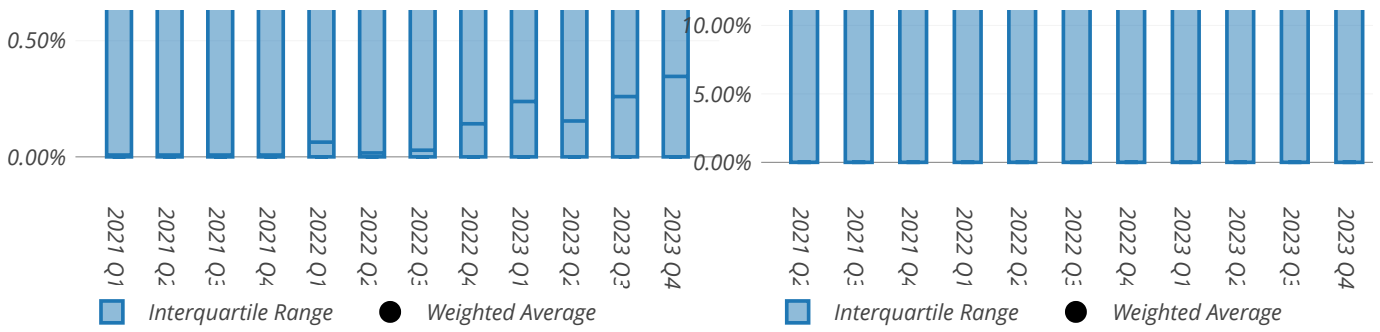
Note: The six climate-relevant sectors (agriculture, fossil fuel, utilities, energy-intensive, transport and housing) based on their greenhouse gas emissions and mapped at NACE Rev2 4-digit level. Due to data limitations, there are assets which cannot be entirely included in the "climate relevant" category and therefore they are currently excluded from the calculation of the indicator leading to a potential underestimation of the risk. The indicator is calculated as climate relevant assets based on their greenhouse gas emissions as a share of total equity and corporate bonds

Source: EIOPA Occupational Pensions Regulatory Reporting

Investments into companies operating along the thermal coal value chain



Institutions for occupational retirement provision (IORPs) Risk Dashboard

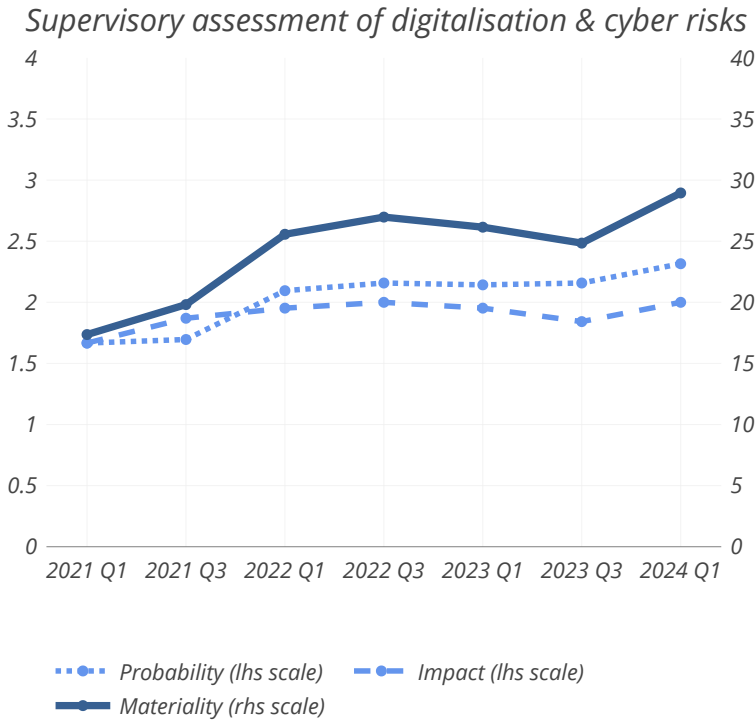


Note: The Global Coal Exit List (GCEL) from Urgewald ([www.coalexit.org](http://www.coalexit.org)) provides coal-related data for around 3300 parents & subsidiaries that are part of the coal value chain or are expanding coal-related business. The indicator is calculated as investments into companies operating along the thermal coal value chain as a share of total equity and corporate bonds  
 Source: EIOPA Occupational Pensions Regulatory Reporting and Urgewald

Note: The EU Taxonomy provides a definition of green activities. Within the EU taxonomy, a Taxonomy-eligible activity (TEL), based on the definition in European law, is an activity that is covered by the Taxonomy. However, a Taxonomy-eligible activity is not necessarily an aligned activity, as it is so only if it meets the relevant technical screening criteria. As such, one could be tempted to use the amount of Taxonomy-eligible activities as a proxy for the potential that a corporate has to improve its Taxonomy alignment. The indicator is calculated as investments assessed w.r.t the EU taxonomy as a share of total equity and corporate bonds  
 Source: EIOPA Occupational Pensions Regulatory Reporting

# Digitalisation & cyber risks

Digitalisation and cyber risks are stable at medium level in the first quarter of 2024. The materiality of these risks for IORPs as assessed by supervisors slightly increased in the first quarter of 2024, reaching the highest level in the last years. Cyber security remained as a main concern.



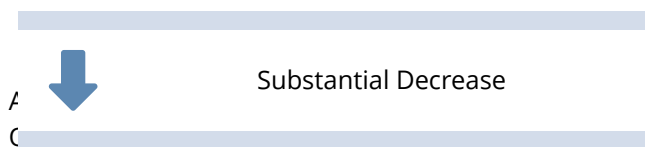
*Note: Scores compiled based on the assessment of probability and impact (lhs: scale from 1 to 4) of digitalisation & cyber risks from National Competent Authorities. The average for each answer across countries is then normalised (rhs: scale from 0 to 100)*

*Source: EIOPA's Pension Bottom-up Survey*

## APPENDIX

Arrows	Trend/Outlook	Colour	Level of Risk
	Substantial increase	Low	
	Increase	Medium	
	Constant	High	
	Decrease	Very High	

## Arrows Trend/Outlook



ris preceding the reference date, while arrows for the months.

### Description of risk categories

#### Macro risks

This category depicts developments in the macro-economic environment that could impact the IORP sector. This category is based on publicly available data on macro variables that may be used for broader macroprudential monitoring and analysis.

#### Credit risks

The category assesses the vulnerability of the IORP sector towards credit risks. To achieve this aim, credit-relevant asset class exposures of the IORPs are combined with the relevant risk metrics applicable to these asset classes.

#### Market & asset return risks

The risk category depicts the main risks IORPs are exposed to on financial markets and the level of asset returns and costs (e.g. administrative, investments and other). For most asset classes these risks are being assessed by analysing both the investment exposure of the IORP sector and an underlying risk metric. The exposures give a picture of the vulnerability of the sector to adverse developments; the risk metric, usually the volatility of the yields of the associated indices, gives a picture of the current level of riskiness.

#### Liquidity risks

Liquidity risk can be defined as the risk that an institution will not be able to meet its payment obligations timely or without generating excessive

cost.

#### Reserve & funding risks

This category aims to assess the level of the own funds of IORPs and the robustness of its technical provisions. This risk category is only relevant for IORPs executing defined benefit pension schemes (DB).

#### Concentration risks

This section assesses different concentration risks IORPs are exposed to via their portfolio investments. It depicts various concentration types.

#### Environmental, Social and Governance (ESG) related risks<sup>1</sup>

ESG risks aim at assessing the vulnerability of the European IORPs market to environmental, social and governance risks such as transition risk.

#### Digitalisation & cyber risks

The category aims at monitoring potential financial stability risks related to an increased digitalisation, which exposes the IORP sector to risks from a digital operational resilience perspective (i.e. cyber security risks).

1. Due to limited data availability, only environmental risks are currently considered in the category. As more data will be available, social and governance risks should be also considered.↔





Handling instructions for documents with security markings:

[https://www.eiopa.europa.eu/sites/default/files/publications/other\\_documents/summary\\_eiopa\\_information.pdf](https://www.eiopa.europa.eu/sites/default/files/publications/other_documents/summary_eiopa_information.pdf)  
([https://www.eiopa.europa.eu/sites/default/files/publications/other\\_documents/summary\\_eiopa\\_information.pdf](https://www.eiopa.europa.eu/sites/default/files/publications/other_documents/summary_eiopa_information.pdf))

EIOPA | Westhafen Tower, Westhafenplatz 1 | 60327 Frankfurt | Germany

Tel: +49 69-951119-20

info@eiopa.europa.eu | <https://www.eiopa.europa.eu> (<https://www.eiopa.europa.eu>)

 [Linkedin \(https://www.linkedin.com/company/eiopa-eu\)](https://www.linkedin.com/company/eiopa-eu)  [Twitter \(https://twitter.com/eiopa\\_europa\\_eu\)](https://twitter.com/eiopa_europa_eu)  [Facebook \(https://www.facebook.com/eiopa.europa.eu\)](https://www.facebook.com/eiopa.europa.eu)  [YouTube \(https://www.youtube.com/channel/UClu5w4xQH-3cSnIZsXslx5Q\)](https://www.youtube.com/channel/UClu5w4xQH-3cSnIZsXslx5Q)