HARDASSETS - Risk Report - January 21, 2026

Key figures

31-Dec-2025
Reporting Date

VaR 15.3%
10d@99.9%

18.9%
Volatility p.a.

1003 kEUR
Base Value

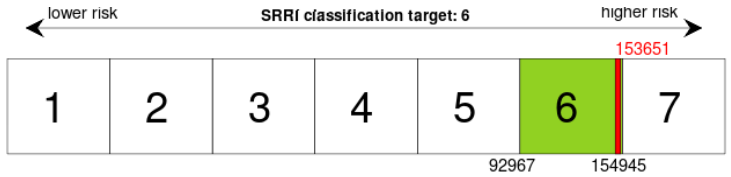
153651 EUR
VaR (abs.)

6.2%
Diversification

Key Risk Indicators

Category	Measure	Target	Actual	Status
Risk	SRRI class	6	6	on track
Risk	VaR Trend	→	↑	action required
Allocation	Total Deviation	< 10%	1%	on track
Allocation	Risk Impact	< 10%	0%	on track
Allocation	Equity Deviation	< 10%	16%	action required
Allocation	Cash	> 0 EUR	3000 EUR	on track
Risk	Country Risk	(very) low	low	on track
Risk	ESG Rating	AAA-A	BBB	action required
Risk	Concentration	low-mid	high	action required
Allocation	Liquidity	high: > 50%	high: 60%	on track

Portfolio Risk Classification



Comments and Assumptions

Notably the following assumptions are made:

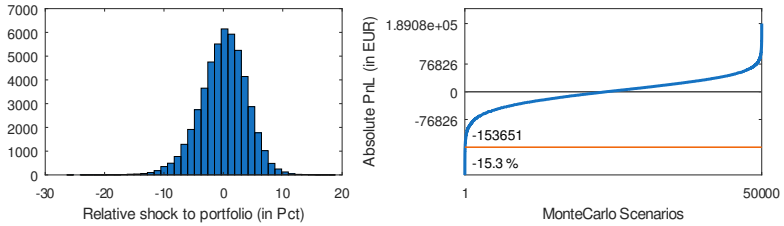
- Runcode for report: 20251231
- Overweight tangible assets for inflation protection. Zero nominal bonds. High volatility expected.

Tax impact

VaR after tax	VaR before Tax	Tax benefit	Tax benefit (rel.)	DTL
153651 EUR	153651 EUR	0 EUR	0.0%	0 EUR

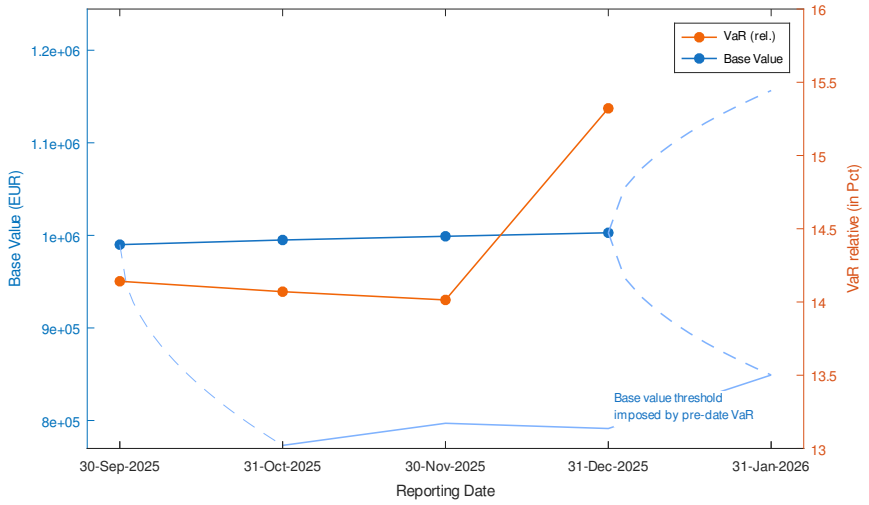
Portfolio Risk Distribution

Visualization of profit and loss distribution in all MC scenarios:



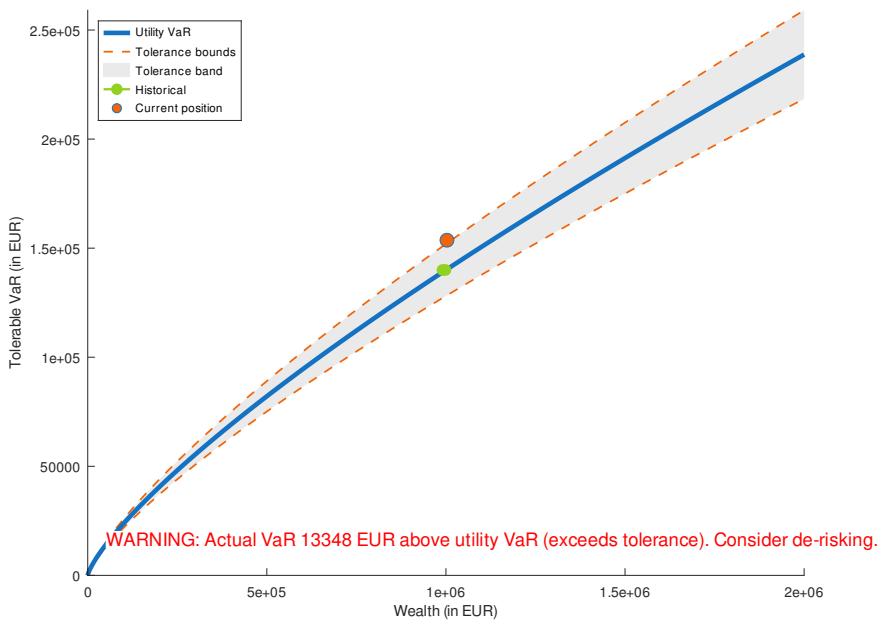
VaR Evolution and Backtesting

A history of portfolio basevalues and relative VaR for past reporting dates is given. The light blue line indicates the lower base value threshold as imposed by pre-date VaR:



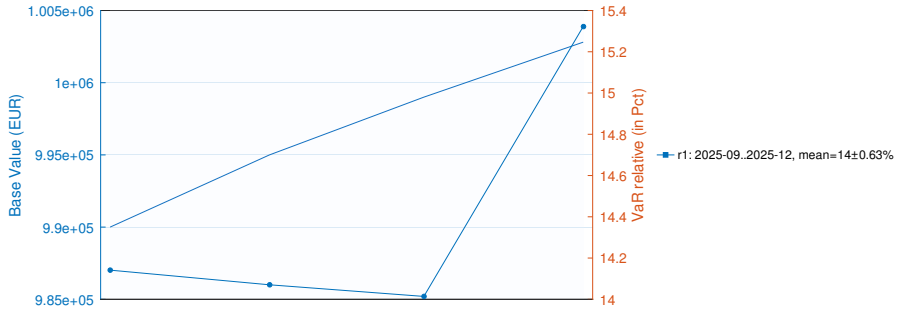
VaR Utility Function

Actual VaR is compared to utlity VaR calibrated by individual logarithmic utility function:



Historical VaR Regimes

Plot full historical monthly VaR with regime color coding:



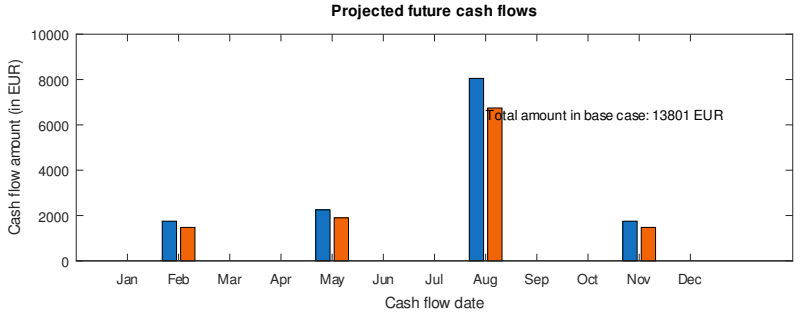
Strategic Asset Allocation

Comparison of portfolio target asset allocation (AA) vs. actual allocation. An estimation of VaR impact induced by the deviation is given both on portfolio and asset class level:

Asset Class	Basevalue	Target AA	Actual AA	Deviation	Risk Impact
Commodity	299710 EUR	30.0%	29.9%	-1132 EUR	-108 EUR
Real Estate	250014 EUR	25.0%	24.9%	-688 EUR	-108 EUR
Equity	350029 EUR	35.0%	34.9%	-953 EUR	-153 EUR
Alternative	100054 EUR	10.0%	10.0%	-227 EUR	-67 EUR
Cash	3000 EUR	0.0%	0.3%	3000 EUR	-0 EUR
Assets	1002808 EUR	100%	100%	6000 EUR	-436 EUR

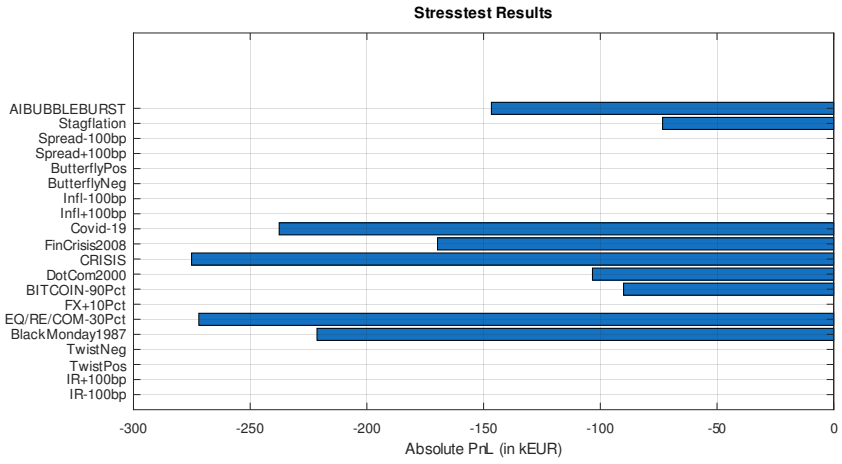
Liquidity Projection

Future cash flows from the portfolio including income, expenses, dividends and coupon payments for the next 12 month are forecast to allow for reinvesting planing. Base scenario cash flows are shown in blue, while the cash flows at risk are given in red:



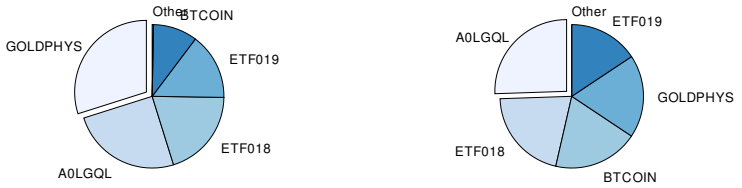
Stress Testing

Portfolio profit and losses for both parametric and historic stress scenarios:



Largest and Riskiest Positions

Main position contributions to portfolio basevalue (left chart) and portfolio VaR (right chart):



Asset Class and Currency Decomposition

Portfolio risk breakdown into asset classes (AC), currencies and their VaR decomposition:

AC / Currency	Basevalue	Pct.	Standalone VaR	Decomp VaR	Pct.
Portfolio	1002808 EUR	100.0%	153651 EUR	153651 EUR	100.0%
Commodity	299710 EUR	29.9%	31862 EUR	28704 EUR	18.7%
Real Estate	250014 EUR	24.9%	41640 EUR	39232 EUR	25.5%
Equity	350029 EUR	34.9%	59398 EUR	56163 EUR	36.6%
Alternative	100054 EUR	10.0%	30868 EUR	29551 EUR	19.2%
Cash	3000 EUR	0.3%	0 EUR	-0 EUR	-0.0%
EUR	1002808 EUR	100.0%	153651 EUR	153651 EUR	100.0%

Position Decomposition

Portfolio breakdown of the riskiest positions and their VaR decomposition:

Position ID	Basevalue	Standalone VaR	Decomp VaR	Pct.	SRRI
Portfolio	1002808 EUR	153651 EUR	153651 EUR	100.0%	6
A0LGQL	250014 EUR	41640 EUR	39232 EUR	25.5%	6
ETF018	200010 EUR	33941 EUR	32092 EUR	20.9%	6
BTCOIN	100054 EUR	30868 EUR	29551 EUR	19.2%	7
GOLDPHYS	299710 EUR	31862 EUR	28704 EUR	18.7%	5
ETF019	150019 EUR	25457 EUR	24071 EUR	15.7%	6
CASHEUR	3000 EUR	-0 EUR	-0 EUR	-0.0%	1
Other	-0 EUR	–	-0 EUR	-0.0%	–

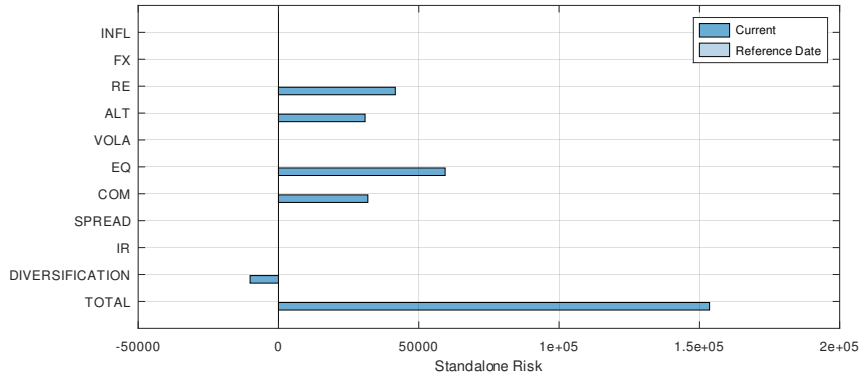
Diversified and Standalone Risk

Risk breakdown into diversified and standalone risk components:

Risk Capital 10d @99.9% (in EUR)	12/25 base	11/25 base	Diff
Total diversified risk after tax and add-on	153651	0	+153651
Capital add-on	0	0	+0
Total diversified risk after tax	153651	0	+153651
Loss absorbing capacity of deferred taxes	0	0	+0
Total diversified risk before tax	153651	0	+153651
Diversification impact	-10116	0	-10116
Diversification benefit	-6.18%	0.00%	+6.18%-p.
Sum of standalone risks	163767	0	+163767
Interest rate risk	-0	0	-0
Volatility risk	-0	0	-0
Inflation risk	-0	0	-0
Equity risk	59398	0	+59398
Alternative risk	30868	0	+30868
Real Estate risk	41640	0	+41640
Currency risk	-0	0	-0
Commodity risk	31862	0	+31862
Credit risk sum (spread & default)	-0	0	-0

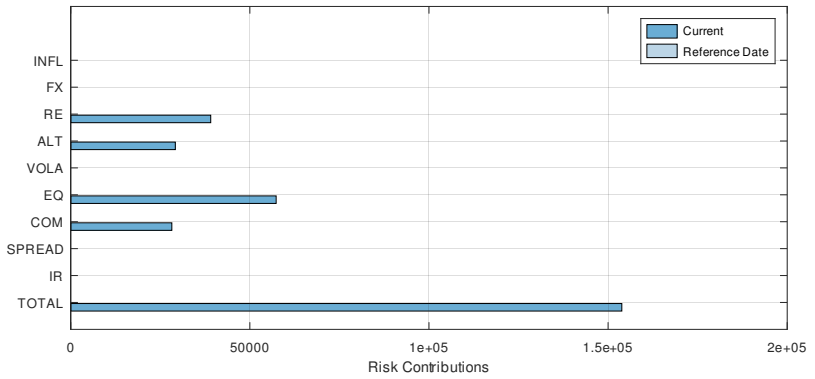
Standalone Risk

Graphical representation of standalone risk components:



Risk Contribution

Graphical representation of standalone risk contributions:



What-If Analysis

The incremental VaR measures the effect of positions on the portfolio VaR after an initial hypothetical investment, while the marginal VaR calculates the change in the portfolio VaR when an additional 1000EUR is invested into the position (or when divested):

Position ID	Basevalue	Incremental VaR	Marginal VaR
A0LGQL	250014 EUR	38002 EUR	157 EUR
ETF018	200010 EUR	32219 EUR	160 EUR
BTCOIN	100054 EUR	26503 EUR	296 EUR
GOLDPHYS	299710 EUR	27773 EUR	96 EUR
ETF019	150019 EUR	24059 EUR	160 EUR
CASHEUR	3000 EUR	0 EUR	0 EUR

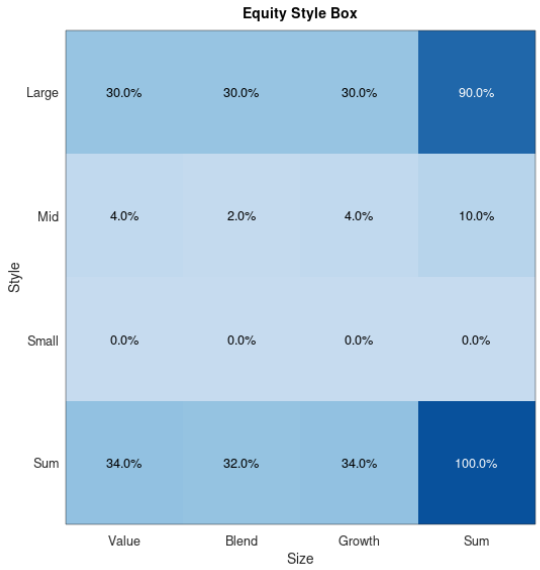
Equity Region Allocation

Comparison of equity target asset allocation (AA) vs. actual allocation. An estimation of VaR impact induced by the deviation is given both on equity asset class and region level:

Region	Basevalue	Target AA	Actual AA	Deviation	Risk Impact
Europe	40002 EUR	15.0%	11.4%	-12502 EUR	-2006 EUR
NorthAmerica	134007 EUR	40.0%	38.3%	-6005 EUR	-964 EUR
Pacific	26001 EUR	10.0%	7.4%	-9002 EUR	-1444 EUR
EmergingMarkets	150019 EUR	35.0%	42.9%	27509 EUR	4414 EUR
Equity	350029 EUR	100.0%	100.0%	55018 EUR	-0 EUR

Equity Style Allocation

Allocation size (large/mid/small cap) vs. style (value/blend/growth) for all equity positions:



Fixed Income Style Allocation

The allocation of ratings and the effective duration, divided into three buckets, are provided for all fixed income asset positions:

Sensitivity	Overall Portfolio
Effective Duration	0.0
Effective Convexity	0.0

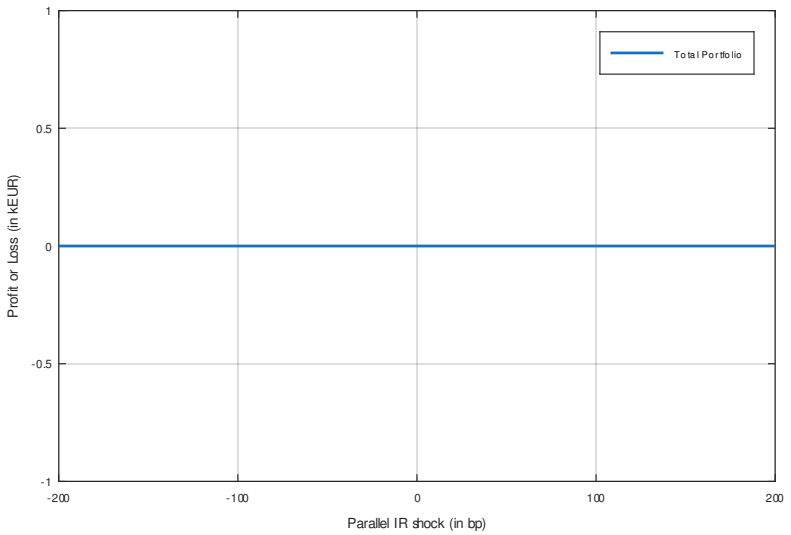
Asset Credit Rating	Allocation	Eff. Duration	Asset Allocation
High (AAA-AA)	100.0%	Low<3	NaN%
Mid (A-BBB)	0.0%	Mid3-7	NaN%
Low (BB-C)	0.0%	High>7	NaN%
Sum	100.0%	Sum	NaN%

Bond Yield-to-Maturity

Portfolio bond exposure, yield-to-maturity and effective duration are given:

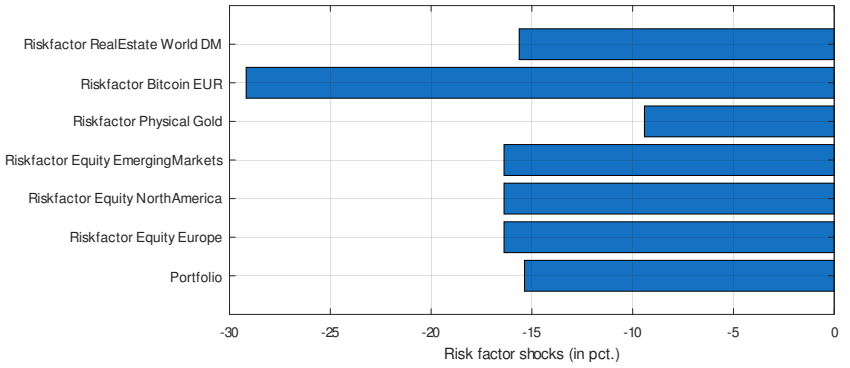
Bond Exp.	Yield to Mat.	Eff.Dur.
0 EUR	NaN%	NaN

IR Sensitivity Analysis

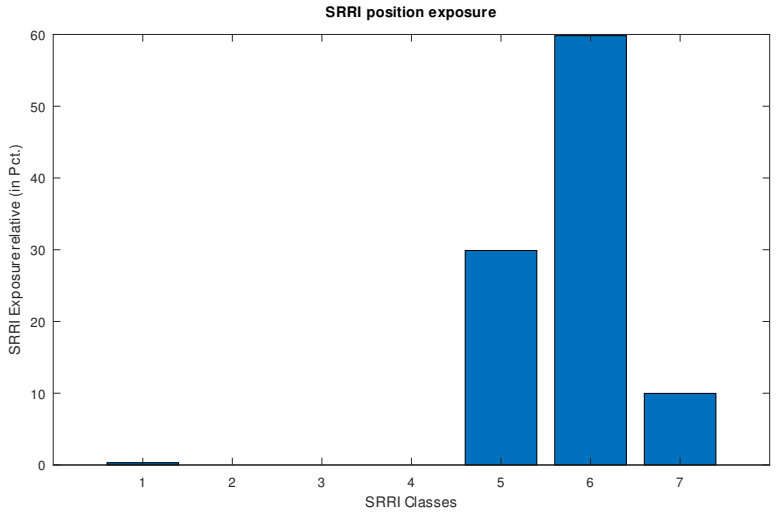


VaR Risk Factor Shocks

Average tail scenario shocks in MC VaR scenarios for selected equity, forex, alternative, commodity and real estate risk factors are shown:

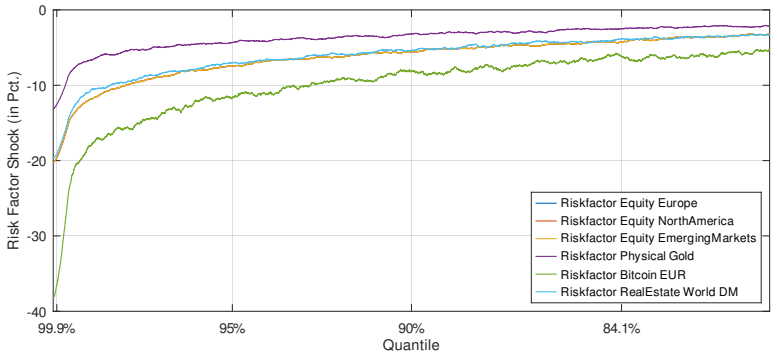


SRRI Asset Position Exposure



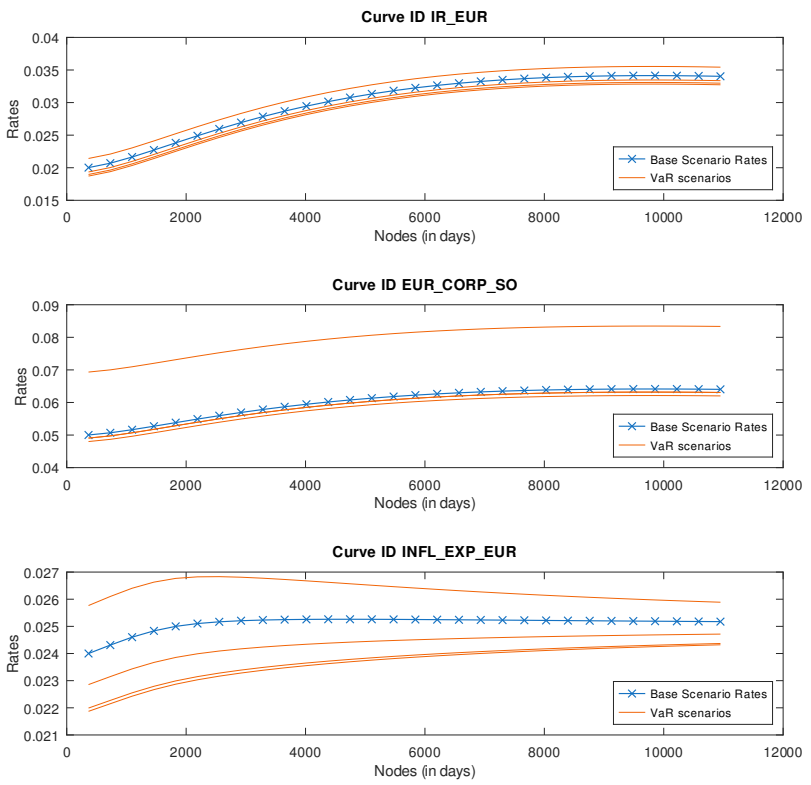
Risk Factor Quantile Dependence

Tail shocks for selected interest rates, equity, alternative, commodity and real estate risk factors are shown. Most relevant quantiles (e.g. VaR 99.9% or Standard Deviation 84.1%) allow for analysis of exposure transitions.



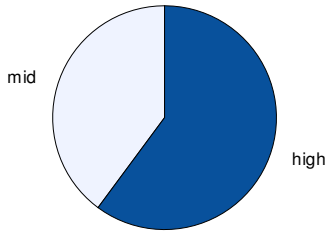
Interest Rate and Inflation Term Structure

A summary of risk free interest rate and inflation expectation term structures under current market conditions as well as in selected tail scenarios show portfolio interest rate sensitivity:



Liquidity Classification

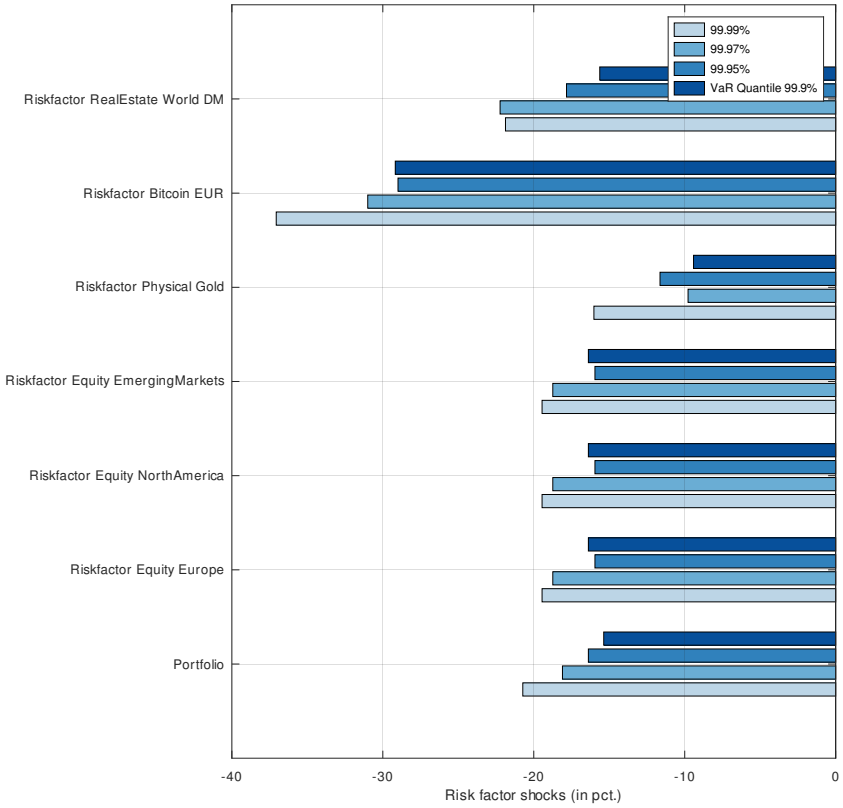
Exposure of all financial assets to the three liquidity classes high, mid and low:



high	tradeable within one day (e.g. cash, ETF or bonds/stocks traded via exchange)
mid	tradeable within one week (e.g. physical commodities or savings account)
low	tradeable within more than one week and / or penalty for termination of contract (e.g. pension scheme)

Reverse Stress Testing

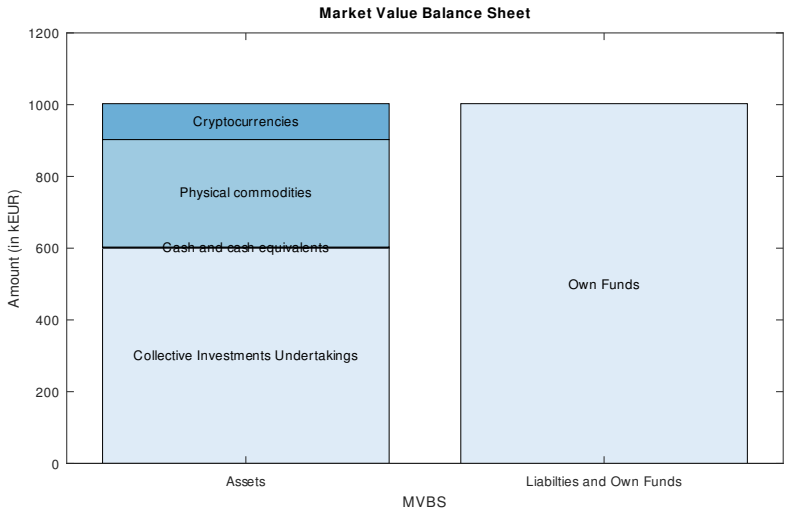
Reverse stress testing looks at specific scenario shocks, which exceeds given limits. In order to determine such extreme shock events which will exceed VaR, MC tail scenarios based on VaR, 99.95%, 99.97% and 99.99% quantiles for certain risk factors are analyzed. For comparison purposes the portfolio VaR shock itself is included.



Market Value Balance Sheet (MVBS)

Assets	in EUR
Investments	600044
Collective Investments Undertakings	600044
Cash and cash equivalents	3000
Physical commodities	299710
Cryptocurrencies	100054
Total Assets	1002808

Own Funds	
Own Funds before tax	1002808
Deferred tax	0
Own Funds after tax	1002808



Global Economic Stress Scenarios

A global risk is defined as an uncertain event or condition that, if it occurs, can cause significant negative impact for several countries or industries within the next 10 years. The economic risk scenarios are taken from the Global Risk Report as published by the World Economic Forum (www.weforum.org/reports/the-global-risks-report-2019). A possible qualitative risk mitigation approach is added to each of the scenarios:

Asset bubbles in a major economy Unsustainably overpriced assets such as commodities, housing, shares, etc. in a major economy or region → can be mitigated through diversification and limit setting.

Deflation in a major economy Prolonged near-zero inflation or deflation in a major economy or region → can be mitigated through global diversification and investing in e.g. commodities and crypto-currencies.

Failure of a major financial mechanism or institution Collapse of a financial institution and/or malfunctioning of a financial system that impacts the global economy → can be mitigated through reduction of concentration risks (diversification of financial counterparties and understanding of underlying instrument mechanisms).

Failure/shortfall of critical infrastructure Failure to adequately invest in, upgrade and/or secure infrastructure networks (e.g. energy, transportation and communications), leading to pressure or a breakdown with system-wide implication → see last item

Fiscal crises in key economies Excessive debt burdens that generate sovereign debt crises and/or liquidity crises → can be minimized through (regional) diversification

High structural unemployment A sustained high level of unemployment or underutilization of the productive capacity of the employed population → can be minimized through (regional) diversification

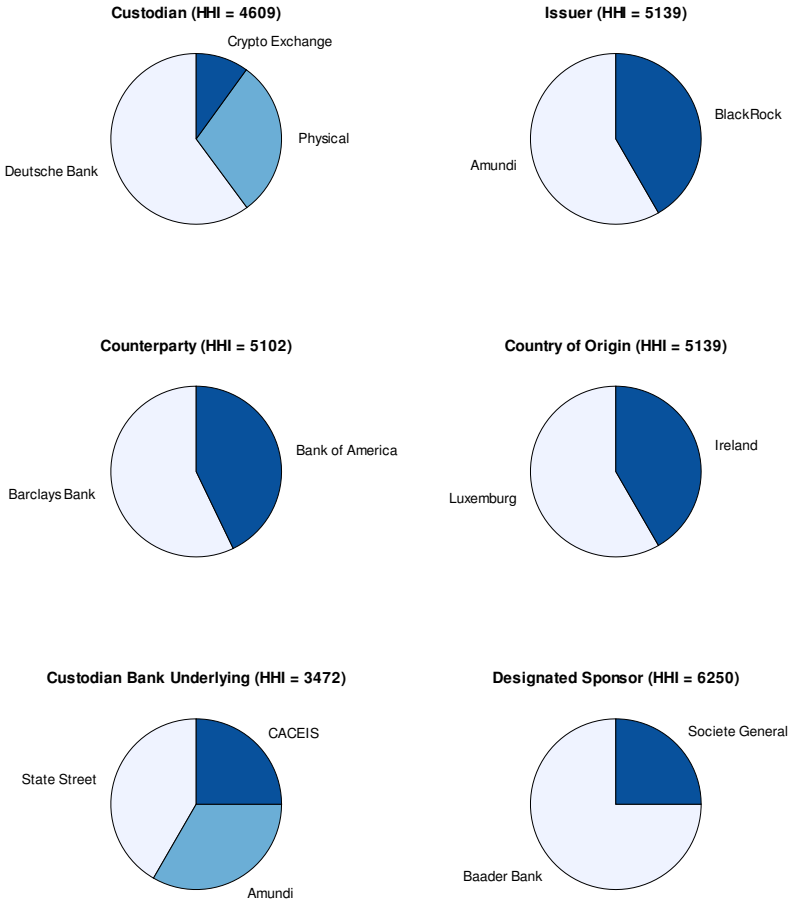
Illicit trade Large-scale activities outside the legal framework such as illicit financial flows, tax evasion, human trafficking, counterfeiting and/or organized crime that undermine social interactions, regional or international collaboration, and global growth → can be minimized through (regional) diversification

Severe energy price shock Significant energy price increases or decreases that place further economic pressures on highly energy-dependent industries and consumers → can be minimized through (regional) diversification and investment into commodities and alternative assets

Unmanageable inflation Unmanageable increases in the general price levels of goods and services in key economies → can be minimized through (regional) diversification and investment in e.g. equity assets and gold

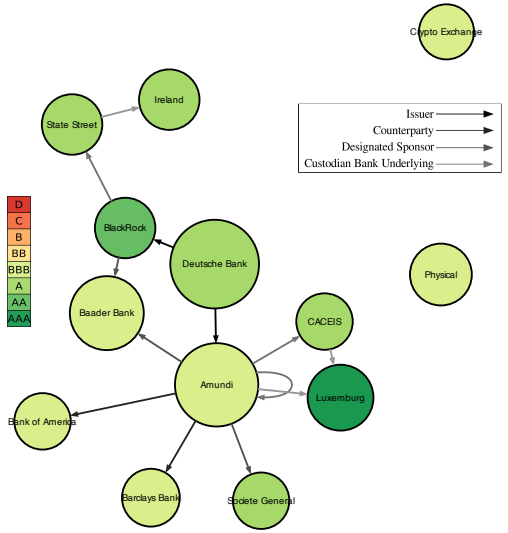
Concentration Risk Charts

Pie charts for all entities clusterd by topic highlight concentration risk of portfolio. Hirschmann-Herfindahl Index (HHI) gives indication of concentration level:



Concentration Risk Network

Concentration risk network for all entities related to the portfolio (e.g. issuer, custodian bank, counterparty, custodian bank of the underlying, country of origin) including their credit rating (see embedded legend):



Issuer Exposure

Issuer	Exposure	Pct.
Amundi	350029 EUR	34.9%
BlackRock	250014 EUR	24.9%
Total	600044 EUR	60.0%

Net Derivative / Swap Counterparty Exposure

Counterparty	Net Exposure	Pct.
Barclays Bank	10000 EUR	1.0%
Bank of America	7501 EUR	0.7%
Total	17501 EUR	2.0%

Custodian Exposure

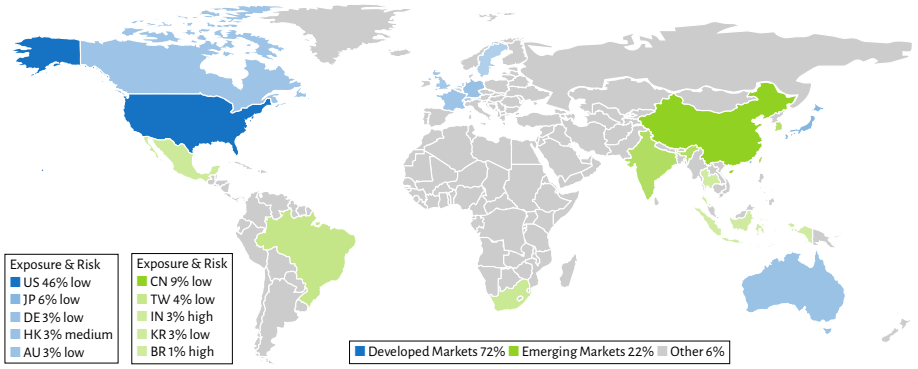
Custodian	Exposure	Pct.
Deutsche Bank	603044 EUR	60.1%
Physical	299710 EUR	29.9%
Crypto Exchange	100054 EUR	10.0%
Total	1002808 EUR	100.0%

Custodian Bank Underlying Exposure

Custodian Bank Underlying	Exposure	Pct.
State Street	250014 EUR	24.9%
Amundi	200010 EUR	19.9%
CACEIS	150019 EUR	15.0%
Total	600044 EUR	59.8%

World Exposure and Country Risk Map

World exposure and risk map for all financial assets (e.g. equity, saving deposits and other fixed income instruments) including a country risk assessment according to ND-GAIN country readiness risk methodology:



SRRI Methodology

SRRI stands for **S**ynthetic **R**isk and **R**eward **I**ndicator and classifies the volatility of financial instruments or portfolios. The SRRI was developed by the European Securities and Markets Authority (ESMA) and is mandatory for all financial instruments to be included in the Key Information Document (KID). The isolated view of SRRI classes of single instruments is limited, diversification or investment type (speculative vs. hedging) can only be taken into account in a portfolio context:

Risk Class	Volatility (p.a.)	Description
1	0%-0.5%	very conservative, inflation risk likely
2	0.5%-2%	conservative portfolio, mainly bonds
3	2%-5%	moderatly conservative, more bonds than equity
4	5%-10%	balanced growth portfolio, well diversified
5	10%-15%	moderatly aggressive, mostly equities
6	15%-25%	aggressive portfolio consisting of single stocks
7	>25%	speculative leveraged portfolio, little diversification

Disclaimer

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Calculation Methodology

Value-at-Risk (VaR) is defined as a monetary loss which the portfolio won't exceed for a specific probability on a certain time horizon. The *expected shortfall* (ES) metric gives the average loss which occurs in all remaining cases where losses exceeds the VaR.
The calculation methodology is specified as a Monte-Carlo (MC) full valuation approach based on 50000 scenarios on a 10 day time horizon and a 99.9%) confidence intervall. The 10 day time horizon should reflect an expected one-time event in an investors entire life. Risk factors are modeled by multivariate cumulative distribution function, where both the marginal probability distribution and the codependence structure (given by t-copula) are calibrated on historical time series.
The diversification benefit is defined as relative reduction in VaR of the aggregated portfolio compared to sum of standalone VaRs of all positions.
Stresstesting is a complementary risk calculation methodology which shows sensitivities of the portfolio value with respect to pre-defined historic or parametric scenarios. Unlike the MC VaR, where correlated random shocks are applied to the risk factors, during stresstesting manually pre-defined shocks are applied. Explicit shock values are given for historical scenarios:

Stresstest	Applied shocks
Financial Crisis 2008	Equity (-50%), Gold (+35%), REITs (-40%), Interest Rates@1Y (-200bp),
Covid-19	Equity (-30%), Gold (-10%), REITs (-40%), Interest Rates@1Y (-50bp), Cryptoassets (-40%), Inflation Expectation@5Y (-20bp), Volatility Equity (+90%), FX EUR/USD (+5%)
CRISIS	Equity (-40%), Gold (+20%), Allianz (-60%), REITs (-40%), Interest Rates@5Y (+250bp), Cryptoassets (-70%), Inflation Expectation@5Y (+500bp), Corporate Spread (+200bp), FX EUR/USD (-10%)
Stagflation	Equity (-25%), Gold (+10%), REITs (-5%), Interest Rates@10Y (+250bp), Cryptoassets (-25%), Inflation Expectation@5Y (+300bp), Corp Spreads (+60bp)
Asian Flu 1997	Equity DM (15%), Equity EM (-30%) Interest Rates (IR)@1Y EUR (+100bp), IR@1Y USD (-100bp), FX EUR USD (-7%), FX EUR THB/KRW (-50%)
DotCom 2000	Equity (-30%), Interest Rates@1Y (+100bp), Volatility Equity (+150%)
Black Monday 1987	Equity EM (-50%), Pacific (-40%), Europe (-30%) NA (-25%), FX EUR/USD (-7%), Gold (-8%)
Twist Positive	IR@1Y (+100bp), IR@20Y (-200bp)
Twist Negative	IR@1Y (-100bp), IR@20Y (+200bp)
Butterfly Positive	IR@1Y (+200bp), IR@10Y (-100bp), IR@20Y (+200bp)
Butterfly Negative	IR@1Y (-200bp), IR@10Y (+100bp), IR@20Y (-200bp)

Assessing country risk

The ND-GAIN country sub-index *readiness score* measures a country's ability to make effective use of investments to adaptions actions because of safe and efficient business environment. The three components economic (doing business and investment climate based on Worldbank data), governance (stability of society, regulatory quality, rule of law) and social (social inequality, infrastructure) are combined into one score. See https://gain.nd.edu for further information.

Action recommendation (experimental)

The following actions are recommended by a LLM and have been generated by AI. This is an experimental feature only, apply common sense in following actions:
No LLM recommendations available. LM Studio server is not running. Please start the Local Server in LM Studio.