



Multi Asset Global Opportunities Fund

Portfolio Management Division

May 2026

Fund Description

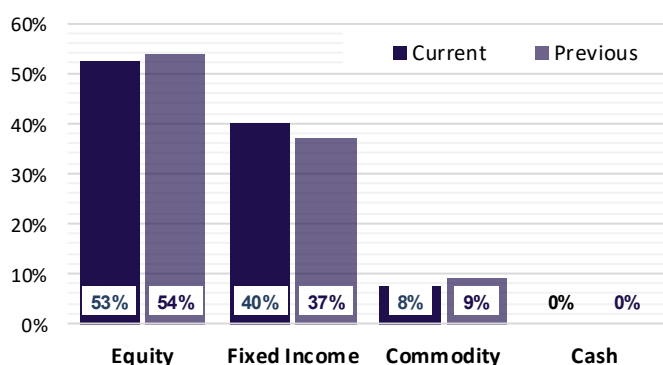
The Multi Asset Global Opportunities Fund is a virtual, actively managed portfolio run by Minerva Investment Management Society. It invests in listed equities, fixed income and commodities delivering long-term capital growth while controlling volatility. The portfolio is constructed through fundamental analysis and macroeconomic views, with the ability, on a tactical basis, to take short-term positions where the risk-reward profile is compelling.

Diversification is pursued across geographies, currencies, sectors and asset classes. Position sizing is guided by marginal risk contribution, correlation and liquidity. We typically target 30 holdings to maintain breadth while ensuring analytical depth. Derivatives are used solely for risk management, specifically to hedge identified tail risks and for currency hedging. They are not employed to create net leverage or to add directional exposure.

The portfolio is rebalanced semi-annually, with ad-hoc reviews to reposition around market shocks and dislocations. Instruments are limited to public markets; ETPs may be used to access niche exposures where this is the most efficient implementation route.

Our investment stance is anchored in open economic integration and free trade, enabled by the free movement of capital. Accordingly, no geopolitical tension, in and of itself, will preclude an allocation where fundamentals, valuation and liquidity justify it.

Asset Classes Weights



Investment Approaches

Top-down approach

Starting from our macroeconomic outlook, analysts identify industries or geographies and analyse the leading operators. Priority is given to durable growth potential, resilient balance sheets, cash generation and capital allocation when selecting candidates for the Multi Asset portfolio.

Bottom-up approach

If a security stands out to one of the investment analysts, a detailed analysis is to be done with a bottom-up approach. An internal discussion follows to contemplate the validity to the suggested investment, and to assess the fitting within the portfolio in terms of risk-return contribution and diversification.

Equity Research Team

Equity positions may originate from recommendations by Minerva IMS's Equity Research Team. Any proposal is reviewed incorporating later developments, company news-flow and valuation changes since the publication of the research note, before inclusion and sizing within the portfolio.



Head of Asset Management

Riccardo Colombo: riccardo.colombo@studboconni.it

Head of Portfolio Management

Aleksandar Georgiev: aleksandar.georgiev@studboconni.it

Portfolio Manager

Edgar Coates: edgar.coates@studboconni.it

Portfolio Analysts

Francesco Catalanotti: francesco.catalanotti@studboconni.it

Michele D'Andrilli: michele.dandrilli@studboconni.it

Sofia M. V. De Palma: sofia.depalma@studboconni.it

Lorenzo Larosa: lorenzo.larosa@studboconni.it

Anton Michels: anton.michels@studboconni.it

James Moser: james.moser@studboconni.it

Adriana Ovcharova: adriana.ovcharova@studboconni.it

Matteo Persico: matteo.persico@studboconni.it

Gabriele Traina: gabriele.traina@studboconni.it

Raffaele M. Valensise: raffaele.valensise@studboconni.it

About Minerva Investment Management Society

Minerva Investment Management Society (MIMS) is Bocconi University's leading student association dedicated to asset management. Founded in 2017, MIMS's Portfolio Management Division designs, manages and reports on two proprietary, fully disclosed student-run funds. The Division collaborates closely with the Investment Research, Macro Research, Equity Research and Quant teams to source ideas, and monitor risk.



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Performance Summary

	ITD ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	Vol	Sharpe ²
2020	15,1%	+0.1%	-0.3%	+0.1%	+1.4%	+3.4%	+1.9%	-1.8%	+1.2%	-1.4%	+2.2%	+5.0%	+2.6%	+15,1%	6,9%	2,18
2021	45,2%	+3.0%	+2.3%	+1.5%	+0.7%	+0.5%	+2.4%	+2.0%	+1.5%	-2.3%	+4.7%	+2.4%	+4.9%	+26,1%	6,6%	3,94
2022	35,7%	-2.0%	+0.4%	+2.1%	-2.8%	-0.2%	-7.8%	+6.5%	+5.1%	-9.2%	+3.7%	+2.9%	-4.1%	-6,6%	17,1%	-0,53
2023	36,6%	+0.2%	-2.1%	-0.3%	-0.3%	-1.0%	+1.3%	-1.5%	+0.1%	-3.7%	-0.7%	+7.3%	+1.8%	+0,7%	9,4%	-0,49
2024	38,4%	+0.5%	+0.2%	+1.6%	-0.4%	+0.4%	-0.1%	+0.7%	0.0%	-0.4%	-0.2%	+0.9%	-1.9%	+1,3%	3,0%	-1,24
2025	58,8%	+0.6%	+4.5%	-3.3%	+1.6%	+1.7%	-0.2%	+0.2%	+2.7%	+2.1%	+3.7%	-0.01%	+0.4%	+14,8%	7,1%	1,51
2026	69,9%	+5.8%	+1.1%	-2.0%	+4.1%									+9,1%	11,8%	0,67

Given its dynamic, opportunity-driven mandate and its wide investment universe, the portfolio does not have a reference benchmark³ upon which to calculate the alpha.

Fund Information

Fund Inception	Jan 2020
Fund AuM 05.05.2026	€12.35m
Strategy	Multi Asset
Geography	Global
Ultimate Decision Maker	Portfolio Manager

Key Statistics (ITD)

Ann. Return	8.7%
Ann. Volatility	7.0%
Beta⁴ to STOXX 50	0.30
Beta⁴ to S&P 500 (EUR)	0.34
Beta⁴ to MSCI China (EUR)	0.13

Key Statistics (last 12M)

Return	21.3%
Ann. Volatility	7.5%
Sharpe Ratio¹	2.32
6m Turnover	42.8%
12m Turnover	63.0%



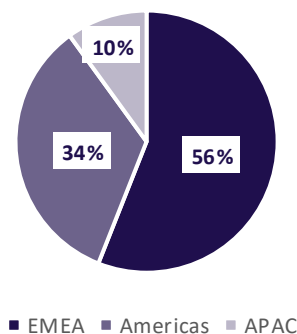
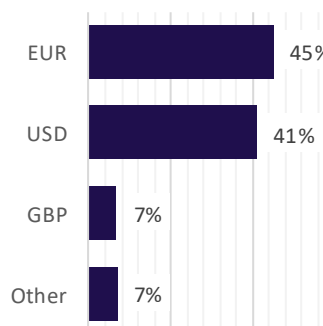
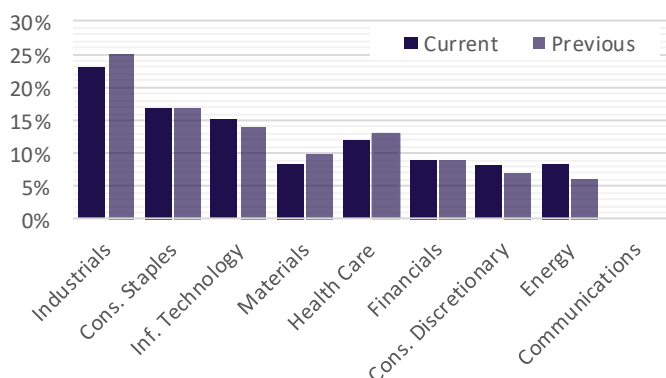
Update On Performance

Since our last report, portfolio NAV increased from €12,082,922 to €12,348,603. This is a 2.20% return, equivalent to 15.24% annualized in EUR. The fund's YTD return stands at 9.1%, exceeding the Euro STOXX 50, the S&P 500, and the MSCI China in EUR terms. This outperformance has been accompanied by relative improvement in risk-adjusted metrics: while 1-year volatility increased to 11.8%, the Sharpe ratio also increased to 0.67, perhaps reflecting an improved portfolio positioning despite a tumultuous economic landscape.

Methodological Note

The analysis considered the cumulative gain over the entire period since inception. Stock dividends are reinvested at the end of the day in which payments are received. The fund value is measured at the close of each trading day. Corporate events, dividend reinvestment and fund rebalancing are carried out at the market close.

Portfolio Breakdown by Sector⁵, Currency⁶, Geography⁷



1. ITD: Inception-to-date. Inception = 31/1/2020, Date = 05/05/2026.

2. Sharpe Ratio computed with US 3-Months Treasury Bills Yields as risk-free rate proxy.

3. Considering multi-strategy absolute-returns (HFRI index) would be the best proxy, but still far from our long-only no-leverage strategy.

4. Computed over monthly returns ITD.

5. Sector breakdown among solely equities.

6. Unhedged exposure: USD includes HKD (pegged) EUR includes DKK (pegged).

7. Commodities are excluded since prices are determined by global factors.



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Rebalancing Rationale & Details

As per fund approach, every 6 months the portfolio is rebalanced. We monitor the evolution of our securities' prices in depth, and when they have reached our target or we recognize that they are positioned sub-optimally due to changing economic conditions, we substitute them with other securities that have higher potential.

Equities

We reassessed the equity sleeve through the lens of a stagflationary, supply-driven macro regime, where input cost pressure, constrained policy flexibility, and currency dynamics are compressing margins. We reduced our overall equity exposure and reallocated the sleeve towards assets with more resilient demand profiles and lower sensitivity to input cost volatility and dampening global growth.

We have decreased our exposure to Eurozone exporters, where a stronger forward EUR and elevated energy costs provide structural obstacles to ongoing profitability, insufficiently priced in their markets. Conversely, we have tilted the portfolio towards companies with stronger pricing power (Amazon) in supply-constrained industries (TotalEnergies, Nanya), so that the equity sleeve is more concentrated around defensible cash flows with selected macro alignment.

Fixed Income

Our fixed income thesis is the purest realisation of our macroeconomic positioning. We have shortened our portfolio duration significantly with a view to a global bear steepening, while reallocating away from belly-duration Eurozone periphery sovereigns. Similarly, we have increased holdings in short-end IG sovereigns with limited near-term refinancing pressure, a strong domestic investor base, a high share of local-currency funding, lower dependence on unstable foreign inflows, and lower vulnerability to imported energy inflation. Our conviction is such that we have increased our exposure to fixed income by 3%.

Commodities

Our commodities positioning reflects selective conviction rather than broad asset class exposure. We maintain our uranium allocation in full, supported by an unchanged structural thesis and the secular re-acceleration of nuclear capacity buildout. We have reduced our gold position by 1.5%. Gold is behaving differently, with speculative crowding becoming the dominant driver of near-term price action, displacing its role as a macro hedge and "safe-haven" asset. Moreover, our base case of sustained positive real yields present a fundamentally bearish 6-month backdrop for the metal and hence trim our exposure. Beyond these, while we considered positions in industrial metals and energy, in the absence of a differentiated bottom-up thesis with a clear portfolio role, we concluded that commodity additions were return-dilutive at this stage of the cycle.

- ↗ New Position Added
- ⬆ Weight increase
- ↘ Position Closed
- Weight Decrease

Assets Entries, Weight Increases

- ↗ +5.0% Kingdom of Denmark 2.00% Nov-2028
- ↗ +5.0% Perù 2.84% Jun-2030
- ↗ +4.0% Kingdom of Sweden 0.75% May-2028
- ↗ +2.5% TotalEnergies
- ↗ +1.0% Nanya Technology
- ↗ +1.0% Amazon
- ↗ +0.0% EUR/USD 3M FX Swap

+18.5% Total

Assets Removals, Weight Reductions

- ↘ -4.0% BTP 2.9% Sep-2038
- ↘ -4.0% Spain Bonos 3.45% Oct-2034
- ↘ -3.0% OAT 1.25% May-2036
- ↘ -2.0% Caterpillar Inc.
- ↘ -1.5% Airbus
- -1.5% Gerdau
- -1.5% Gold
- -1.0% Novo Nordisk A/S

-18.5% Total

Equity Portfolio Concentration

# Stocks	% of Portfolio	% of Equity Sleeve
Top 5	15.75%	30.58%
Top 10	28.25%	54.85%
Top 20	46.50%	90.29%

Our View For The Next Six Months



Major CBs to hold rates due to persistent inflationary pressure owing to continued conflict in the Middle East.



Continued AI and defence narratives contributing to further market concentration despite perceived overvaluation.



Energy supply risk anchoring commodity volatility



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Equity Investments – Due Diligence Summaries

Novo Nordisk A/S

Ticker	Currency	Sector	PnL ¹	Δ Weight
NVO	DKK	Healthcare	+6.95%	-1.0%

Novo Nordisk is a Danish pharmaceutical company focused on diabetes, obesity, and other chronic disease treatments, with a global leadership position in insulin and GLP-1 therapies.

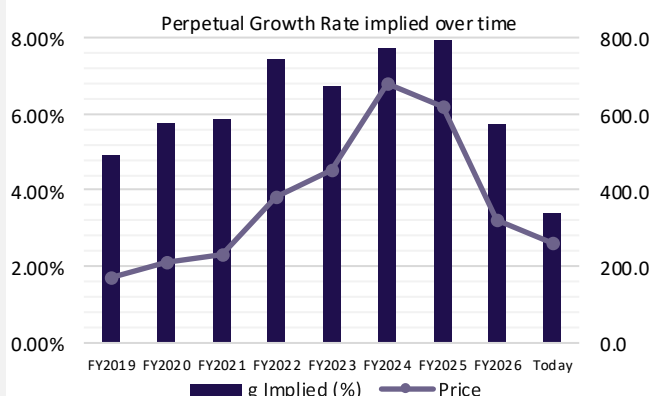
Following the prior buy into weakness, the position is up ~7%, allowing risk to be rebalanced without selling into drawdowns. Near-term price action remains fragile, with returns likely driven by expectations around insurance coverage, pricing and reimbursement, and who qualifies for treatment. A full exit is not warranted because the long-term franchise thesis remains intact: structural obesity demand and Novo's manufacturing scale continue to underpin competitive advantage. A trim therefore reduces short-term drawdown sensitivity and preserves flexibility to re-add at a more asymmetric entry.

Core Analysis:

Market-implied expectations have reset: the implied perpetual growth rate embedded in the current price is ~3.37% versus ~7.71–7.91% through FY2024–FY2025. At DKK 257.90, the valuation decomposition assigns roughly DKK 43.7/sh to book value and DKK 131.3/sh to a no-growth component, leaving DKK 82.9/sh as the growth premium (about 32.1% of price). This supports maintaining core exposure, as the market is no longer pricing a peak growth regime. However, over the next four months the key driver is how investors re-price the near-term earnings path amid US net-price pressure, payer tightening and Eli Lilly read-across, which can swing the multiple even if demand remains strong. Novo's manufacturing scale and historically high profitability underpin the moat, but until pricing and margins show clearer stabilisation, the prudent action is to keep a core position while trimming excess sizing.

Considerations:

A clearer path on board execution and oral drug sales/uptake would help reset expectations around access, reimbursement and pricing. Key risks are sustained net-price pressure, payer tightening and Eli Lilly read-across, which could keep the stock headline-driven despite reduced implied growth of ~3.37%. Evidence that pricing pressure is absorbed without material margin deterioration would support maintaining core exposure. Rebuilding the trimmed 1% should only be reassessed after reduced headline sensitivity or a clear de-risking datapoint on pricing and margins.



UnitedHealth Group

Ticker	Currency	Sector	PnL ¹	Δ Weight
UNH	USD	Healthcare	-44.76%	=2.0%

UnitedHealth Group is the largest health insurer in the United States, and is a multinational conglomerate also incorporating health-care-services under the Optum brand. It is the world's largest healthcare company by revenue.

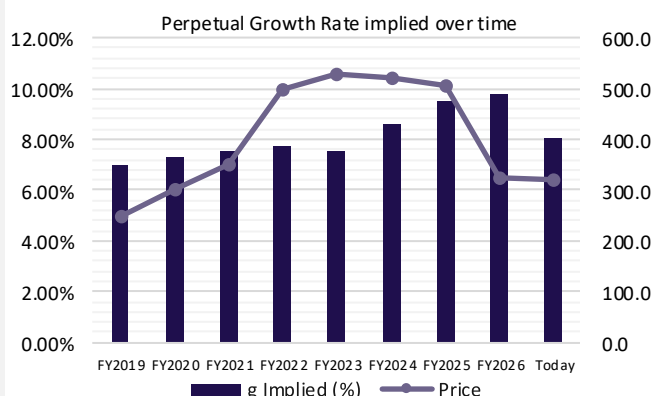
We hold our exposure to UNH with a price target of 360. Q1 2026 offered a first supportive read on costs, but the information set is still insufficient to justify adding risk. In Q1 2026, revenue was \$111.7b and adjusted EPS was \$7.23, with medical care ratio (MCR) at 83.9%. The price target reflects modest upside from a second confirming print on cost stability, not a full re-rating.

Core analysis:

The near-term driver is medical cost trend (utilisation) and whether pricing discipline can offset it; this is why the market is focused on margin repair. Q1 2026 was directionally supportive (revenue \$111.7b, adjusted EPS \$7.23, MCR 83.9%), but the setup remains multiple-sensitive because expectations are still elevated. A key debate is the apparent ROE step-down from a long period around the mid-20s toward mid-teens levels, consistent with margin pressure from higher utilisation and a slower Optum contribution while equity continues to build. Implied perpetual growth is ~8.0%, and the decomposition (book ~\$103.9/sh, no-growth ~\$37.1/sh, growth premium ~\$182.5/sh) indicates a meaningful growth premium remains embedded. Relative to peers (Elevance, Humana, Centene, Molina), UNH's premium is typically supported by scale and Optum's services mix; however, the dominant near-term risk is sector-wide pricing versus utilisation mismatch. HOLD is appropriate: upside requires evidence that cost stability and Optum execution are durable, while renewed utilisation surprises would likely compress the multiple.

Considerations:

Near-term catalysts include a second results cycle confirming durable cost stability, with MCR remaining near 83.9% and pricing actions offsetting utilisation. Clearer Optum execution would support confidence that the ROE step-down is stabilising. Key risks are renewed Medicare Advantage utilisation pressure, adverse reserve development, or pricing lagging cost trend. Maintaining the current 2.00% exposure remains appropriate until cost stability and Optum momentum are confirmed.



1. PnL of an asset is calculated as capital gains (without dividends reinvested) from Entry (see Full Asset Disclosure) to Date = 05/05/2026.



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Nanya Technology Corporation			
Ticker	Currency	Sector	Δ Weight
2408	TWD	Information Technology	+1.0%

Nanya Technology researches, develops, and sells semiconductor products. They have carved out a prominent position as a leading player in DRAM (Dynamic Random-Access Memory).

The company is in a rare position: it has a solid expertise in DRAM technology combined with strategic partnerships and a vast portfolio of intellectual property, that will enable it to fill the upcoming higher demand due to an increasing AI driven need for performing memory chips.

Core Analysis:

The company has recorded a record Q1 in 2026 with a 67.9% gross margin, a 53.1% net margin and a massive 63.1% increase in quarterly sales, and Management guided that Q2 2026 will be even better, backed by long-term supply contracts with key customers signed in the beginning of the current year. This massive growth is reflected in forward multiples way below the industry average, highlighting a possible undervaluation compared to its peers. In particular, the 2026 expected EV/EBITDA is 4.1 against a current industry average of 20.1. Furthermore, the company is expected to price by EoY just 5.8 times its earnings, marking a floor level for the industry range. The market is now in a situation of substantial undersupply of DRAM, especially after the shifting of many factories by Samsung, SK Hynix and Micron away from conventional memory chips toward a specialised product used in AI servers. Due to this shortage Nanya has been able to raise its prices per chip by more than 70% in a single quarter (Q1 2026 earnings call, April 2026). Beyond its core business, Nanya has started generating initial revenues from a customised memory product designed specifically for AI hardware. Its next-generation manufacturing technology is on schedule for rollout in the new factory from 2027 onward, according to the 2026 earnings call.

Considerations:

In conclusion we believe that the strongly improving operating performance, together with declining multiples and the unique positioning in a high-demand and reduced supply niche, would allow the company to outperform the market in the following periods. The only threat for the company may become real if the geopolitical tensions limiting the Chinese chipmaker CXMT from accessing non-Chinese customers, would ease. In this case Nanya would be facing increased competition from a global and efficient chip producer, potentially eroding part of its market share.

Amazon			
Ticker	Currency	Sector	Δ Weight
AMZN	USD	Consumer Discretionary	+1.0%

Amazon is an American multinational technology company engaged in e-commerce, cloud computing, online advertising, digital streaming, and artificial intelligence. The real reason Amazon is a great investment is beyond the surface level story of e-commerce: the real business is a combination of high-margin software and services sitting on top of the retail infrastructure, together with cloud computing (AWS), digital advertising, and now a fast-growing hardware and AI division.

Core analysis:

Looking at the numbers there is empirical support to the growth of their business model: AWS grew 28% year-on-year to \$37.6 billion of revenues. That is its fastest growth rate in nearly four years (beating analyst expectations of 26%). Furthermore, Amazon is very efficient in turning this increasing revenue into profits, in fact AWS, which represents roughly 21% of total revenue, produces roughly 59% of total operating profit of the company. This acceleration is being driven by enterprises migrating their computing infrastructure to the cloud to run AI applications, a transition still in its early stages. Additionally, Amazon designs and manufactures its own computer chips to power AWS data centres. This business segment (inclusive of Graviton, Trainium, and Nitro) exceeded \$20 billion annual revenue in Q1 2026, is expected to grow even faster in the upcoming years with commitment from both OpenAI and Anthropic to consume together approximately 7 gigawatts of Trainium capacity, starting from 2027. Besides AI and cloud driven revenue, Amazon's business model is diversified, providing the company a solid defence in case of isolated industry shocks. The company Anthropic can, for example, rely on a huge (and growing) advertising business segment, with almost 50% in operating margins and almost no CapEx requirement to grow. Moreover, the company remains solid financially, with a 22.3% ROE and a 12.8% ROIC, showing an efficient use of capital to generate profits. The D/E ratio of 0.16 and an Interest coverage ratio of 41.03 also suggest that the company is in safe financial position.

Considerations:

AWS's launch of "Amazon Quick" will enhance the automation of real-world tasks, such as scheduling, and managing specialized workflows, thus capturing higher-margin, recurring software revenue, increasing its TAM and strengthening customer lock-in. Moreover, the company recently signed a deal with Anthropic where it will invest up to \$25 million as part of an AI infrastructure deal, while Anthropic committed to spending more than \$100 billion on AWS over the next 10 years, providing a predictable, stable long-term revenue stream. One major risk is that Amazon is currently spending hundreds of billions on data centers, "Trainium" chips, and AI infrastructure, assuming these investments will automatically translate into higher margins for AWS and AI-related revenues. However, overinvesting alongside free cash flow deterioration are evident risks, as CapEx must be done upfront, but returns are uncertain and may be delayed, leaving investors impatient. Finally, "Amazon Leo" represents a highly capital-intensive bet with high maintenance costs and some regulatory scrutiny, requiring monitoring by our next portfolio rebalancing.

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Equity Investments – Due Diligence Summaries

TotalEnergies			
Ticker	Currency	Sector	Δ Weight
TTE	EUR	Energy	+2.5%

TotalEnergies is a global integrated energy company with presence in 120 countries across 5 continents. It produces and markets oil and biofuels, natural gas, biogas and low-carbon hydrogen, renewables and electricity. The company is vertically integrated from production through transformation into intermediate and finished products, making it more diversified than a pure upstream producer. The investment case is driven by resilient financials, strong diversification across energy segments, and an earnings profile currently supported by higher commodity prices despite regional disruption.

Core Analysis:

The current macro environment remains supportive for the company, as even though the Middle East conflict has resulted in production disruptions in Qatar, Iraq and UAE, representing approximately 15% of the total oil and gas production, a higher oil price more than offsets the loss of impacted assets in the Middle East. In particular, an \$8/b increase in the Brent price is sufficient to offset the expected 2026 operating cash flow from impacted assets in Iraq, UAE offshore and Qatar, at \$60/b. Moreover, their sensitivity analysis estimates that a 10\$/b rise in average liquids price would lead to a \$2.3 billion increase in adjusted net operating income. Since oil prices recently climbed above \$100/b, well over the base scenario, we believe that TotalEnergies remains well positioned in the current macro backdrop and prolonged supply disruption. Revenues and income in 2024 and 2025 have declined from the 2022–2023 peak as energy prices and margins normalized from exceptional post Ukraine war levels (sales declined by 6.2%, net income by 16.7% in 2025). Nevertheless, free cash flow increased 16% YoY, supported by strong operating performance, while profitability margins remain higher than industry averages: gross margin of 35.98%, operating margin of 10.8% and net profit margin of 7.2%, the latter almost twice the average of TotalEnergies' peers. Moreover, the return on average capital employed (ROACE) was 12.6%, the best among the integrated oil majors for a fourth consecutive year, while EV/EBITDA remains at only 5.5x (compared to the US oil majors Chevron and Exxon Mobil with 9.7x and 11.5x respectively), indicating an undervaluation as margins remain strong. Moreover, the most recent 1Q2026 earnings report shows a 20% increase in adjusted EBITDA YoY, 40% rise in net income and ROE of 14.4%, suggesting improved operational efficiency and overall profitability.

Considerations:

Catalysts include a potential buyback increase given Brent is now ≈\$100 versus \$69/b at which Q1 buyback was initially cut. Additionally, the closed Strait of Hormuz keeps oil and LNG prices high, continuing to bolster earnings, and a regulatory approval of TotalEnergies' agreed €5.1b acquisition of a 50% stake in EPH's 14GW+ European power portfolio could further drive a price re-rating upwards. With regard to falsifiers, a price collapse below \$60/b for Brent, and further damage to assets in the Middle East would hurt earnings and investor sentiment. Currency risk is also present, as a strengthening euro hurts dividend payouts, though its effect on FCF and operating income appear minimal.

Gerdau S.A.				
Ticker	Currency	Sector	PnL ¹	Δ Weight
GGB	BRL	Materials	+39.02%	-1.5%

Gerdau is the largest Brazilian multinational steel producer with an industrial presence in 7 countries. From a medium-term perspective, trimming our Gerdau position is justified as the investment case is becoming increasingly dependent on the resilience of its North American business and the continuation of favorable U.S. tariff conditions, while Brazil and South America remain weaker and more volatile contributors. Gerdau's 4Q25 results showed that North America generated 72.8% of consolidated 4Q25 adjusted EBITDA, while Brazil and South America were pressured by import competition, seasonality, maintenance shutdowns, and weaker pricing.

Core Analysis:

In 2025, the US segment benefitted from resilient demand, especially from non-residential construction and data centers, as well as policy support from tariff adjustments. That translated into stronger shipments and pricing, and North America contributed 72.8% of consolidated 4Q25 adjusted EBITDA, which signifies that earnings are becoming more geographically concentrated. The consolidated financial performance reinforces the case for decreasing our exposure. For the year 2025, Gerdau reported a ~5% increase in steel shipments and 4.2% increase in net sales. However, gross profit fell 13.4%, EBITDA declined by 30.1% (EBIT by 50.1%), while net income dropped by 69.2%, although heavily impacted by impairment charges (adjusted net income declined by 21.1%). Therefore, revenue and volume growth did not translate into profitability. Even though the stock price declined by over 30% as investors reacted to the weaker earnings report and mounting domestic challenges, the price rebounded almost to the level of the previous peak on US tariff tailwind and Brazilian policy support. Looking more closely at each segment, EBITDA from the Brazilian segment fell by 31.2%, South America by 23%, and only the North American segment experienced an increase in EBITDA by 18%. Since the North American steel market is protected by a 50% tariff, the actual current earnings are disproportionately reliant on North America and on uncontrollable policy conditions. Additionally, margins have not only compressed in the past year but are substantially lower than industry averages (gross margin of only 11%, compared to 45% for peers, and net profit margin of barely 2%, while the industry average remains over 12%). The recent 1Q2026 earnings report shows that consolidated EBITDA, margins, and net income improved, but the underlying earnings mix became dependent on North America, while Brazil remained weak with record import penetration and falling shipments.

Considerations:

The primary upside would be an improvement in the Brazilian segment, if expected trade defense measures to reduce import pressure are successfully implemented. Conversely, our thesis would strengthen if U.S. steel market conditions soften (a shorter order backlog), tariff support becomes less favorable than expected (for now the 4/2/26 White House Section 232 action keeps the 50% tariff on steel commodity imports in place), or if the protection proves insufficient to sustain pricing and offset cyclical weakness in case of lower-than-expected demand from the non-residential and infrastructure markets.

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Equity Investments – Due Diligence Summaries

Caterpillar Inc.

Ticker	Currency	Sector	PnL ¹	Δ Weight
CAT	USD	Industrials	+72.36%	-2.0%

Caterpillar Inc. is a global leader in construction and mining equipment, operating across four main segments: Transportation, Energy, Construction, and Resource Industries.

Exiting our Caterpillar position is justified as the investment case increasingly reflects a mismatch between strong demand-driven growth and weakening profitability, combined with a stock price that has significantly outperformed fundamentals. While Caterpillar continues to benefit from favourable structural trends such as infrastructure investment, energy demand, and AI-related growth, declining margins, deteriorating returns, and rising cost pressures signal a late-cycle normalization. Given the substantial re-rating in the share price, the current risk-reward profile appears unattractive, and capital can be more efficiently redeployed into opportunities with greater upside potential.

Core Analysis:

In 2025, the company experienced strong demand, with revenues increasing by 4.2% to approximately \$67.6 billion, supported by global infrastructure investment, energy transition dynamics, and a record backlog of \$51 billion, providing visibility on future sales.

However, this strength did not translate into improved profitability: EBITDA declined by 16.7%, EBIT by 20.2%, and net income by 16.0%, highlighting a clear deterioration in earnings quality. Margins compressed significantly across all levels: EBITDA margin decreased from 24.05% to 19.20%, EBIT margin from 20.72% to 15.85%, and net margin from 16.53% to 13.32%. This margin compression reflects increasing cost pressures, including higher input costs, tariff-related expenses, and a normalization of the industrial cycle following peak conditions. Cash generation weakened, with free cash flow declining by 15.5%, while efficiency and returns highly deteriorated: ROE declined from ~55% to ~44%, ROIC from ~26% to ~14.5%, and ROCE from ~24% to ~17%. The reduced ability to generate returns on capital is a key concern for a capital-intensive and cyclical industry such as Caterpillar.

Despite weakening fundamentals, Caterpillar's stock price appreciated sharply, rising from approximately \$450 in October 2025 to above \$800 in early 2026, representing a significant capital gain. This re-rating appears largely driven by forward-looking expectations, including backlog visibility, exposure to AI-related infrastructure, and strategic initiatives such as the Monarch Tractor acquisition, rather than improvements in current financial performance. As a result, the valuation increasingly reflects optimistic assumptions about future growth, while current profitability, margins, and returns are deteriorating. This disconnect suggests limited upside potential.

Considerations:

Persistent decoupling of revenues from profitability, margin compression, weak free cash flow, and declining returns on capital ensure that there is no better time than the present to exit this position. Nevertheless, persistent AI-related energy demand and data-centre expansion finally translating to margin recovery and cash generation would falsify our sell rating.

Airbus

Ticker	Currency	Sector	PnL ¹	Δ Weight
AIR	EUR	Industrials	-14.67%	-1.5%

Airbus is the largest aeronautics and space company in Europe, providing products, services, and solutions across the aerospace sector.

Q1 2026 was a sharp miss: revenues -7% to €12.7b, EBIT Adjusted -52% to €300m, FCF -€2.5b, on 114 deliveries versus 136 a year prior. P&W caps the ramp through 2027, tariffs are unhedged, and Hormuz tensions threaten the demand outlook the backlog relies on.

Core Analysis:

In Q1 2026, Airbus delivered results well below Q1 2025 across every major metric. Revenues fell 7% to €12.7b (Q1 2025: €13.5b), EBIT Adjusted collapsed 52% to €300m (Q1 2025: €624m), and FCF deteriorated sharply to -€2.5b (Q1 2025: -€310m). Commercial Aircraft EBIT Adjusted was nearly wiped out at €81m (Q1 2025: €494m), driven by lower deliveries and an unfavourable USD hedge rate, with just 114 aircraft handed over versus 136 a year earlier. The sole positive was Defence and Space, with EBIT Adjusted +69% to €130m and order intake +91% to €5b. These numbers are encouraging, but insufficient to offset the scale of the commercial miss. EPS fell to €0.74 (Q1 2025: €1.01), with net income down 26% to €586m. FY2026 guidance was reaffirmed: approximately 870 deliveries, EBIT Adjusted €7.5b, and FCF around €4.5b, though this is explicitly contingent on no further supply disruptions and currently applicable tariffs only, leaving meaningful downside risk unacknowledged.

Considerations:

Pratt & Whitney remains the binding constraint on Airbus's entire earnings recovery, explicitly capping the A320 ramp through 2026 and 2027. At 114 deliveries in Q1, the lowest since the pandemic, Commercial Aircraft EBIT Adjusted was nearly wiped out at €81m, and hitting 870 units full-year requires almost 250 per quarter in H2, something unprecedented and increasingly implausible. Spirit AeroSystems integration added €32m in Q1 adjustments with management flagging more to come, while USD depreciation already cut commercial revenues 11% despite broadly stable volumes. On tariffs, 2026 guidance explicitly excludes any new US measures, leaving the single largest macro risk entirely unhedged for a company with deep transatlantic supply chain exposure. Most critically, escalating tensions around the Strait of Hormuz (through which roughly 30% of global seaborne oil transits) pose a direct and underappreciated demand-side threat: an oil price spike would compress airline margins industry-wide, force capacity cuts, accelerate order deferrals, and put Airbus's 9,037-unit backlog under pressure in a way the market is not yet pricing. The order book is only as valuable as the airlines behind it remain solvent and willing to take delivery. Taken together: a supply ramp that depends on P&W, a balance sheet exposed to tariff escalation, and a demand outlook clouded by Hormuz; the current valuation of 23x forward P/E leaves no margin of safety whatsoever. Hence, we sell our shares in Airbus for the foreseeable future.

1. PnL of an asset is calculated as capital gains (without dividends reinvested) from Entry (see Full Asset Disclosure) to Date = 05/05/2026.

Commodity Investments – Due Diligence Summaries

Uranium				
Ticker	Currency	Sector	PnL ¹	Δ Weight
UXXc1	USD	Commodity	-7.49%	=4.0%

Rebalancing Thesis:

From both a medium and long-term perspective, maintaining a 4% exposure to uranium remains justified given the strong structural outlook for the commodity. The investment case is supported by a combination of persistent supply constraints, accelerating global demand for nuclear energy, and the strategic importance of nuclear power in decarbonization and energy security. The structural imbalance between supply and demand is unlikely to resolve quickly due to long mine development timelines and years of underinvestment, reinforcing the case for sustained exposure.

Core Analysis:

The global uranium market is undergoing a structural shift driven by demand expansion and constrained supply, creating a supportive long-term price environment. On the demand side, nuclear energy is increasingly recognized as a reliable, low-carbon baseload power source, particularly in the context of global decarbonization goals and rising electricity demand. Governments across major economies are extending reactor lifetimes, restarting previously idled capacity, and committing to new builds. Additionally, emerging demand from AI-driven data centres and electrification trends is reinforcing the need for stable, large-scale power generation, further supporting nuclear energy adoption. On the supply side, the uranium industry remains structurally constrained. New mines often require more than a decade to develop, limiting the ability of supply to respond quickly to the rising demand. This is compounded by a prolonged period of underinvestment following past accidents during nuclear fuel development, as well as ongoing production discipline from key producers. Moreover, uranium exposure offers diversification benefits, serves as a strategic allocation to a sector with limited substitutes and is closely tied to long-term policy and infrastructure decisions, even though short-term macroeconomic cycles still pose risks, and high price volatility remains possible.

Considerations:

The primary upside catalyst for maintaining uranium exposure is a sustained increase in uranium prices driven by tightening supply-demand dynamics. Continued growth in nuclear power capacity, supported by government policies and energy security concerns, would further strengthen demand. Technological and strategic developments, such as large-scale nuclear infrastructure programs (including Western government-backed initiatives) and further integration of nuclear into clean energy taxonomies, would also reinforce the current thesis. It would be challenged by a reversal in nuclear policy, faster-than-expected supply growth, or a structural shift toward alternative energy sources that reduces reliance on nuclear power. Despite these risks, the current balance supports maintaining exposure, as the structural drivers underpinning the uranium market remain intact.

Gold				
Ticker	Currency	Sector	PnL ¹	Δ Weight
XAU	USD	Commodity	+88.74%	-1.5%

Rebalancing Thesis:

We view the current relevant gold transmission mechanism to run from oil to inflation to rates to gold. Tensions in the Strait of Hormuz drove Brent +16% at the end of April, feeding into headline inflation with a lag as reflected by the PCE consensus rising to 3.5% on 30 April from 2.8% prior. Sticky energy-driven inflation removes the Fed's room to cut, real yields hold positive, and the opportunity cost of holding non-yielding assets rises, which is mechanically bearish for gold.

Our 6M view sees the continuation of the war in the Middle East, sustained high oil prices, entrenching global stagflation, and major central banks remaining hawkish. Nevertheless, we believe the market is underpricing the immediate pressure on gold. Gold spot price has modestly underperformed at \$4,687 against the Reuters median at \$4,746, a move that remains insufficient relative to the tightening in real yields.

We believe the market is overpricing Gold's impaired narrative as a 'safe-haven' asset and underpricing the persistence of the current rate regime. While consensus expects a clean reversal as oil fades, we view the lag through inflation expectations and CB repricing extending beyond our 6 months trade horizon.

Core Analysis:

Gold's price function is dominated by real yields. Gold has no cash flows, so when real yields rise, the relative case for bonds strengthens, and gold gets sold. When real yields fall, gold re-rates higher. Sensitivity is roughly \$40 to \$60 per ounce per 25bp shift in 10-year TIPS by estimates from Goldman Sachs.

Over our 6M horizon, the chain runs persistently against gold. Higher oil keeps inflation expectations sticky, CBs stay on hold, real yields stay elevated, and gold drifts lower. The chain only reverses once oil fades, but we do not expect a clean reversal in this window.

The dollar reinforces the rates channel. Continued USD firming pushes gold demand lower in foreign currency terms. We expect the dollar to remain a tailwind for the bearish gold view on the horizon.

Considerations:

Recent policy communication on the (29th, 30th of April) support the persistence view: the Fed displayed a hawkish tone (sticky inflation acknowledged and cuts "off the table") and US PCE surprised to the upside (+0.7% MoM). Both prints confirm the squeeze and the bearish path for gold as they demonstrate high inflation expectations and little room for Fed rate cuts.

We define a reversal in gold's safe-haven function as a >2% rise in gold during any 2-week period where the S&P falls >5%. Such a move would falsify our trim, which is predicated on gold's impaired hedge characteristics rather than the macro backdrop. Absent this, continued underperformance during equity stress would justify making the trim permanent.

1. PnL of an asset is calculated as capital gains (without dividends reinvested) from Entry (see Full Asset Disclosure) to Date = 05/05/2026.



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Fixed Income Sleeve – Market Outlook

Past months have provided an enormous amount of information to work on for fixed income. Our main idea is that most of it reconnects to the supply shock generated by the Iran war and the closely linked inflation. Indeed, in the current macro landscape, we believe that inflation is what will really move fixed income in the following months.

Starting from this foundation, we highlight the issues that run along a supply shock. The main risk is the development of a stagflationary environment: supply is constrained, but demand does not fall in the same proportion at the same time. The result is higher prices even while real growth deteriorates. In this situation, the long end of the fixed-income curve does not benefit as it would in a normal economic slowdown, where lower central-bank rates could help support the economy, because central banks now have to carefully balance recession risk and inflation risk. Furthermore, we believe that the market is not currently pricing inflation risk correctly, as expectations for future interest-rate hikes have faded away too quickly. These are the main reasons that pushed us to get rid of longer maturities.

The next main point, closely linked to the previous idea, is liquidity. As we believe that inflation will remain sticky, the future velocity and amount of money creation are likely to shrink. This will first affect companies and countries with high refinancing needs, where the maturity wall and the amount of debt are the main discriminants. For this reason, we decided to avoid countries with high debt-to-GDP ratios and risky maturity walls, especially in Europe, such as France, Italy and Spain.

Connected to the shrinkage of liquidity in the system is the impact on high-yield investments. As the amount of lending is likely to decline, high yield would pay the highest price. We believe that the market is mispricing high-yield spreads and that the current buffer does not provide sufficient coverage against bad scenarios. For this reason, we decided to avoid high yield.

Finally, as everything began from the energy shock, we decided to avoid the countries that are most exposed to this issue. Asian countries, and China in particular, are among the most exposed, but Europe also has a high stake at risk. As we do not want to face the risk of a possible stagflation scenario, we decided to avoid these countries. The U.S. comes with a different explanation, but with a similar conclusion: a lot of liquidity from foreign countries flows into the U.S., and as we expect liquidity to shrink, or at least to compress, the U.S. market is indirectly exposed to this effect even though it is more energy independent.

This brings us to the positive side of the allocation. The preferred sovereign markets are those with manageable public debt relative to financing capacity, limited near-term refinancing pressure, a strong domestic investor base, a high share of local-currency funding, lower dependence on unstable foreign inflows, and lower vulnerability to imported energy inflation. A credible monetary and FX framework is equally important, because it helps protect both bond valuations and the currency if global conditions deteriorate. The countries selected are the ones that best fit this filter.

One of the strongest elements of this idea is its asymmetry. If the supply-shock thesis proves correct, markets with stronger domestic funding, lower external dependence, and lighter refinancing pressure should outperform because they are more insulated from both the inflation shock and the liquidity shock. If the thesis weakens, the same structural characteristics should still help preserve relative stability. And, since we believe in Murphy's law, we position accordingly...

Eurozone Duration Exposure Removals

Bonds Removed:	Modified Duration	Δ Weight
BTP 2.9% St38	9.84	-4.0%
Spain Bonos 3.45% Oc34	7.15	-4.0%
OAT 1.25% Mg36	8.96	-3.0%

Starting from debt-to-GDP, France, Italy and Spain display levels well above the euro-area norm, at 115.6%, 137.1% and 100.7%, respectively. Italy is clearly the weakest on this measure. Moving to the maturity wall and refinancing profile, these countries look less exposed at first sight, with average debt maturity around 8.5 years for France, 7.9 years for Italy and 7.89 years for Spain. However, these figures should not be read in isolation, because the stock of debt compounds refinancing risk. France still faces a 2026 financing requirement of €305.7b; Italy had about €597.8b of debt maturing within one year at the start of 2026; and Spain still refinances roughly 13% of its debt stock each year. Italy again stands out as the weakest name in absolute refinancing size.

Looking at growth and deficit prospects, France appears the weakest, with 2026 growth forecasted at 0.9% and the deficit at 4.9% of GDP. Italy follows, with 0.8% growth and a 2.8% deficit. Spain displays much stronger data, with 2026 growth forecast at 2.3% and the deficit at 2.1% of GDP. On reliance on foreign capital, France again looks the most exposed, with around 56% of negotiable state debt held by non-residents at end-2025. Spain follows with 47.8%, while Italy closes the ranking at roughly 34.4%.

The last point we want to highlight is the spread versus the 10-year Bund. Compared with one year ago, spreads have narrowed for all three countries by 6bps, 27bps, and 20bps for France, Italy and Spain respectively. To us, the market is underpricing the risk of this sovereign paper in the context of the Iran shock. The message is even stronger when set against euro high yield: the ICE BofA Euro High Yield OAS is now around 280–282bps, compared with about 352bps one year ago, a premium compression of 70bps.

As demonstrated, France and Italy are the highest priority removals from the portfolio's fixed income sleeve. While Spain displays a healthier macro and fiscal profile, we position to avoid exposure to long-duration sovereign paper, particularly in the Eurozone, given our position on the current macroeconomic regime.

Kingdom of Denmark 2.00% Nov-2028

ISIN	Currency	YTM	Modified Duration	Δ Weight
DK0009925265	DKK	2.44%	2.37	+5.0%

Rebalancing Thesis:

We purchase this bond with a 12-18 month time horizon. Denmark serves as the premier defensive shelter against Eurozone peripheral volatility. The market currently underprices the idiosyncratic disinflationary impact of the 2026 electricity tax cut, which is forecast to bring headline inflation to 1.0%. This creates a rare window where a AAA sovereign provides positive real yields and superior liquidity depth without the refinancing risks prevalent in Southern Europe.

Core Analysis:

Credit Fundamentals: Denmark maintains a fiscal fortress with a projected gross debt-to-GDP of 27.7% for 2026. At the central government level, debt was only 7.6% of GDP at end-2025. The government holds a substantial liquidity buffer of DKK 161.5 billion at the central bank, mitigating any forced market access during volatility.

Spread & Relative Value: The DGB 2028 trades at a yield of 2.44%, representing a spread of approximately -22.6 bps relative to the German curve. For EUR-based allocators, the FX-hedged excess yield remains positive, offering a pickup of roughly 12.7 to 14.3 bps over German benchmarks. This compares favourably to Spanish 10Y spreads (+49 bps) and Italian 10Y spreads (+82 bps), which carry significantly higher "maturity wall" risks.

Rates Sensitivity: With a modified duration of 2.37, the DV01 on a DKK 100 million position is DKK 23,439. In a stagflationary escalation scenario (50 bps rise in policy expectations), the price decline is limited to roughly 1.18%, outperforming the Bloomberg 3-5 Year Euro Government Bond Index (duration 3.69).

Considerations:

Denmark exhibits structural resilience through renewed North Sea gas extraction, which provides a critical terms-of-trade buffer against supply-side energy shocks compared to importing European peers. The primary near-term catalyst is the temporary reduction of the electricity levy to the EU minimum in April 2026, which is forecast to lower headline inflation by 0.8 percentage points and broaden real yields for front-end investors. However, the thesis would be invalidated by a breach of the EUR/DKK peg beyond the 7.6294 upper band, as such volatility would signal potential independent interest rate hikes by Danmarks Nationalbank to protect the currency mandate.

Kingdom of Sweden 0.75% May-2028

ISIN	Currency	YTM	Modified Duration	Δ Weight
SE0009496367	SEK	2.28%	2.43	+4.0%

Rebalancing Thesis:

Sweden offers a "disinflationary arbitrage" as headline HICP is projected to fall to 0.6% in 2026 due to temporary food VAT reductions. The Riksbank's current "hawkish pause" at 1.75% is expected to pivot as domestic data decouples from global energy trends, allowing investors to lock in high real yields and benefit from domestic pension-led demand.

Core Analysis:

Credit Fundamentals: Sweden adheres to a strict "debt anchor" targeting 35% of GDP. Public debt is forecast at 35.3% in 2026, well below the structural ceiling. The National Debt Office is actively phasing out foreign currency debt (target zero by Jan 2027), ensuring the sovereign is liquidity-independent from external FX fluctuations.

Spread & Relative Value: The SGB 2028 yields 2.28%, trading at a spread of approximately -36 bps relative to the German 2-year Schatz benchmark. Despite this nominal discount, the bond represents a superior risk-adjusted alternative to the Eurozone periphery; while France 10Y spreads (+68 bps) and Italian 10Y spreads (+82 bps) are widening due to refinancing stress, Sweden's curve is supported by a deep domestic institutional base. Technical support is exceptionally robust, with domestic residents holding 62% of issuance and pension funds accounting for 23%, creating a structural valuation floor during global risk-off events.

Rates Sensitivity: Modified duration is 2.43, with a DV01 of SEK 23,534 per SEK 100 million position. In a scenario where domestic disinflation outweighs the energy shock, a 25-bps compression toward a neutral Riksbank stance would generate immediate capital gains of ~0.6%.

Considerations:

Macroeconomic stability is underpinned by a 2.6% GDP growth forecast for 2026, indicating a higher shock-absorption capacity than debt-burdened Eurozone counterparts. The upcoming May 7, 2026, Riksbank meeting acts as a key catalyst, where a shift from a hawkish pause to a "wait and evaluate" stance following the March downside inflation surprise could trigger a significant front-end rally. Conversely, the measurable falsifier is a sustained rise in 5-year breakeven inflation rates above 2.0%, suggesting a wage-price spiral that would force the central bank back into a tightening cycle despite the temporary VAT relief.

Perù 2.84% Jun-2030

ISIN	Currency	YTM	Modified Duration	Δ Weight
US715638DA73	USD	4.568%	3.79	+5.0%

Rebalancing Thesis:

Perù, with its S&P BBB- rating, offers a great opportunity to get exposure to LATAM and drive away funds from the usual EU/US allocation. The short maturity fits our idea, while still giving us exposure to possible increase in price due to inflow/reduction in the yield.

Core Analysis:

The Perù 2.844% 20-Jun-2030 USD-denominated bond fits almost perfectly with our FI view for the following months and, with a YTM higher than 4.5%, represents an attractive opportunity in line with our macro landscape positioning.

Perù displays several strengths. Debt-to-GDP is close to 32%, considerably lower than LATAM peers, which run around 60%, and it is forecasted to stay below 34% by the end of 2026. The deficit is under control and expected to stay below 3%. All this is combined with an almost inexistent maturity-wall risk, as average debt maturity is around 12 years. Furthermore, growth is expected to remain above 3% in 2026, helping to create the right investment floor.

However, some issues remain and should be valued carefully. First of all, Perù is a net oil importer and is exposed to the Iran war energy shock. Indeed, March inflation spiked to 3.7%, even though this is considered a transitory shock. Furthermore, Perù relies heavily on foreign bondholders, as more than 45% of its debt is held by non-residents. A last drawback to consider is the lower liquidity of Perù debt, which should grant a liquidity premium.

Considerations:

Overall, Perù displays a higher-than-average yield compared to the usual US/EU FI allocation and offers attractive features that can provide an edge in the next months' macro scenario. The drawbacks are present and should be monitored carefully, yet we believe that the upside possibility and the current debt position of Perù outweigh the left-tail risks.

EUR/USD 3M FX Swap

Description:

A rolled FX swap is an OTC currency hedge structured as a sequence of short-dated FX swaps. Each leg comprises a simultaneous spot purchase and forward sale of USD against EUR, sized to the current EUR-equivalent value of the fund's USD-listed assets. We implement this as two consecutive 3M FX swaps over the 6M horizon, with the hedged notional reset at the 3M roll to track the natural drift of the equity sleeve. The structure neutralises FX P&L on USD assets (equities and bonds; not commodities) without subtracting from the main allocation; only daily mark-to-market is recognised against simulated cash collateral.

Core Analysis:

The 6M annualised USD/EUR rate spread sits at ~130 bps, anchoring the hedge cost at approximately 0.65%. Our thesis is that USD/EUR will depreciate by 1 to 2% over the same horizon, roughly 2 to 3× the hedge cost in expected value. Three forces support the call: the ECB's incrementally hawkish stance versus the Fed's dovish lean is narrowing the spread that anchors CIP; the post-Hormuz dollar bid is fading, having retraced approximately 40% of the war-driven appreciation since the 7 April ceasefire; and positioning has been cleansed by the late-February short squeeze, allowing the underlying EUR-positive view to reassert on cleaner ground. The rolled structure, against a single 6M forward, accommodates the stochastic notional of the USD equity sleeve, where a 15% move in any holding would otherwise leave the position materially under- or over-hedged before maturity. The pricing builds on the quanto framework from Advanced Derivative Securities, isolating the cross-currency basis as the empirical residual that widens or compresses CIP under funding stress.

Considerations:

The primary upside catalyst is a sustained narrowing of the USD/EUR rate spread combined with continued post-war USD weakness; in this scenario the hedge captures the FX move while costing less than initially budgeted, and the cleaner positioning means weakness should be more orderly than the pre-war setup implied. The dominant downside is a renewed Hormuz escalation or a hawkish Fed surprise reversing the dollar fade; the hedge would then underperform unhedged exposure by the carry cost while delivering no FX benefit. A secondary risk is roll-cost drift: if the 3M spread widens at the September roll towards its post-Hormuz peak around 180 bps, the second leg's cost rises materially and the breakeven moves further out. The hedge is calibrated to break even at a 0.65% USD/EUR depreciation over six months; any move smaller than this represents an opportunity cost paid in exchange for downside protection.

Currency Hedging – Quantitative Framework

Introduction

The objective of this section is to specify the structure, pricing and cost of the rolled FX swap implemented to hedge the fund's USD exposure. Consistent with the fund's mandate, derivatives are used solely for risk management and do not draw capital from the main allocation; only daily mark-to-market against simulated cash collateral affects fund value. The analysis proceeds in two steps:

- **Instrument-level:** we define the rolled FX swap and the cash flows of each 3M leg.
- **Pricing-level:** we derive the no-arbitrage forward rate from Covered Interest Parity, situate it within the quanto framework, and identify the residual frictions (cross-currency basis and bid-ask) that constitute the realised hedge cost.

All amounts are expressed in EUR; the hedge cost is reported as a fraction of the hedged USD notional, both annualised and over the 6M horizon.

Rolled FX Swap Mechanics

A rolled FX swap is a sequence of short-dated FX swaps. At inception of each 3M leg, two trades are executed simultaneously:

- **Spot leg:** buy USD notional N^{USD} at spot $X(t_0)$.
- **Forward leg:** sell the same N^{USD} at the forward rate $F(t_0, t_0 + \tau)$, tenor $\tau = 3M$.

The net position is FX-neutral on the hedged notional: the spot leg matches the existing USD asset book, the forward leg locks the EUR conversion at maturity regardless of the realised $X(t_0 + \tau)$. At the 3M roll, N^{USD} is reset to the then-current EUR-equivalent value of the USD book, accommodating the drift of the equity sleeve. Two consecutive 3M legs span the 6M reporting horizon.

Pricing: Covered Interest Parity

By no-arbitrage replication, the forward rate is:

$$F(t) = X(t) \cdot e^{(r - r_f)(T-t)}$$

with r the EUR risk-free rate, r_f the USD risk-free rate, $X(t)$ in EUR per USD. The replicating portfolio borrows $F(t)e^{-r(T-t)}$ EUR, buys $e^{-r_f(T-t)}$ USD and invests at r_f , delivering exactly one USD at T . The forward rate is a martingale under the T -bond numeraire P :

$$F(t) = E_t^P[F(T)]$$

The general pricing identity for a currency-linked swap follows from the Return Swap derivation. For a swap exchanging foreign and domestic asset returns, the fair spread is:

$$a = e^{(r-q_d)T} - e^{(r_f-q_f-\rho\sigma_X\sigma_S)T}$$

The term $-\rho\sigma_X\sigma_S$ is the quanto correction, capturing the FX/asset comovement stripped out by a fixed-rate conversion. For our hedge the legs are pure currency cash flows ($q_d = q_f = 0$) and the asset-FX correlation ρ does not enter; the formula collapses to:

$$a^{FX} = e^{rT} - e^{r_fT} \approx (r - r_f)T$$

Real markets price a residual cross-currency basis b on top of CIP, reflecting USD funding scarcity, balance-sheet costs and regulatory frictions:

$$F^{market}(t) = X(t) \cdot e^{(r - r_f + b)(T-t)}$$

For 3M EUR/USD, b currently sits near -10 to -15 bps annualised. Total realised hedge cost combines CIP carry, basis and dealer bid-ask paid at each leg.

Investment Thesis

The 6M annualised USD/EUR rate spread is ~130 bps, anchoring the central hedge cost at 0.65%. We expect USD/EUR to depreciate by 1 to 2% over the horizon, roughly 2 to 3x the hedge cost in expected value. The case rests on three forces: ECB hawkishness compressing the spread, the post-Hormuz dollar bid fading since the April ceasefire, and cleansed positioning permitting an orderly resumption of the EUR-positive view. The rolled structure tightens hedge tracking to the current asset base.

Hedge Cost Decomposition

Component	Annualised (bps)	6M cost
CIP carry: $r_{EUR} - r_{USD}$	-130	-65
Cross-currency basis: b	-12	-6
Bid-ask (4 legs, ~1 bp each side)	-4	-2
Total	-146	-73

Hedge Scenario Analysis

The table below isolates the FX contribution to fund NAV under different EUR/USD scenarios over the 6M horizon, holding all other return drivers constant. The hedged perimeter covers the USD-listed equity and fixed-income sleeves (33.5% of NAV); gold and uranium are excluded as their USD-quoted prices already embed an implicit FX exposure consistent with their portfolio role.

EUR/USD	Unhedged $\Delta\%NAV$	Hedged $\Delta\%NAV$	Net hedge effect
-3%	-1.01%	-0.25%	+0.76%
-1.5%	-0.50%	-0.25%	+0.25%
-0.75%	-0.25%	-0.25%	0%
0%	0%	-0.25%	-0.25%
+1.5%	+0.50%	-0.25%	-0.75%
+3%	+1.01%	-0.25%	-1.26%

Simulation Disclaimer

The Multi Asset Global Opportunities Fund is virtual; the FX swap is simulated. We replicate the OTC implementation as faithfully as possible: daily mark-to-market against the LSEG-published forward curve; dealer bid-ask applied at trade date and at each 3M roll; simulated EUR cash collateral earning €STR under a notional CSA; cash settlement at each leg's maturity. No principal exchange occurs, consistent with a pure overlay on existing USD assets. Real-world implementation would require ISDA/CSA documentation, counterparty credit lines and operational infrastructure outside the scope of this academic simulation.



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Full Assets Disclosure of the Multi Asset Global Opportunities Fund

#	Name	ISIN	Weight	Type	Currency	Entry Dates	Entry Price EUR	Notes
1	Cash	-	0.00%	-	EUR	-	-	-
2	EUR/USD 3M FX Swap	-	0.00%	FX Hedge	EUR/USD	05/05/2026	0.856	Rolled (6M hedge)
3	Bund 0% Feb-2032	DE0001102580	6.00%	Bond	EUR	28/04/2025	86.08	
4	Venture Global LNG 7.75% 2035	USU91913AB62	6.00%	Bond	USD	28/04/2025	89.94	
5	Kingdom of Denmark 2.00% Nov-2028	DK0009925265	5.00%	Bond	DKK	05/05/2026	13.21	
6	Leonardo S.p.A.	IT0003856405	5.00%	Equity	EUR	10/03/2026, 24/10/2025, 28/04/2025, 14/11/2024	43.69	
7	Perù 2.84% Jun-2030	US715638DA73	5.00%	Bond	USD	05/05/2026	79.75	
8	Btp 0.45% Feb-2029	IT0005467482	4.00%	Bond	EUR	26/03/2025	91.72	
9	Kingdom of Sweden 0.75% May-2028	SE0009496367	4.00%	Bond	SEK	05/05/2026	8.887	
10	Romania 2.875% Mar-2029	XS1892141620	4.00%	Bond	EUR	24/11/2025	92.89	
11	Uranium	IE000NDWFGA5	4.00%	Commodity	USD	24/11/2025, 14/11/2024	31.05	Etc tracking continuous rolling Futures 1m (UXXc1)
12	Gold	IE00B579F325	3.50%	Commodity	USD	28/04/2025, 30/04/2024, 28/04/2023, 08/04/2020	2064.60	Spot price
13	Siemens Aktiengesellschaft	DE0007236101	3.00%	Equity	EUR	24/10/2025, 28/04/2025	217.90	
14	UK Gilt 4.25% Jun-2032	GB0004893086	3.00%	Bond	GBP	10/03/2026	115.36	
15	US Treasury 4.25% Aug-2035	US91282CNT44	3.00%	Bond	USD	10/03/2026	87.04	
16	ASML Holding N.V.	NL0010273215	2.75%	Equity	EUR	24/10/2025, 14/11/2024, 30/04/2024, 01/12/2022	707.3	
17	Coca-Cola HBC AG	CH0198251305	2.50%	Equity	GBP	24/11/2025	41.97	NOT "The Coca-Cola Company (KO)"
18	ENAV S.p.A.	IT0005176406	2.50%	Equity	EUR	14/11/2024	3.84	
19	Euronext N.V.	NL0006294274	2.50%	Equity	EUR	24/11/2025	129.07	
20	Novo Nordisk A/S	DK0060534915	2.50%	Equity	DKK	10/03/2026, 24/11/2025	37.02	
21	Nutrien Ltd	CA67077M1086	2.50%	Equity	CAD	14/11/2024	44.05	
22	Philip Morris International	US7181721090	2.50%	Equity	USD	28/04/2023	90.72	
23	TotalEnergies	FR0000120271	2.50%	Equity	EUR	05/05/2026	78.86	
24	Cameco Corporation	CA13321L1085	2.00%	Equity	USD	10/03/2026, 14/11/2024	57.94	
25	MercadoLibre Inc.	US58733R1023	2.00%	Equity	USD	14/11/2024	1781.77	
26	Miniso Group Holding Ltd	US66981J1025	2.00%	Equity	HKD	28/04/2025	3.79	
27	PT Adaro Andalan Indonesia Tbk	ID1000207509	2.00%	Equity	IDR	28/04/2025	0.368	
28	UnitedHealth Group	US91324P1021	2.00%	Equity	USD	14/11/2024	563.3	
29	Vitec Software Group AB	SE0007871363	2.00%	Equity	SEK	24/10/2025	32.66	
30	XIAOMI	KYG9830T1067	1.75%	Equity	HKD	24/11/2025	4.13	
31	Dollar General Corporation	US2566771059	1.50%	Equity	USD	14/11/2024	73.17	
32	Futu Holdings Limited	US36118L1061	1.50%	Equity	USD	24/11/2025	148.89	
33	Imperial Brands PLC	GB0004544929	1.50%	Equity	GBP	28/04/2023	22.45	
34	Adyen N.V.	NL0012969182	1.00%	Equity	EUR	28/04/2025	1440.80	
35	Amazon	US0231351067	1.00%	Equity	USD	05/05/2026	232.49	
36	Gerdau S.A.	BRGGBRACNPR8	1.00%	Equity	BRL	24/11/2025	2.99	
37	Nanya Technology	TW0002408002	1.00%	Equity	TWD	05/05/2026	5.86	
38	Nu Holdings Ltd	KYG6683N1034	1.00%	Equity	USD	28/04/2025	10.63	



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Introduction

The main objective of this section is to assess and quantify the risk embedded in the Minerva IMS Multi Asset Global Opportunities Fund built by the portfolio team. We use a daily perspective on the potential extreme behaviour of a basket of assets selected by the portfolio analysts. The analysis will include three VaR and ES models (two parametric and one non-parametric) and an overview of how sentiment analysis can be considered a factor for short term investments.

As the Quantitative Research division, our focus is the estimation of the two main risk indicators:

- The daily Value at Risk (VaR): the maximum portfolio loss that occurs with $\alpha\%$ of probability over a time horizon of 1 day. For instance, if the VaR ($\alpha=5\%$) = -3.00%, it means that tomorrow there is a 5% probability of encountering a loss in the interval [-100%, -3.00%] potentially;
- The daily Expected Shortfall (ES): the expected return on the portfolio in the worst $\alpha\%$ of cases. So, it is just a mean of the returns lower than the VaR.

A simple technique to estimate these two measure is based on a historical approach: given a time series of returns of a financial security, we can easily compute the desired quantile of the historical distribution to estimate the VaR, and, after that, estimate the ES just by averaging the values below this threshold.

However, this naive approach is not well suited for our purpose: in fact, by considering our portfolio as a single financial asset, we are losing all the information that comes from all the components; moreover, with this approach we are simply focusing on the past behaviour of the fund, while our main goal is to retrieve a risk metric for the future possible trends.

In order to overcome these issues, we propose two alternative techniques that provides better risk estimates:

- Parametric approach (simple approach and time-series modelling approach),
- Bootstrapping

The first method is very well suited for understanding the main vulnerabilities in the portfolio composition, while with the second one it is possible to observe how the metrics varied in the past quarters.

For both pieces of analysis, we used daily market prices of portfolio constituents for the past 151 trading days (covering mid-August 2025 to mid-March 2026). All the analysis has been conducted with Python.

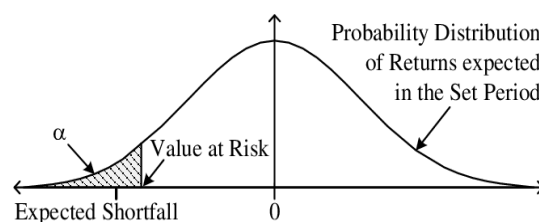
Head of Quantitative Research

Ianina Tarca: ianina.tarca@studbocconi.it

Quantitative Analysts

Lorenzo Giambra: lorenzo.giambra@studbocconi.it

Emilio De Col: emilio.decol@master.unibocconi.it



Parametric Approach

We propose to analyse VaR and ES separately for each asset included in the portfolio and then, to estimate the VaR and ES for the whole fund by taking into account the correlation between portfolio constituents.

Parametric approach is based on the assumption that returns of a financial security follow some theoretical distribution. Thus, VaR and ES can be expressed as an α -percentile of the distribution. The crucial step to accurately estimate VaR and ES is to select the appropriate distribution of returns and estimate its parameters.

It is possible to state that stock returns do not follow Gaussian distribution due to the presence of "fat tails": unexpected events might have a huge impact on the stock prices, so it is possible to observe extreme values more frequently than a Normal distribution would predict. For this reason, we assume that stock returns follow a Student-t distribution, thus, the parameters to be estimated are the mean μ , volatility σ and number of degrees of freedom ν .

To obtain more valid and robust results, we proceed with two alternative parameter estimation approaches – (a) simple approach, and (b) time-series modelling approach. For all parts of analysis, we use the last 151 return observations, which correspond to 7-months window.

Parametric Approach

Time-series modelling approach

Under the simple approach, we estimate the above-mentioned parameters in the following way:

1. We assume that the mean historical daily return of each security are a good estimate for the expected future return. Thus, μ is estimated as a simple average of daily returns.
2. Volatility of returns σ is calculated as a simple standard deviation of returns.
3. Number of degrees of freedom ν is selected in a way that it best approximates the empirical distribution of returns. In order to do that, we used the Kolmogorov-Smirnov statistic that, for a given empirical cumulative distribution function F and a proposal F_n , is:

$$D_n = \sup_x |(F_n - F)|$$

Ideally it should be equal to 0 for a perfect fit, so our goal is to minimize it by proposing different ν for Student-t distribution.

Time-series modelling approach

Because the volatility of returns is not constant over time, it is often modelled by conditional heteroscedasticity processes. The most common way to model volatility is through a Generalized Autoregressive Conditional Heteroscedasticity model GARCH(p,q), where the forecast of the next-period volatility depends on the previous p shocks to stock returns (derived from some mean model) and previous q forecasts of volatility:

$$\sigma_{t+1|t}^2 = \omega + \sum_{i=1}^p \alpha_i \epsilon_{t-i}^2 + \sum_{j=1}^q \beta_j \sigma_{t-j+1|t-j}^2$$

The advantage of GARCH model is that it allows to better estimate the current forecast of return volatility by putting more weight on more recent information. Thus, in the periods of market turbulence GARCH model will produce higher volatility forecasts than the simple average of squared deviations from the mean (see the graph at the bottom).

Because the portfolio is composed exclusively of equity instruments traded on liquid markets, we can assume that prices are efficient, and thus returns can be described by a constant mean model for GARCH(p,q) process, which implies that current mean estimates do not depend on previous returns or shocks. GARCH(p,q) then is estimated by Maximum Likelihood (MLE), which optimizes the distribution parameters. We subsequently use MLE estimates of distribution to derive VaR and ES.

Value-at-Risk

Once the parameters of stock returns are known, it is possible to calculate VaR. We estimate the VaR for 95% and 99% confidence level by applying the following formula:

$$VaR_\alpha = \sigma * T_\nu^{-1}(\alpha) + \mu$$

where σ is the estimated volatility of a security, $T_\nu^{-1}(\alpha)$ is the α -percentile of a Student-t distribution with ν degrees of freedom, and μ is the expected return of a stock

Expected Shortfall

Expected shortfall is defined as a conditional expectation of loss, given that the loss occurred. If we introduce the assumption of a continuous distribution of returns of a security, then parametric expected shortfall is simply defined as a tail conditional expectation, and thus can in general be defined by the following formula for any security X :

$$ES_\alpha(X) = -\frac{1}{\alpha} \int_0^\alpha VaR_\gamma(X) d\gamma$$

Under the assumption of Student-t distribution with ν degrees of freedom it can be proven that the expected shortfall would be given as:

$$ES_\alpha(X) = \sigma * \frac{\nu + (T_\nu^{-1}(\alpha))^2}{\nu - 1} \frac{\tau_\nu(T_\nu^{-1}(\alpha))}{\alpha} + \mu$$

where σ is the estimated volatility of a security, $T_\nu^{-1}(\alpha)$ is the α -percentile of a Student-t distribution with ν degrees of freedom, $\tau_\nu(\cdot)$ is the probability density function of Student-t distribution with ν degrees of freedom and μ is the expected return of a stock.

We estimate the ES for 95% and 99% confidence level.

Portfolio VaR and ES

Considering the correlation between the stocks, we estimate the VaR and ES of the whole portfolio for 95% and 99% confidence level by applying the following formulas:

$$VaR_{\alpha,ptf} \approx \sqrt{VaR_\alpha * \rho * VaR_\alpha'}$$

$$ES_{\alpha,ptf} \approx \sqrt{ES_\alpha * \rho * ES_\alpha'}$$

where VaR_α and ES_α are column vectors of individual stock VaR and ES, respectively and ρ is the correlation matrix between securities

The approximation arises because of the assumption of Student-t distribution of returns – the formulas above become an equality the closer the distribution of returns is to the Gaussian.

	Simple approach	GARCH
VaR_{95%}	-0.92%	-0.97%
VaR_{99%}	-1.63%	-1.74%
ES_{95%}	-1.40%	-1.50%
ES_{99%}	-2.34%	-2.35%



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TOP & BOTTOM 5 stocks (simple approach)

	VaR 95	VaR 99	ES 95	ES 99		VaR 95	VaR 99	ES 95	ES 99
Kingdom of Denmark 2.00% Nov-2028	-0.19%	-0.26%	-0.23%	-0.30%	CAMECO CORPORATION	-4.98%	-8.74%	-7.47%	-12.16%
Btp 0.45% Feb-2029	-0.27%	-0.52%	-0.44%	-0.80%	Futu Holdings Limited	-4.29%	-8.17%	-6.99%	-12.52%
Bund 0% Feb-2032	-0.30%	-0.57%	-0.49%	-0.88%	Adyen N.V.	-5.00%	-9.19%	-7.92%	-13.92%
Romania 2.875% Mar-2029	-0.35%	-0.66%	-0.56%	-1.01%	Novo Nordisk A/S	-4.93%	-9.34%	-8.00%	-14.30%
Kingdom of Sweden 0.75% May-2028	-0.68%	-0.95%	-0.85%	-1.09%	Nanya Technology	-8.59%	-12.45%	-10.96%	-14.41%

Bootstrapping

When estimating a certain metric, one of the main problems in Statistics is the lack of the whole population data and the consequent use of only a sample. In our case the population data is the complete historical price data of the securities that are part of our portfolio, in which we only have the data of recent years.

Bootstrapping is a statistical technique that by having only a sample of the population data, provides estimates of statistical metrics that are closer to the ones obtained from the population data.

Given a sample of size n , implementing bootstrap is very simple:

- Sample with replacement n times from the original sample (note that one observation could be selected more than once);
- Compute the metric of interest (in our case the VaR or ES) on this newly created sample and save it;
- Repeat the previous steps M times with $M \rightarrow +\infty$ (we have selected $M=300$ for instance);
- Average and compute the standard error of the metrics estimated in each step.

With this method, by estimating the expected shortfall and the standard errors, we can retrieve a more insightful view of our portfolio, but in this case, we are losing the risk contribution of each stock that we had in the previous case.

	Estimate	Standard error
VaR _{95%}	-1.07%	0.24%
VaR _{99%}	-1.46%	0.15%
ES _{95%}	-1.32%	0.17%
ES _{99%}	-1.53%	0.10%

TOP & BOTTOM 5 stocks (GARCH)

	VaR 95 (GARCH)	VaR 99 (GARCH)	ES 95 (GARCH)	ES 99 (GARCH)
Btp 0.45% Feb-2029	-0.19%	-0.33%	-0.28%	-0.45%
Romania 2.875% Mar-2029	-0.26%	-0.48%	-0.41%	-0.71%
Perù 2.84% Jun-2030	-0.43%	-0.62%	-0.55%	-0.72%
Kingdom of Denmark 2.00% Nov-2028	-0.18%	-0.43%	-0.38%	-0.84%
Kingdom of Sweden 0.75% May-2028	-0.61%	-0.95%	-0.82%	-1.18%

	VaR 95 (GARCH)	VaR 99 (GARCH)	ES 95 (GARCH)	ES 99 (GARCH)
Siemes Aktiengesellschaft	-4.08%	-8.37%	-7.18%	-13.91%
PT Adaro Andalan Indonesia Tbk	-4.19%	-8.65%	-7.40%	-14.37%
Nanya Technology	-9.17%	-13.20%	-11.64%	-15.23%
Novo Nordisk A/S	-3.65%	-8.39%	-7.32%	-15.96%
Futu Holdings Limited	-5.10%	-10.43%	-9.00%	-17.60%



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