MIMS – Italian Equity PIR Fund

Portfolio Management Team

Report – December 2023

Fund description

The Italian Equity PIR Fund is an actively managed fund by Minerva Investment Management Society, which exclusively invests in Italian Equity and follows an investment solution known as PIR, *Piano Individuale di Risparmio* (Individual Savings Plan), which allows to benefit from considerable fiscal advantages. To qualify as a PIR fund, a portfolio has to follow several requirements. Firstly, at least 70% of its assets has to be invested in financial instruments of companies with a long-lasting presence in Italy. Secondly, at least 25% of this 70%, that is at least 17.5% of the overall portfolio, has to be invested in financial instruments of companies which are not included in the FTSE MIB or equivalent foreign indices. Finally, at least 5% of this 70%, that is at least 3.5% of the overall portfolio, has to be invested in financial instruments of companies not belonging to either the FTSE MIB, the FTSE Italia Mid Cap or equivalent foreign indices.

The ultimate goal of the fund is to outperform its benchmark, which is made up by two indexes, the FTSE MIB and the FTSE Italia Mid-Small Cap PIR Index. Each stock was chosen keeping in mind both the requirements outlined previously and the macroeconomic outlook, with particular attention to the Italian one.

Italian macroeconomic outlook

The Italian economy is now facing a phase of stabilization due to an improvement in the banking sector, the implementation of NRRP and the higher diversification of the energy sources. On the 17th of November, such an improvement has also been recognized by Moody's with the confirmation of the Baa3 rating and a change in the Italian outlook from negative to stable. However, the main concerns on the country's debt level remain, as Italy risks that the future interest rate-growth differential sets in motion an adverse debt dynamic. Focusing on the 2024 forecast, the prediction is a decrease of the deficit/GDP ratio from 5.3% to 4.4% that will lead to a slight increase of debt/GDP ratio from 139.8% to 140.6%. According to Bank of Italy, GDP is expected to grow by 0.8% in 2024, especially thanks to the gradual recovery in household purchasing power, the expansion of consumption, the measures provided of the NRRP and the upturn of the global trade. Moreover, due to the steady fall of energy prices, the annual inflation is expected to decrease from 6.1% of 2023 to 2.7% in 2024, while core inflation is forecasted to decrease more slowly.

On the negative side, the current international tensions, linked to the conflicts in Ukraine and Middle East, constitute a major risk factor for global cyclical conditions. Therefore, possible supply tensions on global markets, which could affect energy and food commodity prices, are not to be excluded. Another element of uncertainty is the impact of a tightening of credit conditions in Italy and in the euro area that could have negative repercussions on the investment and consumption outlook.

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INVESTMENT APPROACHES

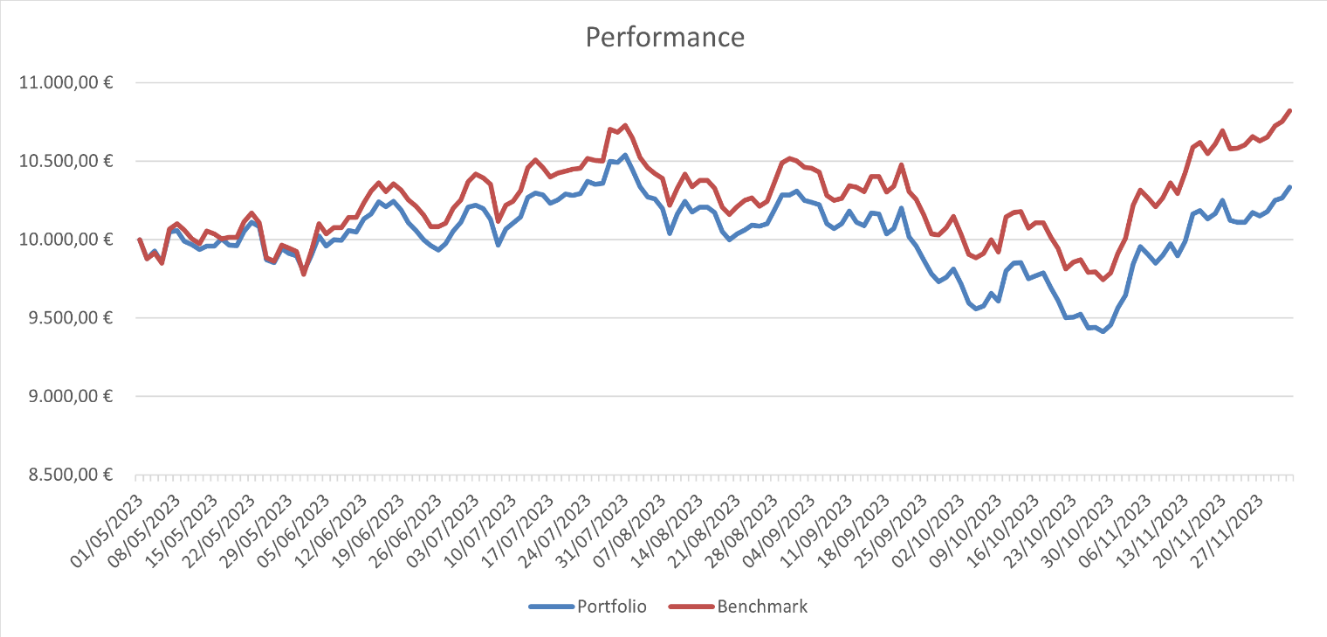
Top-Down Approach

Based on a comprehensive assessment of the current macroeconomic conditions, with emphasis on the Italian economy, the analysts identify the industries they believe to have the highest growth potential and that are expected to perform well in the current environment.

Bottom-Up Approach

Once an analyst identifies a security that appears promising, they will discuss their suggestion with the team. If the idea is approved, a detailed analysis will follow. The team will evaluate the security's long-term growth potential and conduct a thorough risk assessment on both a micro and macro level to gauge potential downside risks associated with the investment.

Past Performance



The graph above shows the performance of the last semester portfolio from 01/05/2023 to 01/12/2023 compared to the benchmark, which is made up by the FTSE MIB (60%) and the FTSE Italia Mid-Small PIR Index (40%). The portfolio has been below the benchmark for the whole period because the last 6 months have been an extremely positive time for large cap companies, which constitute the main part of the benchmark, and less favourable for the mid and small ones. Indeed, from 01/05, the FTSE MIB has grown by 12.38%, whereas the FTSE Italia Mid Cap has decreased by 1.8% (the STAR segment by 7.9%) and the FTSE Italia Small Cap has fallen by 8.6%. However, a recovery of mid and small cap companies is expected by analysts for the next year.
For the new allocation, we decide to keep Stellantis, Iren, MARR and Equita Group, as we believe that their potential is yet to be exploited.

(The starting amount in the graph is € 10 million and the values in the vertical axe are expressed in thousands)

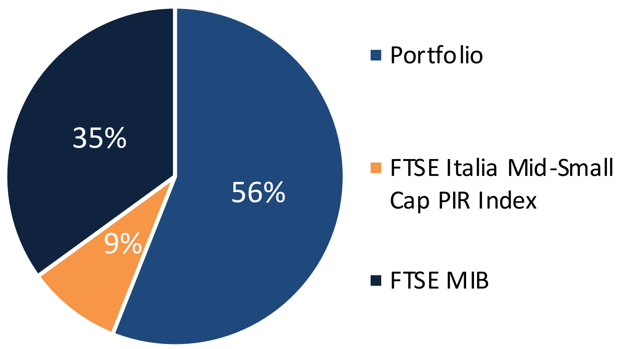
Allocation Breakdown

Portfolio Allocation

In order to limit the excessive volatility that would result from a portfolio made up of a limited number of Italian stocks, albeit diversified with reference to the sectorial exposure, 35% of Minerva Italian Equity PIR Fund is allocated to the FTSE MIB, and 9% to the FTSE Italia Mid-Small Cap PIR Index, which make up the benchmark against which the performance of the fund is measured.

The other 56% is divided among 16 stocks, carefully selected in line with our analysis of the macroeconomic outlook and their long-term growth potential. Furthermore, we believe these stocks will have limited downside risk both on a micro and macro level. The weight of each stock in the portfolio is considered on the basis of the PIR requirements outlined before, which are thoroughly respected. As shown on the side, the base weight is 3.50% for every stock. Then, the stocks which we think are going to significantly outperform the benchmark for the next 6 months are overweighted and assigned a 1.50% bonus weight, for a total of 5.00%.

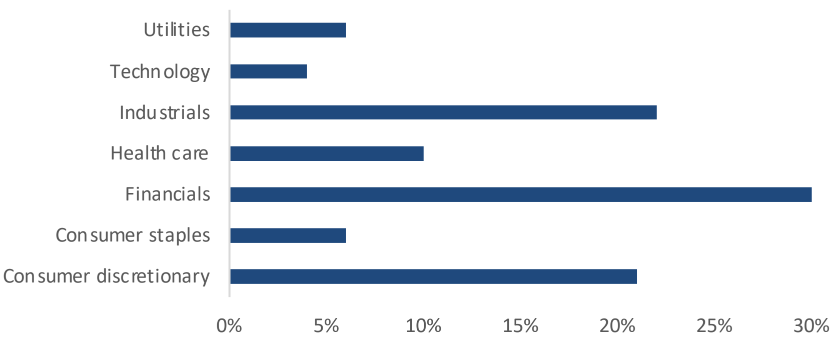
We also decide to include stock from EuroNext Growth Milan (consistently with the PIR regulation) due to their great potential; however, we gave them a lower weight (2.00%) to limit the exposure to their liquidity risk.

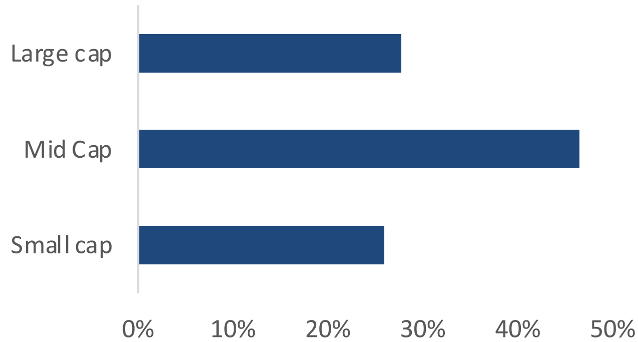


Holdings

Security	Weight
Banco BPM	5.00 %
Leonardo	3.50 %
Azimut	3.50 %
Stellantis	3.50 %
Technogym	3.50 %
Banca IFIS	5.00 %
Zignago Vetro	3.50 %
Pharmanutra	3.50 %
Danieli & C.	3.50 %
Iren	3.50 %
MARR	3.50 %
Elica	5.00 %
Cyberoo	2.00 %
Svas Biosana	2.00 %
BiFire	2.00 %
Equita Group	3.50 %

Sector Breakdown





MINERVA

Banco BPM

Company Overview

Banco BPM S.p.A., together with its subsidiaries, provides banking and financial products and services to individual, business, and corporate customers. The company operates through Retail, Corporate, Institutional, Private, Investment Banking, Strategic Partnerships, Leases, and Corporate Centre segments. It offers current accounts, home mortgages, personal loans, credit, debit, and prepaid cards, home, personal, assets, and auto and vehicle insurance, saving and investment products, as well as online trading services. It is the fourth largest Italian financial group.

Investment Case

In the current global economic environment, marked by a notable reduction in financial turbulence, discernible risks to stability persist, particularly in light of potential escalations in Middle East conflicts. Nevertheless, financial markets maintain a resilient disposition, buoyed by the anticipation of a controlled economic landing and measured inflation impacts on overall economic growth. Despite these overarching dynamics, banks, while benefiting from rising interest rates, encounter challenges related to diminishing loan demand and increased losses, notably within real estate markets.

Banco BPM's performance in 2023 stands out as robust, demonstrating resilience amidst prevailing uncertainties on the global stage. In Q3 2023, the company reported a +26.2% growth in core revenues YoY (from €3,137 million to €3,957 million) and achieved an EBT (from continuing operations) of €1,593.2 million (+63.3% YoY) with a record net profit of €943.4 million. Strategic initiatives played a pivotal role in this success, including the integration of insurance businesses, acquisition of controlling interests in Vera Vita and Vera Assicurazioni, and the attainment of financial conglomerate status from the European Central Bank (ECB). A forward-looking approach was underscored by a digital payments partnership, complemented by the issuance of green bonds, aligning with sustainable finance principles. Concurrently, de-risking efforts contributed to an improvement in credit quality. Key financial indicators attest to Banco BPM's fiscal strength: a CET 1 ratio of 14.9%, (from 13.50% in Q3 2022), a loans-to-deposits ratio of 1.08 and resilience demonstrated in the EU stress test (with better results than the previous year). Growth in earnings, convincing profitability, and a sound financial health profile are evident. The institution's Price-to-Earnings ratio stands at a competitive 6.6x, with a Price-to-Book ratio of 0.6x.

Looking ahead, Banco BPM anticipates maintaining stable net interest income, controlling expenses, and adhering to prudent credit practices. A substantial improvement in net income for 2023 is expected, surpassing previously established targets. Further details regarding updated strategic plans and shareholder remuneration targets are slated for announcement on December 12, 2023. This meticulous approach underscores Banco BPM's commitment to transparent communication and strategic foresight, enhancing its appeal as a judicious investment option. Investors are invited to observe the institution's continued adept navigation of the financial landscape, further affirming its standing as a steadfast and growth-oriented entity in the dynamic economic milieu.

Leonardo

Company Overview

Leonardo S.p.a. is an Italian industrial and technological multinational company, specialized in aerospace, defence and security. It operates mainly through the following segments: helicopters, defence and security electronics, aeronautics, space and defence systems .

Investment Case

The Aerospace, Defence & Security sector is a complex and multifaceted industry that plays a crucial role in global security and economic stability. This sector is highly dependent on contracts and is sensitive to geopolitical events, international trade policies and defence budgets.

Growth in new technologies and segments such as advanced air mobility (AAM), evolving business models in areas such as space, and the use of digital thread and smart factory are reasons for an optimistic outlook. The recent emphasis on security issues has led to a steady growth in demand for security-related goods and services. This trend is expected to continue given the ongoing global security challenges (World military spending grew for the eighth consecutive year in 2022 to an all-time high of $2240 billion).

New orders experienced a substantial increase of 14.8% on the adjusted value in the first nine months of the year, primarily attributed to the noteworthy contribution from the Defense Electronics and Security sector. This sector demonstrated significant growth across all its European components compared to the same period in 2022. The growth becomes even more noteworthy when considering that the comparative figures included a significant order acquisition for AW149 helicopters from the Polish Ministry of Defense (€1.4 billion), resulting in a book-to-bill ratio of 1.3x. The backlog reached €40,186 million, ensuring a production coverage of more than 2.5 years. Revenues also showed a positive trend, increasing by 3.5% (4.8% when adjusted). This growth was driven by a remarkable recovery in Aerostructures, with a notable 32% increase compared to the first nine months of 2022, as well as the strong performance of the Defense Electronics and Security segment. The revenue growth was accompanied by a 4.0% increase in EBITA (6.3% on an adjusted basis), indicating solid profitability across all business segments.

During this period, FOCF improved significantly by 32%, leading to a notable reduction in Group Net Debt by approximately 13% compared to last year. Over the years, Leonardo has maintained an impressive average annual earnings growth rate of 15.6%, with a consistent net margin of 5.4%.

The company's debt metrics reflect a positive trend, with the debt-to-equity ratio decreasing from 108.5% to 53.7% over the past 5 years. This reduction was driven by a €546 million decrease in debt year-over-year, largely influenced by improved Free Operating Cash Flow. Moreover, the debt is well covered by operating cash flow (33.1%), and Leonardo's interest payments on its debt are robustly covered by EBIT (8.5x coverage).

Azimut

Company overview

Azimut Holding is an Italian asset management, wealth management and investment banking company, based in Milan (Italy) with branches all over the world. The company is specialized in investment management aimed at private and institutional clients.

Investment Case

Azimut Holding has been growing earnings at an average annual rate of 18.1% over the past five years, an outstanding value compared to 7.1% of the capital markets industry. Revenues have been growing at an average rate of 12% per year with net margins of 27.5%. With a debt-to-equity ratio to 27.8%, AZM has an interest coverage ratio of 69.3x.

Looking at the 3Q23, the group's net inflows increased by 23% YoY, reaching €7.5 billion and total assets increased by 14% YoY, reaching €87.5 billion. Adjusted net profit increased by 15% YoY, reaching €348.9 million in the first nine months of 2023 and the cost-to-income ratio improved to 54.5%, compared to 56.5% in 9M 2022. The group's return on equity improved too, with a proposed dividend of €1.50 per share for 9M 2023, representing a 25% YoY increase (current yield of 5.88%).

Moreover, AZM is good value based on its PE Ratio (7.3x) compared to the European Capital Markets industry average (15.3x).

Currently the Azimut Group's is focalizing their attention on the launch of new investment products, including a sustainable equity fund and a private equity fund focused on the healthcare sector, the expansion of the group's distribution network (Brazil, UAE, Mexico), the continued growth of the group's digital wealth management platform (Sanctuary), the implementation of artificial intelligence and machine learning to improve investment decision-making, committing to sustainability and the integration of ESG factors into investment decision-making. These measures will enable Azimut to achieve some key targets, such as reaching €100 billion in AUM by the end of 2024, increasing net inflows to €10 billion per year, expanding the group's distribution network, with a focus on EM and maintaining a strong dividend policy, with a payout ratio of at least 50% of adjusted net profit.

One of the most significant developments is the partnership with UniCredit: Azimut will establish and independently manage a management company in Ireland that will develop investment products to be distributed in Italy through the Unicredit network on a non-exclusive basis (expected kick-off Q1 2024).

Being Azimut fully committed to sustainable and high growth, profitability and returning value to shareholders, we think it is a strong company to add to our portfolio.

Technogym

Company Overview

Technogym SpA engages in the manufacture and marketing of fitness equipment and provides fitness products and solutions. The firm operates both on a B2B and B2C level, through the following distribution channels: Fitness and Wellness Clubs, Hospitality and Residential, Health, Corporate & Performance and Home & Consumer. It was founded by Nerio Alessandri, who is still the CEO, in 1983 and it is headquartered in Cesena.

Investment Case

The financial position of the company is extremely solid: as far as its balance sheet is concerned, the firm has managed to significantly reduce its degree of leverage over the past few years, going from a Debt-to-Equity ratio of almost 43% in 2019 to 14% as of 2022.

Furthermore, Technogym reported negative net debt in the last fiscal year, which further reinforces the aforementioned view on its financial stability. This is mainly due to the high cash reserves (more than €205 mln) recorded in the 2022 balance sheet, which will likely allow the company to pursue a relatively "cheap" expansion in the healthcare sector, as stated in its Business Plan. Indeed, one the of main goals that the CEO Nerio Alessandri has set out to achieve in the future is for a doctor to prescribe "one hour of Technogym" to its patients.

As far as the stock is concerned, it stands out for a pretty high EPS and ROE, both of which are expected to grow in the next two years from their current level of 0.33 and 20% respectively. This positive change will be driven by a sharp rise in net income, which is forecasted to experience a 50% increase by 2024. In addition, the stock is relatively cheap nowadays, especially if compared to the pre-war period (P/E ratio of 21.8x in 2022 vs 33.2x in the previous year).

Ultimately, it is worth noticing that the beta of the company is lower than one, which might benefit the performance in case of market downturns.

Banca IFIS

Company Overview

Banca IFIS is an independent banking company, which engages in the provision of financial solutions for enterprises. It offers business and personal banking services, as well as non-performing loan management. It was founded by Sebastien Egon von Fürstenberg in 1983 and it is headquartered in Venice.

Investment Case

Banca IFIS might represent a valuable investment opportunity for a series of reasons.

First of all, the company stands out for the very high Total Capital Ratio (18.5%) which is well above the required threshold and represents a safe buffer in case of economic downturns.

Furthermore, a key component of the firm business is the management of non-performing loans, which are expected to increase in the next 2 years. On top of that, this activity makes the bank naturally hedged against the rising credit risk entailed by the high interest rates environment, while allowing it to benefit from the higher interest income that comes from it.

In addition, the EPS is forecasted to almost double in the next two years (going from 1.72 in 2021 to 3.1 in 2024), while the P/E ratio is currently very low (5.3x in 2022), which makes the investment in the stock potentially highly profitable.

Another fact to take into account is the lower-than-one beta of the company, which represents a useful hedge in case of market downturns.

Zignago Vetro

Company Overview

Zignago Vetro operates in the production and marketing of high-quality hollow glass containers

prevalently for the Food and Beverage, Cosmetics and Perfumery and "Specialty Glass" sectors (highly customized glass containers produced in small batches, typically used for wine, liquors and oils).
It has a B2B model, supplying containers to its clients, which are then used in their respective industrial activities. Specifically, in the Italian market, the firm is one of the leading producers and distributors of glass containers for the food and beverage sector, whilst at an international level it has a strong market share in the cosmetics and perfumery and specialty glass sectors. The company was founded in 1979 and is headquartered in Fossalta di Portogruaro.

Investment Case

Investing in Zignago Vestro might be a profitable opportunity for different reasons.

Firstly, despite a small drop in demand, the company was able to maintain strong results and expects the medium-term prospects for the use of glass as a packaging material to remain positive (with both revenues and net income that are forecasted to increase in the next two years).

Furthermore, it is still heavily committed in optimizing production, mitigating inflationary pressures and containing costs, for instance by modernizing and upgrading plants, which reinforces the optimistic view on how the firm will navigate the current macroeconomic scenario.

As far as the stock is concerned, it stands out for a pretty high ROE (more than 30%) and an EPS which is expected to rise in the next two years from its current level of 0.99 to 1.26 at the end of 2023.
On top of that, the stock is relatively cheap to buy nowadays compared to the period before the Ukranian war, as shown by a current P/E ratio (14x) that is almost half of the 2021 value.

Ultimately, it is worth noticing that the stock offers a pretty decent dividend yield (6.2%) and has a beta that is lower than one, which might benefit the performance in case of market downturns.

Pharmanutra

Company Overview

Pharmanutra engages in the research, development, and marketing of nutraceutical products. The group's activities are organized around 3 product families: food supplements and anti-inflammatory products; medical devices, generic drugs, and over-the-counter products, as well as infant nutritional supplements; bioactive ingredients and active pharmaceutical ingredients intended for the pharmaceutical, agri-food and nutraceutical industries. The company was founded by Andrea Lacorte and Roberto Lacorte in 2003 and is headquartered in Pisa.

Investment Case

Investing in Pharmanutra could be a promising opportunity for several reasons.

First, the financial position of the company is extremely solid: the level of net debt is negative, which is mainly due to the large cash reserves the firm holds and which might leave space for "cheap" investments in the future. Indeed, intangible assets, which for a pharmaceutical company usually represent the core of its business activity, are expected to increase in the next two years.

Furthermore, the corporation is currently implementing its expansion (set out at the end of 2022 through the constitution of Pharmanutra USA) in the US, which is therefore yet to be fully exploited and might increase the company's margins.

As far as the stock is concerned, it stands out for a high ROE (more than 27%) and an EPS which is expected to rise significantly in the next two years from its current level of 1.53 to 2.23 at the end of 2025.

Ultimately, it is worth noticing that the stock, belonging to the pharmaceutical industry which is extremely conservative, has a beta that is lower than one, thus representing an effective hedge against the risk of a future recession.

Danieli & C

Company Overview

Danieli & C. Officine Meccaniche SpA engages in the production and installation of innovative machinery and plants worldwide for the iron and steel industry and for the non-ferrous metals sector. It operates in the following business segments: steel making, that comprises the production and sale of special steel, and the plant making, that concerns the production and sale of plants for the iron and steel industry.

Investment Case

In the face of economic uncertainty, Danieli's plant-making segment stands out as well-positioned. Innovations like MIDA QLP and QSP-DUE plants have garnered global attention, not only for reducing capital and operating expenses but also for their significant impact in reducing CO2 emissions. The introduction of the environmentally friendly DigiMelter, capable of utilizing sustainable energy sources, has attracted interest from both traditional and developing markets.
Moreover, the Energiron Direct Reduction process, utilizing up to 95% hydrogen, positions Danieli as a leader in green steel production. The subsidiary FATA's involvement in solar power production further reinforces the company's commitment to sustainable energy.

Financially, Danieli shows (in its financial statement closed on the 30th June 2023) a 13% growth in revenues, reaching €4,102.1 million, with a forecasted increase to €4,300 million for 2023/24, and an increase of 11% in net profit, touching €243.6 million.
The extremely negative NFP of €1,602.8 million (cash higher than debt), due to the advances and a good financial management, and a low debt-to-equity ratio of 11.2% are key drivers for future investments, especially in R&D, to keep up with the technological innovation and expansions.

Considering a Price-to-Earnings Ratio (8.3x) below the Italian Machinery industry average (11.9x), Danieli appears to be undervalued. With a forecasted growth in revenue (4.8%), and a solid Return on Equity (ROE) of 10.1%, Danieli emerges as a strong candidate for investment.

Elica

Company Overview

Elica SpA is a leading name in the realm of kitchen utilities, particularly known for its innovative kitchen range hoods and central heating boiler motors. Their geographic footprint is expansive, with a commanding presence in Europe, the Middle East, and Africa, accounting for a hefty 78.4% of their net sales. The Americas contribute a significant 14.6%, while other global markets make up 7%. Elica distinguishes itself through its strategic global divisions. In Europe, the focus is on range hoods and electronic motors, while the American segment tailors its products to align with the region-specific demands.

Investment Case

The company present an increasing but oscillating trend in revenues in the latest historical years, going from €480mn in 2020 to €549mn in 2022, to slightly decrease to €513mn in 2023: however, regardless of the cyclicality of the business, Elica has demonstrated a consistent improvement in its operational efficiency, showing a steady increase in margins in the latest years, as seen in the expansion of EBITDA margin from 7.8% in 2020 to 9.5% in 2022, to a consensus estimate of 10.5% this year. It's also noteworthy to point out that the company can rely on geographically diversified revenue streams, with sales showing an upward trajectory especially cross-border and in the motor division. This division, though relatively new, has shown a promising growth potential, with its relative share of revenues going from 12% in 2020 to 22% in 2022.

The company showcases prudent cash management and solid financial structure, corroborated by a gradual deleveraging trend in the balance sheet and a solid interest coverage ratio (which has improved from 4.1x in 2020 to 8.8x even amidst economic uncertainties). To complete the narrative, persistent commitment to capital expenditures (which has grown significantly in the latest years, particularly to consolidate the new business segment) represents a long-term investment in growth and sustainability of the business.

Elica PE ratio (10.8x) is extremely favorably compared to its international competitors in the house appliances market, which currently prices a median PE ratio of 20.4x (the sample takes into consideration 8 representative companies in the market segment).

On top of that, the stock's low beta is indicative of its stability in a volatile market, making it an attractive option for investors looking to diversify their portfolio with a resilient sector player.

In conclusion, Elica's financial performance and strategic global positioning offer a strong case for investment. Their sustained growth in revenue and margins, combined with a solid financial standing and competitive market valuation, make Elica SpA a compelling candidate for investors seeking stable yet growth-oriented exposure in their portfolios.

Cyberoo

Company Overview

Cyberoo SpA is fast growing company particularly active in the cybersecurity market, which provides information technology solutions for the management, optimization, and support of business information systems. Net sales are broken down by the following services: provision of managed security services (70.8%), developing cybersecurity solutions (28.1%) and management of business digital transformation processes (1.1%).

Investment Case

Cyberoo presents an historical revenue profile characterized by a rapidly expanding growth pattern (with an average growth rate of 44% from 2019 to 2022 and an expected increase of 39% from €16mn in 2022 to a consensus estimate of €22mn in 2023) and the persistent improvement in major profitability measures (EBITDA margin has grown from 30% in 2020 to 42% in 2022), which are expected to be reaffirmed in 2023 and growth consistently in the next years. This promising financial profile, combined with a set of strong drivers of comparative advantage (such as their distinctive innovation ability and know-how in developing cutting-edge tools) make Cyberoo a credible candidate to become a market leader in the cybersecurity market, with a forecasted average CAGR of 12% in the next years. Future business expansion is supported also by strong and growing investments in software and technologies, with CapEx growing at an average rate of 15% in the 2020-2023 time frame.

On top of that, Cyberoo presents an extremely solid financial condition, with negative net debt position and a strong coverage (interest coverage went from 2.03 in 2020 to 18.1 in 2023), supported by the high growth profile of earnings (from €56k in 2020 to consensus €5mn in 2023).

Current PE ratio (trailing) is 29.8x, while the forward one (using 2023 end-of-the year estimates) is expected to halve to 15.4x, with a valuation significantly lower than the median 30.8x PE ratio (forward) of international market comps operating in the cybersecurity business.

Solid financials lie the foundations for organic growth in revenues and margin expansion, surfing the increasing wave of digitalization and investments in cybersecurity, both at a private and public level. An important consideration to be made is the strong potential for expansion through M&A activity, or the possibility of being acquired at a premium by strategic buyers or financial sponsors in a market increasingly concentrated (lower deal volume but higher deal value in 2023 compared to the previous year). Lastly, certifications on licensed software and patented technologies present a credible lifebelt in retaining market share.

Svas Biosana

Company Overview

Svas Biosana S.p.A. is an emergent name in the medical devices sector, with a specialized focus on manufacturing and distributing products for health institutions. Its operations span two primary divisions: production and sale of medical devices (Svas Biosana, Medical and FARMEX), ranging from incontinence aids, dressings, hygiene and personal care products to procedural packs for operating rooms and surgical instruments; and distribution of medical devices (Mark Medical). With a strong geographic presence in Italy (60%) and expanding footprints across the European Union (31% of sales), Svas Biosana stands as a prominent player in the healthcare supplies industry.

Investment Case

The medical device market in Italy has been experiencing an historical growth rate (CAGR) of 5.7% in the past 10 year, a trend which is expected to increase consistently with the ongoing secular trend in aging population and the consequent rising demand for healthcare services and technological advancements. Sales have showed a steady increase from €76 million in 2020 to €97 million in 2022 and, with a consensus estimate of €111 million in 2023, are expected to maintain a solid growth profile in the next year, supported by expanding investments in research. EBITDA and Net Income have followed suit (EBITDA margin from €7.8 million in 2020 to a consensus €14.2 million in 2023), indicating operational consistency across the years. In the latest years, the company has been deleveraging its financial structure and improving its earnings profile, as shown by the significant improvement in key solvency ratios (interest coverage went from 2.06 in 2020 to 3.5 in 2022).

Current PE ratio stands at a competitive 9.5x, lower than a median 12.3x of current market comps (considering a sample of 8 international peers with a geographical focus in Italy and Europe). The trajectory for 2023 forecasts a continuation of revenue and profit escalation, underpinning a robust growth narrative. Furthermore, an important catalyst to be considered is Svas Biosana's recent equity issuance and cash piling, which represents a strategic move to fuel vertical growth and consolidation of business divisions through strategic acquisitions, optimizing and enhancing its geographic presence. On top of that, strong market barriers and procedural certifications provide a defensive moat against competitive pressures. Svas Biosana presents a compelling investment proposition anchored by its strategic growth initiatives, solid market positioning, diversified revenue streams and prudent financial management. The company's commitment to expanding its operational scale and efficiency is expected to drive long-term shareholder value. Thanks to its vigilant eye on the evolving market landscape and a resilient business model, Svas Biosana is well-positioned to navigate the complexities of the healthcare sector and deliver sustained financial performance. Important risk factors to be considered are the company’s levered capital structure and operational necessity to improve efficiency in receivables turnover.

BiFire

Company Overview

BiFire SpA engages in the manufacture of thermal insulation and fire protection products for construction, industry, and marine sector. It operates under the fire protection, which offers fiber-silicate calcium-based sheets, and the thermal insulation segment, which provides insulating plates applied to the walls of buildings.

Investment Case

The company present an impressive sales trajectory, with sales climbing from €19mn in 2020 to €42mn in 2022 (average growth rate of 48% for the two years) but expected to remain stagnant in 2023. However, profitability margins have been capable to keep up with this growth path of revenues, maintaining a higher-than-average (20%) EBITDA margin with respect to market competitors, indicating operational efficiency and profitability. The EBITDA nearly tripled from €3.8mn in 2020 to €8.7mn in 2022, while Net Income more than doubled in the same period.

The company exhibits a negative net financial position, showing gradual increase in cash holdings in the 2020-2023 time frame, which in turn highlight good cash management in operational activities (working capital). The impressive solvency measures (>60x for the interest coverage ratio) reflect a very comfortable ability to cover financial costs.

BiFire SpA 's IPO in August 2023 marked a significant milestone, with its trailing (12 months) PE ratio of 10.30x positioned attractively lower than comparable firms in the thermal insultation European market. This could entail an investment opportunity, as revenue has grown very rapidly, bringing operational inefficiencies that are expected to be smoothed away in the long-term, leaving potential for further margin expansion in the coming years: to this extent, asset turnover has been improving (from 0.9x in 2021 to a consensus 1.2x for 2023), indicating efficient use of assets in generating revenue. Furthermore, the company's adherence to high standards via ISO certifications ensures it remains a preferred vendor in its market segments, with strong partnerships with government-owned and government-sponsored enterprises, both at an Italian and European level: in the course of 2023, BiFire has continued its expansion and consolidation in the European market (especially in Germany) by raising new capital and launching of a new production line.

In conclusion, with 83% of net sales generated in Italy, BiFire S.p.A. is capitalizing on a domestic market growing at a 6.4% CAGR. As a matter of fact, the company presents an attractive proposition for investors, with a combination of strong financials, market leadership in Italy, expanding presence in Europe, and a clear path to continued growth and efficiency gains. On top of that, the countercyclicality of the stock represents a solid hedge toward potential market downturns, and an opportunity to diversify the portfolio with a high-quality pick.

Quantitative Research Team

Risk Report – December 2023

Introduction

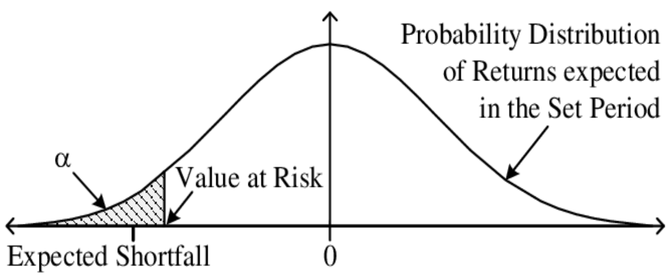
The main objective of this section is to assess and quantify the risk embedded in the Minerva IMS Italian Equity PIR Fund fund built by the portfolio team. We use a daily perspective on the potential extreme behavior of a basket of assets selected by the portfolio analysts. The analysis will include 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 Investment Risk 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 α% of probability over a time horizon of 1 day. For instance, if the VaR (α=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 α% 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.



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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 behavior 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 6 months,. All the analysis has been conducted with Python.

Parametric approach

In this section we propose to analyze 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 it's 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 252 return observations, which correspond to 1-year window.

Simple 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 Fn, is:

$$Dn\text{=sup}x|(Fn{-}F)|$$

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.

Parametric approach (continued)

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:

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

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:

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

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

where $\boldsymbol{VaR_\alpha}$ and $\boldsymbol{ES_\alpha}$ are column vectors of individual stock VaR and ES, respectively and $\boldsymbol{\rho}$ 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.

Results

GARCH results appear to be slightly lower than the simple approach ones, potentially due to the less volatility in the markets lately. Indeed, GARCH puts more weight on the most recent observations, thus, it better estimates the future volatility and allows to produce more reliable risk metrics.

	Simple approach	GARCH
$VaR_{95\%}$	-2.24%	-1.77%
$VaR_{99\%}$	-3.22%	-2.78%
$ES_{95\%}$	-2.85%	-2.41%
$ES_{99\%}$	-3.76%	-3.51%

TOP & BOTTOM 5 stocks (simple approach)

	VaR 95	VaR 99	ES 95	ES 99
EQUI.MI	-2.16%	-3.08%	-2.73%	-3.55%
IPIR.MI	-2.27%	-3.29%	-2.90%	-3.86%
IMIB.MI	-2.35%	-3.35%	-2.97%	-3.87%
PHN.MI	-2.64%	-3.85%	-3.39%	-4.52%
ELC.MI	-3.09%	-4.39%	-3.89%	-5.06%

	VaR 95	VaR 99	ES 95	ES 99
LDO.MI	-3.98%	-5.61%	-4.98%	-6.44%
IRE.MI	-4.03%	-5.64%	-5.02%	-6.47%
BAMI.MI	-4.44%	-6.50%	-5.72%	-7.64%
FIRE.MI	-5.17%	-7.36%	-6.52%	-8.53%
SVS.MI	-5.25%	-10.04%	-8.58%	-15.43%

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→+∞ (we have selected M=100.000 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
$VaR_{95\%}$	-2.47%	0.47%
$VaR_{99\%}$	-3.81%	0.96%
$ES_{95\%}$	-3.25%	0.48%
$ES_{99\%}$	-4.60%	0.99%

TOP & BOTTOM 5 stocks (GARCH)

	VaR 95 (GARCH)	VaR 99 (GARCH)	ES 95 (GARCH)	ES 99 (GARCH)
IMIB.MI	-1.56%	-2.38%	-2.07%	-2.87%
EQUI.MI	-2.15%	-3.23%	-2.83%	-3.88%
BAMI.MI	-2.26%	-3.29%	-2.89%	-3.81%
PHN.MI	-2.31%	-3.28%	-2.91%	-3.77%
STLAM.MI	-2.41%	-3.45%	-3.05%	-3.98%

	VaR 95 (GARCH)	VaR 99 (GARCH)	ES 95 (GARCH)	ES 99 (GARCH)
AZM.MI	-3.41%	-5.76%	-4.93%	-7.67%
LDO.MI	-3.85%	-6.90%	-5.89%	-9.84%
IRE.MI	-4.33%	-7.18%	-6.19%	-9.54%
SVS.MI	-4.04%	-8.57%	-7.33%	-14.54%
FIRE.MI	-10.60%	-19.44%	-16.63%	-28.66%