



White Paper

The 7 Golden Rules of Thematic Investing



GALILEE AM
Thematic Investors



Introduction

Due to the proliferation of thematic funds and the emergence of new mega-trends over the last decade, navigating thematic investing has become exceedingly complex. Since the term "thematic fund" is not legally defined by current regulations, portfolio management companies tend to use the term "thematic investing" in a non-standardized manner, based on heterogeneous criteria, sometimes even specific to each portfolio manager.

However, the rise of thematic funds is undeniable, with assets under management in thematic funds more than tripling from 2019 to 2022, reaching nearly \$806 billion¹. Indeed, themes tend to make financial investments more tangible for investors, whether they are individuals or institutional, as they can more easily grasp the meaning behind their asset allocation.

Nevertheless, thematic investing comes with several pitfalls to avoid, starting with funds that adopt a purely marketing thematic facade in order to profit from the growing investor's attention for thematic investments and the current attraction of thematic investing.

The compilation of our 7 golden rules, therefore, serves as a practical guide for any investor looking to venture into thematic investing.

About the Author

Founded in 2000 and with offices in Strasbourg and Paris, Galilee Asset Management is renowned for its multi-theme expertise in fund and security selection. It provides investment solutions for individual clients, professionals, and institutional investors. Its entrepreneurial structure and financial independence from any banking or insurance network guarantee a high degree of freedom in its investment decisions.

With the aim of approaching thematic management from an innovative perspective, the management team has developed a quantitative and qualitative research tool to identify major future trends and constructing portfolios of thematic funds and ETFs: the "Codex of Themes". This tool enables our managers to build portfolios consisting of thematic funds and ETFs that are poised to benefit from these long-term mega-trends and the growth of their respective markets.

¹ Morningstar, Global Thematic Funds Landscape Report, March 2022



The golden rules of thematic investing presented below apply to the selection of financial assets for portfolio construction.

Golden Rule #1: Do not confuse thematic investing with sectoral investing.

All too often, either through linguistic misuse or an attempt to add more substance to a sectoral investment choice, many portfolio managers use the term "thematic" or related terminology to refer to a sector. It is quite common for a manager to claim they are investing "in the thematic of semiconductors," or "in the thematic of energy." This likely stems from the fact that in everyday language, the term "thematic" is often contrasted with the term "generalist." For example, one might say a thematic television channel, as opposed to a generalist television channel. In everyday language, the term "thematic" often carries a connotation of sectorization, and people frequently use the expression "a very specific theme" when they want to discuss a precise subject that they intend to clearly separate from the rest of their discourse.

However, we should not confine a theme to the notion of a compartment or sector. In fact, the term "thematic" is defined by the dictionary as "a set, an organized system of themes (conscious and unconscious)."² This invites us to think of a theme as a conceptual whole and not just as a mere branch. Thus, defining an investment theme solely as a panel of companies that resemble each other because they belong to the same economic sector is not semantically accurate. We could even say that the confusion between sectoral and thematic investment is detrimental to both investment philosophies because they are, in reality, very distinct.

Referring to a sector or industry as a thematic category is an error in the sense that it doesn't lead us to perceive investment by imagining it through an "organized system of themes." Indeed, this nomenclature is much richer, as it implies that very

“ We cannot limit a thematic to its notion of compartment or sector”.

different companies, and by extension, from different sectors, can be grouped under the same theme as long as their activities contribute to the same theme.

Let's take two companies as an example: Roche and Carnival. The first company is Swiss and operates in the healthcare sector, specifically in pharmaceuticals and diagnostics. The second company is American and operates in the tourism sector, particularly in the cruise industry. Despite originating from two very different sectors and offering entirely distinct services, both of these companies are part of the Silver Economy theme – the economy related to the aging population.

Indeed, both of these companies generate a significant portion of their revenues from seniors³, and more importantly, they structurally benefit from the expansion of this reference market due to the continuous increase in the global senior population resulting from the rise in life expectancy.

Based on this observation, an investor might be inclined to invest in the thematic area of the Silver Economy without necessarily investing in the healthcare or tourism sectors as a whole. As a result, portfolio managers will have the ability, through thematic investing, to completely reshape their security allocation within the portfolio by grouping them according to themes rather than sectors or geographic regions.

Measuring a company's activity in relation to a specific theme is a revolutionary way of conceptualizing investment.

Hence, it is crucial not to undermine thematic investing by confusing it with sectoral investing. Constructing thematic asset allocations entails, for the portfolio management industry at large, as well as for the managers who adopt this approach,

² Le Petit Robert (translation from French version) : <https://dictionnaire.lerobert.com/definition/thematique>

³ Cruise Lines International Association (CLIA) Global Passenger Report 2020



a conceptual reflection on companies that are economically driven by the same catalysts or origins in both the present and future world.

Rule #2: Do not confuse a theme with a market segment.

Thematic investing should also not be confused with investing in a market segment. Just as with the previous guideline, it's quite common to hear a portfolio manager express that they have invested "in the theme of German midcaps" or "in the thematic of emerging market large caps," for instance. However, these market segments themselves are not themes, and it's important to emphasize this distinction. The term "thematic" is once again being used for its simplest characteristic of subdividing or segmenting, but the error lies in overlooking the conceptual dimension of a theme. Describing a market segment using the term "thematic" is semantically incorrect, as a market segment is not by any means an "organized system of themes." Indeed, categorizing several companies added to a portfolio by their market capitalization size and geography does not make them companies driven by the same "theme."

Let's take the example of Nemetschek (software for digitizing the construction sector) and HelloFresh (home meal delivery), two stocks that belong to the German midcaps segment. Geographically, these two companies are based in the same country and are of similar size. In portfolio management, it might make sense to hold these stocks due to their membership in the segment of medium-sized German companies.

However, this does not compel the conceptual work that a thematic manager must necessarily undertake to identify the reasons that make these two companies related by one or multiple themes, and therefore, by a theme. These two companies might have nothing in common apart from their size and geography. The portfolio manager in this scenario has conditions that are neither sufficient nor even necessary to talk about an investment theme.

“ The mistake is to neglect the conceptual dimension of the **Thematic** by confusing it with a market segment” .

Golden Rule #3: Do not confuse the economic perspectives with the financial market potential of a theme.

As stated in the introduction of this White Paper, an investment theme derives from the economic potential unleashed by the shifts in the current and future world. Given that the world is constantly changing and consistently exposed to structural and sometimes disruptive transformations, a theme is inherently dynamic and evolving.

This evolutionary aspect can manifest as a certain level of forward thinking: an investment theme may exhibit promising economic growth without necessarily being reflected in the stock performance of its underlying assets. This is referred to as a disparity between economic prospects and the stock potential of the theme. Such discrepancy can be observed in the stock prices of the companies within the theme. For instance, market participants might not witness an appreciation in the stock prices on financial markets for a certain period, despite the favourable economic prospects of the theme to which these companies belong. This scenario also applies to their valuation ratios, which might not experience re-rating for some time, even in the face of positive economic prospects for their activities.

Conversely, stocks within a theme can become excessively valued due to promising economic news or sudden market enthusiasm scenarios can be examples of this (speculative stocks being one instance).

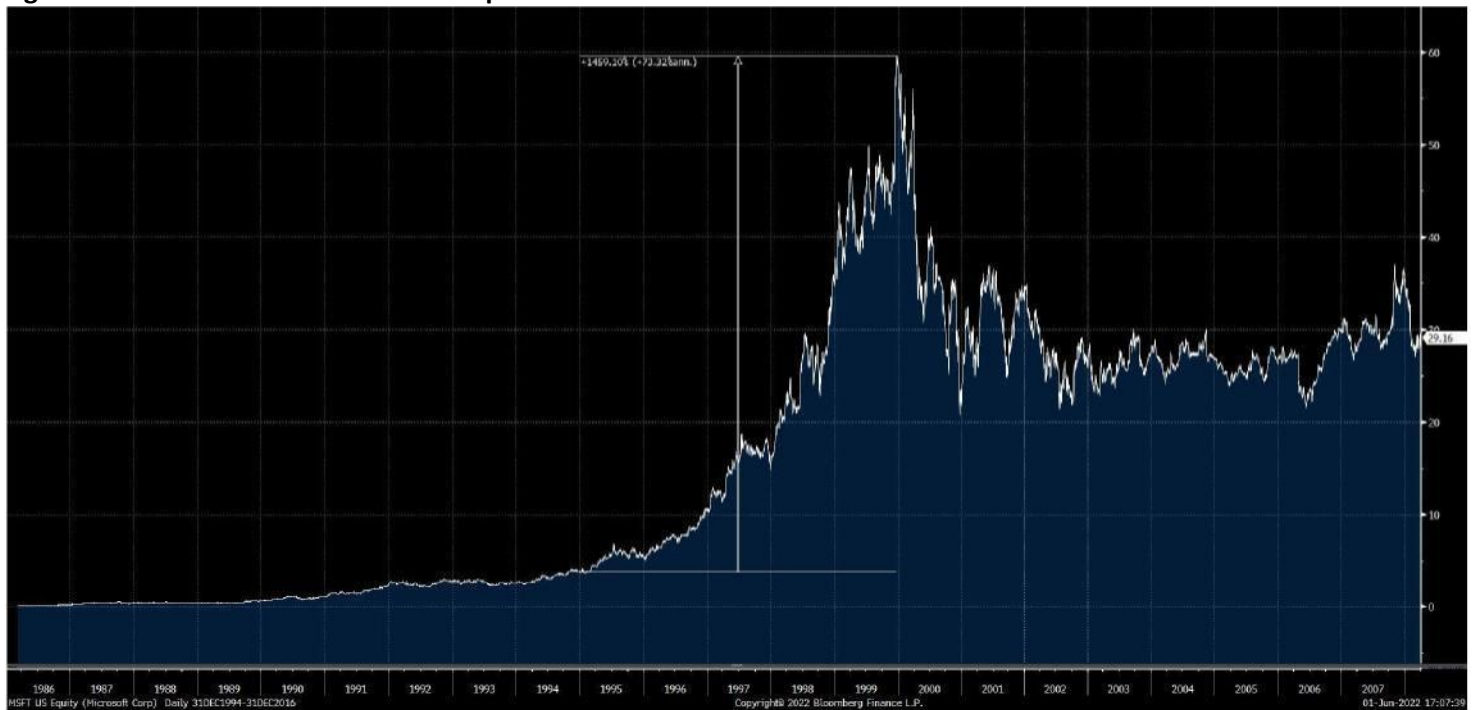


The risk in such a situation is the abrupt normalization of prices and valuations of underlying assets in the subsequent years, to the detriment of stock performance – the stock potential is significantly reduced. A striking example is the case of Microsoft's stock, associated with the theme of digitization. During the internet bubble, the multinational technology company witnessed its stock price soar in just a few years (by more than 1400% in 5 years), reaching a record price of 59.97 USD in December 1999 (see Figure 1).

Today, many themes have seen significant increases in stock prices and valuations over the past years. Themes like Gaming & Metaverse or Clean Energies are prime examples, with companies related to blockchain or hydrogen experiencing substantial growth in recent years. As a result, investors need to refine their analysis by considering the stock market potential of the theme.

In summary, an investor's exposure to a specific theme should not be considered without taking market timing

Figure 1: Evolution of Microsoft's stock price from 1986 to 2007.



Due to the collapse of technology stock prices during the early years of the following century, this previous high was not revisited until October 2016, nearly 17 years later. However, over the same period, Microsoft's revenue multiplied by more than four times (see Figure 2), and earnings per share increased by 160%. The same pattern holds true for many similar companies over that time frame. Overall, despite the attractive economic prospects of the theme, Microsoft's stock potential at the beginning of the 21st century was compromised due to its excessively high valuation.

into account, in order to assess the opportunity of investing in a theme. They should not only study the economic projections (whether the market is mature, promising, etc.) but also the stock potential (whether the underlying assets are appropriately valued). These two aspects (economic and stock potential) can evolve in a correlated, uncorrelated, or sometimes even inversely correlated manner. While sustained stock potential generally relies on economic prospects, stock potential is not always automatic and immediate even if the economic prospects are promising.



Figure 2: Comparison of Microsoft's stock price and its revenue over a 20-year period.



Golden Rule #4: Do not believe that ESG is a theme

The ESG (Environmental, Social, and Governance) approach to investments is at the very least a necessary filter within a management process and, at best, a distinct management technique. However, many asset management firms claim to develop a range focused on the "ESG theme." This expression is quite confusing, as ESG investing is not a theme but a strategy that involves selecting securities considering environmental, social, and governance practices. For portfolio managers incorporating ESG criteria, the goal is to evaluate how a company impacts the planet, its societal influence, and how it is managed. Nevertheless, having a high ESG score for a company doesn't make it a part of a theme. You cannot deduce from an ESG score that a company's activities contribute to a theme found in the present and/or future global economy. The ESG approach and thematic investing are not mutually exclusive, but it is incorrect to assume any direct connection between ESG and themes.

That being said, it's not uncommon to find thematic funds labelled as "impact funds."

Take, for example, the Pictet Water Fund, which focuses on the Water Cycle theme while also having a sustainable purpose in reducing negative environmental externalities. In this case, the Pictet Water Fund emerges as one of the most virtuous within the theme, once again demonstrating that a diversity of funds and companies makes up a theme, with some having a sustainability focus and others not. Therefore, it's essential not to confuse the cause and the purpose. The cause is that companies present in the Pictet Water Fund, and generally in the Water Cycle theme, are generally conscientious about environmental preservation or have undertaken actions in this regard due to their involvement with a renewable yet scarce natural resource.

The consequence is that ESG is highly prominent within this theme, but it's not an evident prerequisite. The ESG approach is not a theme in its own right, but ESG factors can be found in many themes, especially since themes often stem from structural disruptions in the global economy that increasingly consider ESG factors worldwide.



Golden Rule #5: A theme must necessarily stem from one or more megatrends.

The objective of thematic investing is to identify, regardless of their location in the world and without geographical or sectoral constraints, the companies best positioned to benefit from the themes that will take center-stage in the coming decades. Thus, thematic investing inherently relies on identifying megatrends. A megatrend is a long-term global structural trend whose effects transform the world of today and tomorrow, creating a multitude of investment opportunities.

The newspaper "Investir" in Switzerland analyses megatrends as follows:

"Megatrends have a considerable and lasting impact on the economic, political, and social structures that shape society. True transformative forces, they are ubiquitous, enduring, and have an international scope. They can shake, or even annihilate, economic models, companies, and even entire sectors, but they open the door to new perspectives and opportunities."

Therefore, asset allocators aiming to move away from the traditional regional and sectoral segmentation of a portfolio can achieve this through a thematic allocation approach. However, for a company to belong to a theme, it is not enough for it to market a product or service that is loosely related to a systematic set of ideas. Otherwise, anything and everything could be labelled as a theme, which we've already dismissed. In essence, if we consider that thematic management aims to identify companies that belong to the themes that will shape the world of tomorrow, a company that manufactures traditional door locks, for example, is not part of what is referred to as a forward-looking investment theme.

On the other hand, the company Johnson Controls International, which manufactures smart locks or fingerprint locks, is a company that contributes to the digitization of security – one of the areas with numerous advancements that significantly innovate to create a safer world of tomorrow. Thus, it is driven by two megatrends: the Digital Revolution and Robotics, and the New Modes of Consumption.

For a company to genuinely claim membership in a theme, a significant portion of its revenue must, therefore, contribute to one or more future megatrends.



Thematic investing inherently relies on megatrends.

Golden Rule #6: A theme must necessarily be structural, international, and multi-sectoral.

For an "organized system of themes" stemming from one or more "megatrends" to qualify as an "investment theme," three essential criteria must be met beforehand. A theme must imperatively be all three: structural, international, and multi-sectoral. These three conditions must be met together for a theme to serve as a basis for investment decisions.

As demonstrated by Golden Rule #1, a theme is not a sector. It encompasses companies across multiple sectors, whose revenue is generated from the same origin or cause. A theme is, therefore, inherently multi-sectoral, or in other words, cross-cutting. Let's revisit the example of the silver Economy theme. This theme addresses the needs of both individuals in the category of the third age, also known as young seniors (between 60 and 75 years old), and those in the fourth age (75 years old and above). These categories of individuals obviously have different needs.

The first group consists of individuals who are starting to enjoy their retirement, generally possessing a higher-than-average wealth compared to the population⁵ and spending significantly in sectors like tourism and leisure, engaging in activities such as gardening, DIY, and more.

⁴ Journal Investir, *Ces mégatendances qui transforment l'investissement thématique* www.investir.ch

⁵ Federal Reserve, *Survey of Consumer Finances (SCF)*



Individuals in the third age already have a certain level of healthcare expenses, usually starting with items like hearing or vision aids, but they might not require the same medical or pharmaceutical services as those in the fourth age. The latter traditionally have significantly higher healthcare expenditures: their treatments are more intensive, they may need home care assistance or reside in nursing homes. Some seniors also utilize insurance products, especially when they find themselves in situations of dependence. Due to this diversity, the Silver Economy theme primarily includes companies from four sectors: healthcare, tourism, leisure, and insurance. This is a perfect example of the cross-cutting nature a theme should have.

We also mentioned in Golden Rule #2 and Golden Rule #5 that themes should not be limited to a specific region. In fact, to be a structuring element of the world of tomorrow, they must have international scope. Of course, it's possible to find a higher concentration of companies in certain countries, but the fundamental change upon which the theme is based should have a global dimension. Take the example of the Cybersecurity theme: the major players in this theme are in the United States, yet the cybersecurity market is truly international. It has gained even more prominence since the global Covid-19 pandemic, with the widespread adoption of remote work and the implementation of numerous secure clouds by companies all around the world. The same applies to the Gaming & Metaverse theme, with many companies located in Korea and Japan, while the Metaverse market itself is genuinely global.

The international nature of a theme reinforces its economic prospects by enabling it to reach the widest range of individuals.

Lastly, as mentioned in Golden Rule #5, a theme is structural in the sense that it is built on global structural shifts. A thematic investor should not question the validity of the economic model of the selected theme or its fundamentals for at least the next 20 years. Taking the example of the Smart Cities theme, according to United Nations projections, the ongoing rural exodus will accelerate in the coming years, such that by 2050, 68% of the global population will live in cities, up from the current 55%⁶. This theme is built on the premise that technology, when used for the benefit of citizens, will enhance the efficiency of economic exchanges, mobility, and the well-being of urban dwellers, contributing to sustainable development goals. To accommodate increasing newcomers, cities must modernize and invest in technologies that enhance their organization. Given this observation and considering the increasing number of cities adopting these technologies in recent years, investors can be confident in the expanding Smart Cities market over the next decades.

The same applies to the Silver Economy theme, which has been mentioned multiple times in this White Paper and serves as a good example of a structural theme. The increasing life expectancy and declining birth rates due to economic development mean that the natural population growth is such that, according to United Nations studies, global population aging will inevitably continue in the coming decades. The World Health Organization indicates that the number of seniors on Earth is expected to reach 2.1 billion in 2050, up from 1 billion today⁷. The clientele for Silver Economy companies is thus projected to grow continuously and automatically until that date, relieving investors from questioning the economic fundamentals of this theme for the upcoming years.

“ The investor should not question the validity of the **Thematic** for at least 20 years.

⁶ United Nations : <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

⁷ World Health Organization: <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>



Golden Rule #7: Do not make a thematic allocation without specific metrics.

Like cooking, thematic investing requires a balanced blend of diverse and complementary ingredients. To find the right recipe, a thematic manager must create their own metrics. Metrics refer to the set of indicators that enable understanding, studying, quantifying, and measuring a theme. These metrics allow for analysing and comparing themes based on both qualitative and fundamental criteria. Thematic investing thus becomes a financial investment like any other, with its own rules and metrics, necessitating a stock-picking or fund-picking methodology but adding an initial analysis of indicators to select the theme with promising economic prospects and stock potential. It's almost as if, before proceeding with analysing individual securities or funds, the manager engages in a "thematic picking" step.

To effectively select a theme, the manager must first assess its intrinsic value based on qualitative metrics. Firstly, analysing the fundamentals of a theme (definition, sector listings, study of promising innovations, analysis of economic, political, social, and demographic environment) allows the investor to quickly gauge the quality and coherence of a theme.

In the next step, it becomes essential to identify the strengths and weaknesses of a theme over a horizon of 5 to 30 years. The goal is to construct a relevant framework, composed of the opportunities and threats impacting a theme.

Consider the example of a trending theme: the Water Cycle. Of course, studying the fundamentals helps understand the increasing pressure on drinking water reserves due to population growth. The potential for

economic growth seems significant. However, studying the weaknesses warns us of the risk of geopolitical conflicts or uprisings that may arise from the pursuit of this "blue gold."

A theme, like a company, is never flawless; it is the duty of the manager to scrutinize their investment case to better understand the theme they wish to select.

As a necessary complement to qualitative analysis, the quantitative fundamental analysis of a theme primarily aims to determine its financial market valuation. The manager will need to develop genuine thematic indicators with the objective of accurately determining the valuation of theme-associated companies. Moreover, an analysis of performance, volatility, risk-return ratios, maximum drawdown, revenue growth, and earnings per share is essential across a representative sample of the theme. This provides insight into the historical stock performance of the theme and its current status.

Lastly, the manager can choose to perform an extra-financial analysis of the representative sample to establish an ESG rating for the theme as a whole.

Using these complementary metrics enables the investor to refine their analysis and assign a value to a theme before investing. It is no different from what they would do with any financial market before selecting a company from it. Pricing a theme requires thorough and exhaustive work, for which the manager will need a model. It's recommended not to invest in themes without such metrics.

At Galilee Asset Management, these analyses and the resulting metrics are carried out using the proprietary tool "Codex of Themes" developed by the management team.



Conclusion

Thematic investing aims at seizing opportunities created by the major trends shaping the world of tomorrow, which will disrupt the global economy in the coming decades. Themes can be derived from megatrends that may be demographic, technological, environmental, social, or political in nature. However, in order to merit the label of an "investment theme," a theme must be both structural, international, and multi-sector: this is the essential condition that determines whether the companies within it can be considered investable assets for a thematic portfolio manager. After confirming this crucial point, the manager must focus on the economic prospects of the theme, while also remaining vigilant about its financial market potential. These two criteria are interconnected in the long run but can be temporarily decoupled. To determine the economic prospects and stock potential of a theme, specific metrics tailored to thematic investing, often within a dedicated model, need to be used.

Among the myriad of thematic funds that exist today, and with their increasing proliferation, the purpose of this White Paper is to emphasize the rules that should always be kept in mind by investors when selecting and combining themes in their portfolios. This practical guide also aims to help readers avoid falling into the trap of "Thematic Washing," which, similar to Greenwashing, involves certain asset management firms using the allure of thematic investing for marketing purposes to attract more investors to their funds. The 7 golden rules of thematic investing are here to steer clear of such investment pitfalls and to make the most of the numerous opportunities that the remarkable growth of thematic investing presents today.

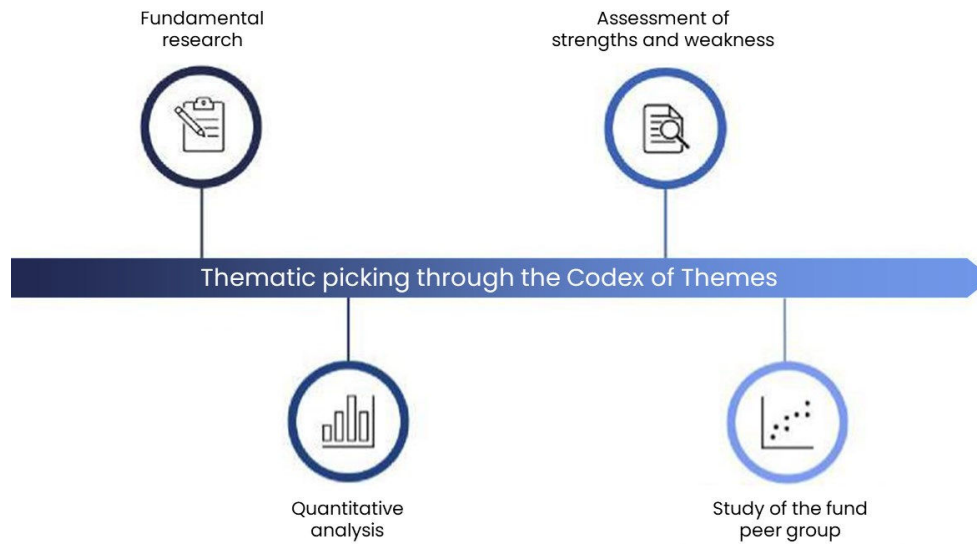




Summary of the Golden Rules

1. Do not confuse thematic investment with sectorial investment.
2. Do not confuse a theme with a market segment.
3. Do not confuse economic prospects with the financial market potential of a theme.
4. Do not believe that ESG is a theme.
5. A theme must necessarily stem from one or more megatrends.
6. A theme must necessarily be structural, international, and multi-sector.
7. Do not make a thematic allocation without specific metrics.

The analysis process of the "Codex of Themes"



The 5 thematic pillars of the "Codex of Themes".

The themes targeted by our "Codex of Themes" are grouped around 5 pillars:

Digital & Robotic Revolution	Demographic Changes	Energetic Transition	Emergence of Middle Classes	New Modes of Consumption
<ul style="list-style-type: none"> • Robotic & IA • Cloud & IoT • Cybersecurity • Future of Finance • Space Exploration 	<ul style="list-style-type: none"> • Silver Economy • Food challenge • Energy needs • Infrastructures • Smart Cities 	<ul style="list-style-type: none"> • Clean Energies • Future Mobility • Water Cycle • Wood Industry • Recycling and waste 	<ul style="list-style-type: none"> • Health & Wellness • Education • Sports Economy • Tourism & Leisure • Luxury and Lifestyle 	<ul style="list-style-type: none"> • Digital Economy • Future of Medicine • Safety & Testing • Animal Wellbeing • Gaming & Metaverse



Revenue:

Revenue represents the amount of business (excluding taxes) generated by a statistical unit (company, legal entity) with third parties during its normal and usual professional activity.

Megatrend:

Megatrends are the structural forces of change. They have a significant social, economic, and political impact

ESG Criteria:

ESG criteria (Environmental, Social, and Governance) allow for the assessment of the degree to which sustainability and long-term issues are considered in the strategy of economic actors (companies, communities) vis-à-vis all stakeholders (shareholders, employees, suppliers, environment, etc).

Re-rating:

A term referring to the phenomenon of a stock of a listed company or a sector being revalued on the stock market. A change in status due to, for example, stronger economic fundamentals can lead financial markets to value a company or a sector more generously than in the past.

Valuation Ratio:

A metric used to determine the "expensiveness" of a financial asset in relation to its market price and economic fundamentals.

Earnings per Share:

Earnings per share (EPS) measures profitability to show what portion of a company's profit is attributed to each of its ordinary shares. Companies often state EPS goals to establish shareholder expectations for earnings.

Seniors:

The World Health Organization (WHO) statistically defines individuals over 60 as seniors.

Market Timing:

Market timing refers to the study of a market or financial asset to identify specific and optimal intervention levels for making buy or sell decisions.

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For complete information on the strategic orientations of the financial products managed by our management company, the associated risks, and the related management fees, we invite you to review the documents available on our website or at the headquarters of our company. The past performances and volatilities of the funds that may be mentioned in this document do not predict their future performances and volatilities and are not constant over time. The drafting of this document was completed on June 8, 2022. Any subsequent events may not be considered in this White Paper.



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