Scientific Portfolio Market Review

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Scientific Portfolio
An EDHEC Venture

It's Never Been More Important (and Easier) to Review Sector Exposures

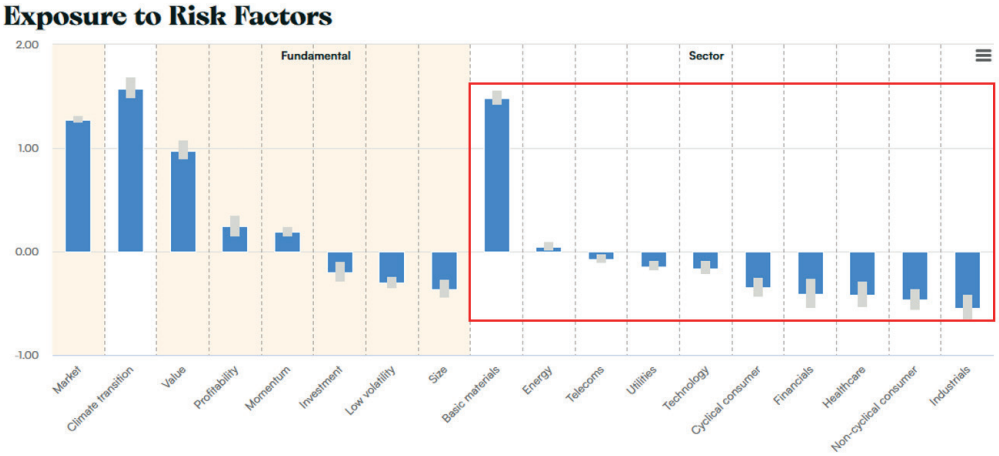
Following "Liberation Day", equity investors are carefully assessing the impact of the newly announced set of tariffs applied to all imports to the US. While it appears clear that US consumers will overall be hit by price increases, the exact effects on each business sector will depend on the structure and location of the supply chain of each industry. For example, Consumer Discretionary is expected to be significantly impacted since Southeast Asia (where new tariffs are between 35-55%) is a major production hub for companies operating in that sector. The Technology sector is also overall expected to suffer given its complex global supply chain (this even includes e-commerce platforms where the majority of the products originate from outside the US). Some other sectors, like Healthcare, remain somewhat protected since the pharmaceutical industry is currently exempt from the new "reciprocal tariffs" (although this may change when "sectoral tariffs" are implemented).

In this context, equity investors need the tools to quickly detect and measure their sector risk exposures. This could be a challenge when dealing with a complex institutional portfolio: aggregating multiple types of instruments (customized mandates, mutual funds, ETFs) managed by multiple investment managers can quickly become time-consuming and require superior data management skills. The difficulty is primarily related to the collection of (ideally synchronous) stock holdings data. One could therefore try to aggregate sector-level allocations instead, but then a data classification problem may arise, with a potentially different set of sector and industry definitions used by each investment manager. To address this issue, the Scientific Portfolio platform offers a risk-based measure of sector exposures that entirely relies on historical returns, and the purpose of this Market Review is to show the benefits of this more efficient approach. In particular, our risk-based exposures facilitate the review of over 3,000 mutual funds and ETFs across three investment zones (United States, Developed Europe and Emerging Markets). We observe a significant level of dispersion with respect to several sector risk exposures, meaning that long-only equity investors are offered a lot of flexibility to fine-tune their sector risk profile.

Risk-Based Sector Exposures

Using only time-series data, we generate a set of exposures (or betas) with respect to ten (market neutral) risk factors which are linked to sectors: Basic Materials, Energy, Telecoms, Utilities, Technology, Cyclical Consumer, Financials, Healthcare, Non-Cyclical Consumer, Industrials. For a given portfolio, the sector risk exposures can be found in our Factor Profile below (Exhibit 1) alongside the fundamental equity factor exposures (including the Market factor), collectively representing a risk identification card of the portfolio.

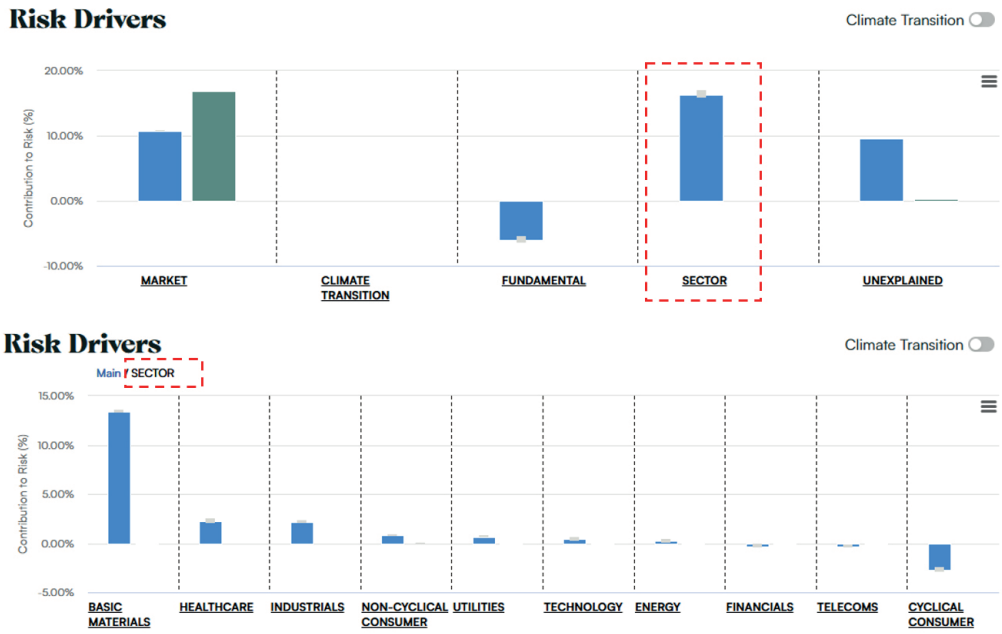
Exhibit 1: Historical risk identification card of an equity strategy (Factor Profile)



Source: Scientific Portfolio platform

Viewing sector allocation through a risk-based lens offers distinct advantages compared to a holdings-based allocation perspective. First, computing exposures for institutional portfolios becomes a lot simpler and faster since the calculations only depend on historical returns. Second, it facilitates the integration[1] of sector-related risks into the overall risk profile of the portfolio: Exhibit 2 below shows the full risk decomposition that results from the exposures displayed in Exhibit 1.

Exhibit 2: Historical risk decomposition



Source: Scientific Portfolio platform

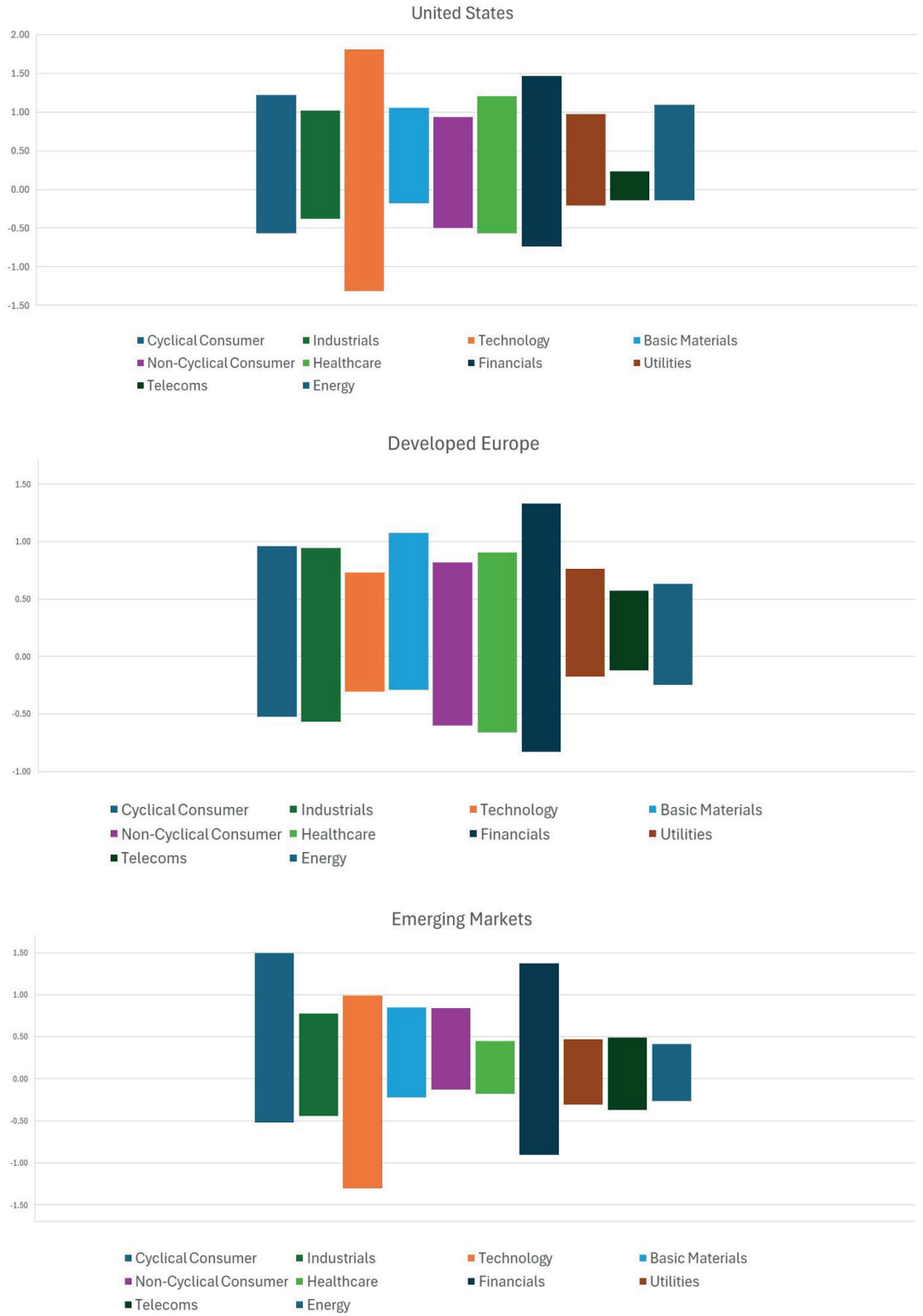
A Lot of Flexibility Offered by the Market to Long-Only Equity Investors

We compute sector risk exposures (in accordance with the above methodology) for a population of 3,147 equity instruments (either mutual funds or ETFs, with an approximate split of 44% and 56% respectively) that follow a long-only strategy in one of the three following investment zones: United States, Developed Europe, and Emerging Markets. Approximately 60% of the instruments belong to the US zone, with the remaining 40% split between Developed Europe and Emerging Markets.

For each zone, and for each of the sectors, we identify the ten instruments with the highest exposure and the ten instruments with the lowest (possibly negative) exposure. The average risk-based exposure observed among the top 10 and bottom 10 instruments in each zone and for each sector is represented in Exhibit 3 below.

1 - See the Scientific Portfolio Risk Model for more details

Exhibit 3: Top 10 and bottom 10 average sector (risk-based) exposures



Source: Scientific Portfolio

We make two observations. First, there is a very rich range of sector exposures offered across equity mutual funds and ETFs in all three zones, with the bottom 10 instruments often exhibiting a negative risk exposure despite the long-only nature of the strategies reviewed. This implies that a detailed examination of sector risk in a long-only portfolio is indeed worthwhile, and that the equity market offers investors the opportunity to actively manage and control sector risk exposures. Second, some sectors offer significantly more flexibility than others: Exhibit 3 indeed indicates that it is relatively easy to control the Technology exposure in a US equity portfolio, but less so in a European portfolio.

Conclusion: Choose your Instrument or your Exposure and Monitor Performance

Investors looking to choose between several instruments depending on their vulnerability to the White House's new trade policy may easily construct their own screening methodology by combining several sector risk exposures provided by the Scientific Portfolio platform. As an illustration, we note that Technology, Cyclical Consumer, Industrials and Basic Materials have been generally identified as heavily exposed to the new US tariffs. We therefore define a simple "tariff beta" as the straight sum of the four corresponding sector risk exposures and rank instruments in accordance with this newly designed metric. Exhibit 4 below presents the 10 US instruments with the highest "tariff beta".

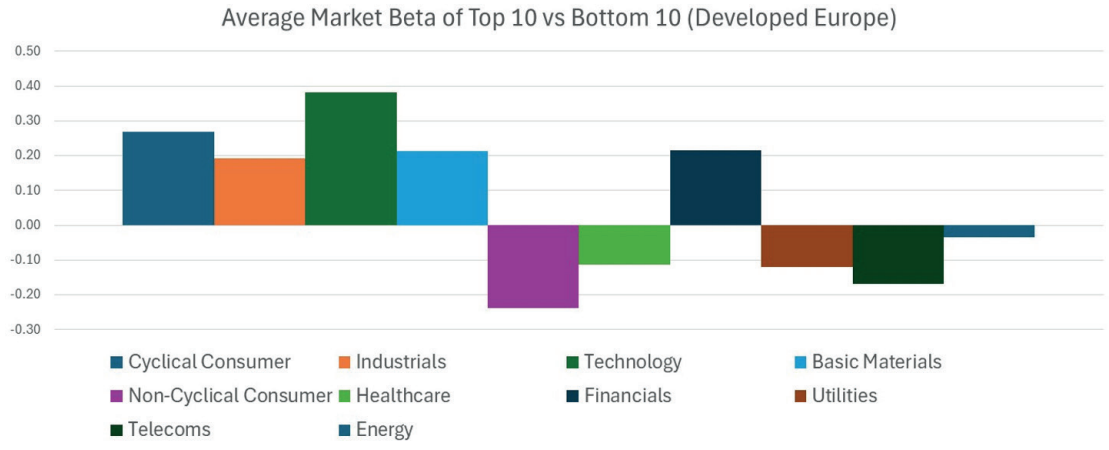
Exhibit 4: US equity instruments carrying the largest "tariff beta"

Instrument Name
iShares U.S. Home Construction ETF
SPDR FactSet Innovative Technology ETF
ALPS Clean Energy ETF
ProShares S&P Kensho Cleantech ETF
Renaissance IPO ETF
Brown Capital Management Small Company Fund
Nationwide Small Company Growth Fund
CIBC Clean Energy Index ETF
SPDR S&P Homebuilders ETF
TrueShares Technology, AI and Deep Learning ETF

Source: Scientific Portfolio; "tariff beta" is computed as the sum of the sector exposures to Technology, Cyclical Consumer, Industrials, and Basic Materials.

Additionally, investors wanting to implement changes to their portfolio's sector risk exposures will want to detect and anticipate the indirect consequences of a sector-driven reallocation. For example, we note that instruments sitting at the opposite ends of the spectrum with respect to a given sector risk exposure generally tend to also have a different Market beta. Exhibit 5 below reports the spread in Market beta observed between the top 10 and the bottom 10 instruments in the Developed Europe zone.

Exhibit 5: Market beta spread between top 10 and bottom 10 instruments in Developed Europe



Source: Scientific Portfolio; for each sector, the height of the colored bar represents the average sector (risk-based) exposure of the top 10 instruments minus the average sector (risk-based) exposure of the bottom 10 instruments.

Finally, investors adopting the risk-based approach presented here will also be able to closely monitor the outcomes of the allocation choices they made and use the Scientific Portfolio platform to carry out a sector-oriented performance attribution analysis (either for a fund or for a personal equity portfolio uploaded onto the platform).

We will address this topic more specifically in one of our forthcoming Market Reviews.

Access the Scientific Portfolio Platform

About Scientific Portfolio

Scientific Portfolio is the latest commercial venture incubated within the research ecosystem of EDHEC Business School (EDHEC), one of the world's leading business schools.

Scientific Portfolio has assembled a team with a broad range of expertise and backgrounds, including financial engineering, computer science, sustainable and climate finance, and institutional portfolio and risk management. It proudly carries EDHEC's impactful academic heritage and aspires to provide investors with the technology they need to independently analyse and construct equity portfolios from both a financial and extra-financial perspective.

To achieve this, it offers investors three sources of value through its portfolio analysis & construction platform:

- Helping investors to analyse their equity portfolios, identify actionable insights and enhance portfolios with allocation functionalities. Indeed, Scientific Portfolio likes to promote portfolio analysis as a means to the concrete goal of building portfolios that are both more efficient and better aligned with their investment objectives.
- Providing investors with an integrated framework where financial and extra-financial (ESG) considerations are jointly captured in analysis and portfolio construction. The ability to incorporate ESG-related insights in the portfolio allocation process is now a common requirement among many investors.
- Giving investors access to a Knowledge Centre catering to all types of learners and providing guidance through the portfolio analysis and construction process. This aligns with Scientific Portfolio's commitment to remaining connected with its academic roots and bridging the gap between investors and academia.

https://scientificportfolio.com/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