PANTHERA SOLUTIONS

PRINCIPLES OF NET-ZERO PORTFOLIO MANAGEMENT

MONACO / OCTOBER 2021
WRITTEN BY Dr. MARKUS SCHULLER
PANTHERA SOLUTIONS

Sustainable Development Goals (SDG)-related investing has moved from a "nice to have" to the "must-have" next wave of good management for investment managers and business leaders alike. The road to necessity has taken decades to build (Townsend, 2020). Starting with civil society activities about 50 years ago (Greenpeace founded in 1971, WWF founded in 1961, Club of Rome published "Limits to Growth" in 1972), which turned into more institutionalized forms of national parties and policy agendas of supranational organizations, lobbying for awareness, while increasingly demanding actions. It took until the 2000s when the investment management industry took notice in an institutionalized way.

FROM FIG LEAF TO KEY ISSUE IN INVESTMENT MANAGEMENT

In 2005, the world's largest institutional investors, supported by a group of industry and civil society experts, joined a process spearheaded by the then-UN Secretary-General Kofi Annan to develop the Principles for Responsible Investment (PRI).

Despite the early start, ESG-compliant investing remained a marketing-glossy fig leaf until 2015, when the Sustainable Development Goals (SDG), a set of international commitments to end poverty and build a better world by 2030, were adopted by the United Nations General Assembly (UN, 2015). At the same time, the UN Climate Change Conference Paris 2015 (UN, 2105) was aiming to achieve a legally binding and universal agreement on climate action worldwide.

Since then, the issues of sustainable investing have steadily been making their way onto the agenda of institutional investors, financial policymakers, and supervisors. For the first time, finance specialists seriously began a trial-and-error loop on how to make sense when measuring desired and undesired impact. Only recently, regulatory initiatives have turned into normative guidance, as seen in the EU taxonomy for sustainable activities (EC, 2020) or the SFDR regulation on reporting standards (EC, 2019).

INTELLECTUAL ASSUMPTIONS, POLICY-MAKING & OPPORTUNITIES

This "must-have"-moment that our industry has arrived at, is embedded in a change of intellectual assumptions of Western policymakers. More than 30 years ago, the phrase "Washington Consensus" was coined to describe a collection of free-market, pro-globalization ideas that G7 leaders (among others) were promoting around the world ever since. As part of a fundamental understanding of what SDGs mean for policymaking, the G7 leaders have coined a new phrase this summer, referred to as "Cornwall Consensus" (G7, 2021). They now accept that globalization creates vulnerabilities as well as efficiencies. History shows that when intellectual assumptions change, they do so in slow, elliptical pendulum swings that can last a long time. The momentum of these swings creates opportunities and risks alike through the uncertain outcomes for our economies as well as for our societies.

INDUSTRY MANDATE > VALUE CREATION THROUGH CAPITAL REDEPLOYMENT

Policymakers and regulators can only initiate, facilitate and incentivize the direction of this momentum towards making SDGs achievable. The actual redeployment of capital has to be done by market participants themselves by creating value for stakeholders through a rational assessment of the opportunity set. Due to this decision-making under uncertainty, SDG-related investing will fail if it is understood as another box-ticking exercise, that boards, investment committees, or portfolio managers have gotten used to since the global financial crisis.

Professional investors will not be able to delegate their responsibility in understanding what they are doing to rating agencies, scoring models, ESG databases, or consultants. Simply put, being SDG-compliant offers an opportunity for investment decision-makers to strengthen their comparative advantage through innovative specialization. However, if they are not stepping up to the task, it will be their pathway to extinction. One might consider scenarios of carbon reporting throughout the entire supply chain or a carbon emission price of 100, at which carbon intense products or services will be at best detrimental to earnings and fatal at worst. SDG's are a way to visualize impact for 17 of the most urgent systemic issues the world is facing. SDG-related investing is our industry's contribution to addressing these systemic issues.

IMPLEMENTATION AS URGING NECESSITY

Meeting SDGs by 2030 has become imperative. The evidence is clear. The scientific community is coordinating its multi-disciplinary research in the form of the IPCC report, the gold standard for understanding the drivers and implications of climate change. For the first time, the Sixth Assessment Report (IPCC, 2021 / final version until mid-2022) released this summer provides a more detailed regional evaluation of climate change, including a focus on useful information that can inform risk assessment, adaptation, and other relevant socio-economic aspects in climate-related decision-making. The report provides new estimates on the chances of crossing the global warming level of 1.5°C in the coming decades, finding that unless there are immediate, rapid, and large-scale reductions in greenhouse gas emissions, limiting warming close to 1.5°C or even 2°C will be beyond reach.

Redeploying capital towards positively impacting SDGs has been set as our industry's societal mandate. This industry mandate is being increasingly accepted. Capital markets are the golden key for successful SDG implementation. Policymakers, industry alliances, and regulators have formed new initiatives and platforms at a fast pace.

IMPLEMENTATION THROUGH COOPERATION

"Race to Zero" (R2Z) is the world's largest net-zero alliance, with over 3,800 members, representing over 50% of the global economy and 120 countries. More than 2300 businesses, 733 cities, 173 investors, 622 educational institutions, and 31 regions are united in this alliance in their commitment to halving emissions by 2030 and achieving net-zero emissions as soon as possible – and by 2050 at the very latest as part of the Race to Zero. This alliance brings together net-zero commitments from a range of leading networks and initiatives, including the Business Ambition for 1.5 C campaign for corporations, the Net-Zero Asset Managers Initiative (128 signatories / $43 trillion in AuM), the UN-convened Net-Zero Asset Owner Alliance, and the UN-convened Net Zero Baking Alliance for financial firms, the One Planet Sovereign Wealth Funds Initiative (OPSWF), the Under2Coalition for states and regions and Global Universities and Colleges for the Climate and many more.

In addition, we have the investment community increasingly joining the UN "Principles for Responsible Investing"- initiative (PRI) to share best implementation practices, with the central banks and supervisors doing the same as part of the "Network of Central Banks and Supervisors for Greening the Financial System" (NGFS), supporting mainstream finance in its transition toward a sustainable economy. UN High-Level Climate Champions and Mark Carney have launched the Glasgow Financial Alliance for Net Zero (GFANZ). This already unites over 160 firms, together responsible for assets in excess of US$70 trillion, from the leading net zero initiatives across the financial system to accelerate the transition to net-zero emissions by 2050 at the latest.

Starting on October 31st, the COP26 summit in Glasgow will bring parties together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change. The targets announced in Paris (UN, 2015) would result in warming well above 3 degrees by 2100 compared to pre-industrial levels. If we continue as we are, temperatures will carry on rising, bringing even more catastrophic flooding, bush fires, extreme weather, and destruction of species.

Still, until today we can see progress in awareness, coordination, taxonomies, and commitments.

- The OECD estimates that $78.9bn of climate finance was mobilized in 2018 (OECD, 2020). Multilateral development banks estimated that $41.5 billion was provided to developing countries in 2019 (EIB, 2020).
- The Glasgow Financial Alliance for Net Zero represents over $70 trillion of assets committed to net-zero by 2050 (UNCC, 2021).
- Over 2000 organizations around the world support the Taskforce for Climate-Related Financial Disclosures (TCFD).
- 17 central banks have committed to stress testing their financial system against climate risks.
- TCFD published its financial disclosure recommendations for governance, strategy, risk management, and metrics (TCFD, 2017)

In short, there is no lack of coordination platforms. There is no lack of taxonomies, policy concepts, or good intentions by now. This level of awareness is an achievement by itself, but an insufficient one.

TURNING EVANGELISTS INTO PLUMBERS

A main focus regarding the COP26 negotiations is about finalizing the rules needed to implement the Paris Agreement, called the 'Paris Rulebook' (COP26, 2021). Participants will work on solutions so that carbon markets can enable greater ambition in mitigation and adaptation actions. Essential to this work is resolving the issues around transparent reporting to build confidence in the system and support all countries to meet their commitments. However, finalizing the Paris Rulebook on its own will not deliver net-zero (COP26a, 2021). Still, too many evangelists are intending to raise awareness in an industry that has become aware. What the industry needs are plumbers.

This decade is decisive whether we can turn ambition into action.

STATUS QUO IN NET-ZERO PORTFOLIO MANAGEMENT

Has the industry already developed the best practices needed to transform investment portfolios towards net-zero allocations at scale? Not yet. The practitioner-created content in the domain of SDG-related investing is of significant quantity and pace. White papers, case studies, and conclusions of practitioner discussions are being produced by asset managers and owners of all sizes (SavvyInvestor, 2021). This idiosyncratic approach can lead to a point at which patterns of best practice occur. The pace might be slow as the trial-error loop is being diluted in its wisdom generation by commercial interest.
There is an alternative. The interplay between practitioners producing validating or falsifying evidence that is reflected in a normative or descriptive way through academic research has proven to create a steeper learning curve for pattern recognition and validation in the past.

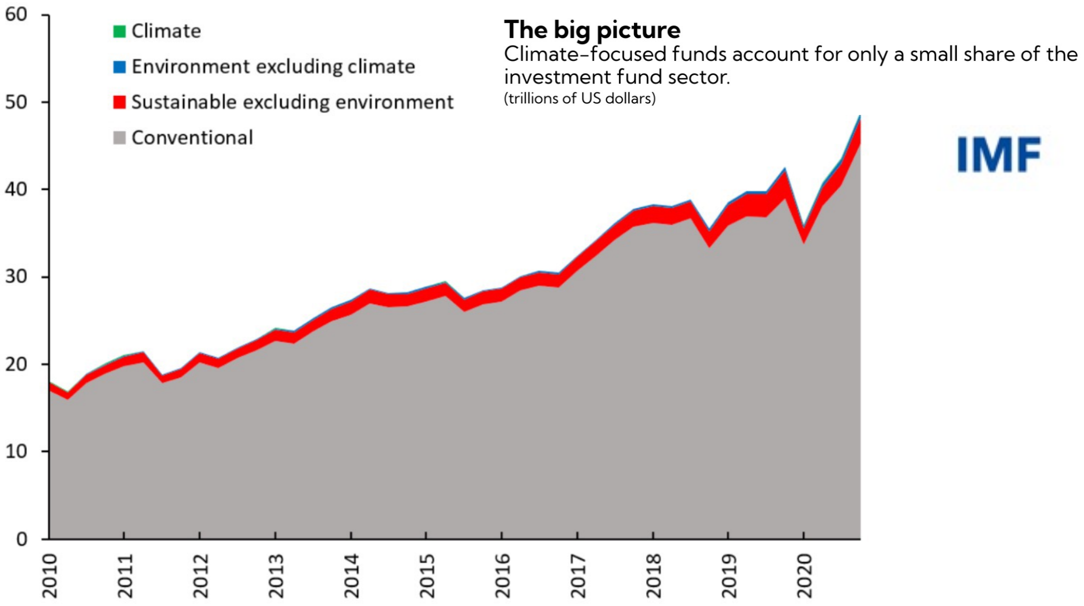
Academic research in the domain of SDG-related investing is only at the beginning. The number of papers published in peer-reviewed journals only increased momentously since 2019. From an academic perspective that is a short period of time. Indicative for the early stage of academic contribution is the number and quality of journals dedicated to the topic. Until about ten years ago the research questions related to ESG/SDG/Sustainability were included in the well-established ones with a broader scope. Dedicated ones are young and not highly ranked. The Journal of Sustainable Finance & Investment (H-Index 16) exists since 2011, the Journal of Sustainable Economy (H-Index 5) since 2017, and the Journal of Impact & ESG Investing released its first issue in 2020 (No H-Index).

The academic awakening since the global financial crisis (GFC) has been categorized by Lloyd Kurtz as the "Modern Era" of SRI/ESG publications, who is one of the academic icebreakers of SRI performance studies (Kurtz, 2013). Since the GFC, we have seen dozens of papers covering a wide range of topics from fixed income by Bauer and Hahn (2010) to the impact of shareholder engagement on the market by Dimson et al. (2012). This momentum is positive at first.

Caveat - the portfolio management techniques used in these studies can be labeled as traditional. We see more-of-the-same factor-based portfolio construction techniques (Lioui, 2019) or prolonged assumptions of the Optimal Risky Portfolios (Blackrock, 2020) as a valid starting point in strategic asset allocation.
It should not surprise that an industry known for its slow adaptability (Schuller, 2017; Schuller 2018) pursues well-introduced patterns in its portfolio construction methods, academics, and practitioners alike. The high market concentration of ESG data vendors and their converging approaches of how to measure impact (DVFA, 2020) is in line with the well-established industry culture of slow adaptability. This culture enables greenwashing to still be a widely applied practice (ESG Clarity, 2021; Amenc et al, 2021), of which the BIS is warning to become at least a structural concern (BIS, 2021). The recent DWS greenwashing probe (Bloomberg, 2021) might indicate increased sensitivity of asset allocators on that unethical behavior.

How early stage the exploration of best practices in net-zero portfolio management still is, can be inferred from the minimal impact on capital re-deployed. As part of its Global Financial Stability Report, the IMF released its assessment of how widespread sustainable investment funds already are (IMF, 2021). Their research concluded that these funds still represent only a small fraction of the investment fund universe. At the end of 2020, funds with a sustainability label totaled about $3.6 trillion (or $2trn acc to BIS), representing only 7% of the overall investment fund sector worldwide. Funds with a specific climate focus accounted for a meager $130 billion of that total. The different AuM between IMF and BIS indicate further work required on how to label the fund management industry. The lack of standardization and the ensuing classification issues make it difficult to pin down precise amounts (Berg, 2020).

The same pattern can be found in the bond market (BIS, 2021). Current holdings of bonds with proceeds earmarked for environmental or social projects (ie bonds labeled as green, social, or sustainable according to ICMA criteria) amount to only about 1% of total bond portfolios for both US insurance companies and European banks (ECB, 2020).



Sources: Bloomberg Finance L.P.; Lipper; Morningstar; and IMF staff calculations.

A PARADOXICAL STATUS-QUO

In their recent Quarterly Review (BIS, 2021), the BIS highlights a paradox. At a point in time where it is decisive, whether we can turn ambition into action, the investment management industry still pursues to take shortcuts by continuing its slow adaptation culture through the application of well introduced, while outdated market assessment and portfolio construction techniques. As the increased money inflow is allocated through these standardized approaches, certain ESG-related assets are considered overvalued by now or as the BIS phrased it: *"There are signs that ESG assets' valuations may be stretched."*

With the academic domain expertise still being in an explorative phase and the practitioner's contribution only recently changing focus from addressing the "what/why" to the "how" question, any best practices in net-zero portfolio management should be taken as strictly temporary snapshots with a potentially short half-life.

PRINCIPLES IN NET ZERO PORTFOLIO MANAGEMENT

While best practices are still being explored, a review of the available academic literature allows drawing an initial set of principles for net-zero portfolio management.

1. FOCUS ON SDG

Ignore labels, focus on substance. One may have come across SDG-related investing as ESG investing, responsible investing, impact investing, sustainable investing, green finance, or several other labels. The key goal behind net-zero portfolio management is simple, no matter how one names it: investors shall seek to have the real-world impact of reducing greenhouse gas (GHG) emissions through their investments in a socially and economically empowering way.

2. FOCUS ON VALUE CREATION

Causing real-economic impact is in line with the profit motive in professional investment management. Investors will now need to meet their investment objectives through achieving the intended impact on their chosen opportunity set. Our world today requires mastering multiple crises of global significance in parallel. Implicitly, opportunity sets are exposed to multiple transformative drivers, turning investment management into a continuous exercise of decision-making under uncertainty (Gigerenzer, 2011; 2014). This is a chance for investment professionals and their clients as these unstructured circumstances offer significant opportunities if the challenge is accepted to focus on value creation.

Since the GFC, investment management has become a regulatory-driven, box-ticking exercise to follow a formal process, that ranks compliance higher than value creation. This is not how net-zero targets can be met. Under current circumstances, value creation will reward those that win the race of innovative specialization. Warren Buffett would call the focus on value creation nothing else than entrepreneurial investing. It is sometimes called active ownership or activist investing in the literature. They all refer to the same growth mindset required: embracing change (Dweck, 2007; 2021).

3. FOCUS ON CAUSAL IMPACT

Any form of impact on SDGs requires a causal approach to measuring intended versus delivered impact. This sounds trivial. Causality is a feature of life, as it is for capital markets. Portfolio construction methods ignored this trivia over the last 70 years by taking correlation as a valid indicator for causation (Mandelbrot, 2006). Net Zero Portfolio Management requires thinking in terms of path-dependent impact.
Investment professionals are about to learn that. They cannot fully understand the impact of their decisions by relying on a correlation-based mindset (Taleb, 2014). Those that resist this change can count on a nudge from regulators, as seen through the standards-setting for narrative reporting as part of the recent Mifid 2 and Solvency 2 Reviews. Resistance can be expected, as generations of industry specialists were socialized in a correlation-based mindset.

4. FOCUS ON INVESTMENT PROCESS ADAPTABILITY

The integration of portfolio construction, risk management, and net zero-alignment methods into an investment process can be assumed as an ongoing task for all parties involved. As markets are adaptive (Lo, 2004), investment processes and investment decision-makers need to adapt to a change in patterns of the opportunity set. With current markets being exposed to multiple transformative drivers, rapid pattern changes can be assumed. At any time, investment decisions require to maximize the most evidence-based risk-reward asymmetry at the decision point.

Best practices to achieve this asymmetry suggest a decision design made for decision-making under uncertainty (Gigerenzer, 2015). Such an investment decision support system allows for precise interventions on who needs to adapt when to what. Any imprecision when talking about change contributes to the glorification of change (Schuller, 2018), a phenomenon in our industry is to talk about change rather than walking the walk – see greenwashing.

5. FOCUS ON INVESTMENT PROFESSIONALS' ADAPTABILITY

For investment professionals to adapt their behavior when the net-zero opportunity set changes, requires to be capable and willing to do so (Roth, 2007). Best practices suggest aligning these three elements to meet the requirements: a) intrinsic motivation b) continuous upskilling of relevant abilities and c) a work environment that facilitates psychological safety (Milkman, 2021; Shefrin, 1999; Thaler/Sunstein, 2008).

Our industry is full of passive learning formats that might raise awareness but have a marginal impact on upskilling. Investment professionals receive their continuous education credits with these low-hanging fruits from well-established certification bodies. We need to steepen the learning curve in our industry. New formats are necessary that create an active learning environment to align the elements a-c.

CONCLUSION

Our industry has been mandated by society to redeploy capital towards making SDGs achievable, by reducing greenhouse gas emissions (net zero) in a socially and economically empowering way. This mandate meets industry usances of slow adaptability, defensive decision-making, and low-risk literacy. Other industries show the way in what it takes: innovative specialization of the individual to exploit an opportunity set under uncertainty and level a playing field it can then compete on. This form of specialization requires a market participant to competitively integrate human and artificial intelligence in an ethical and sustainable way.

For our industry, this means nothing less than reinventing itself. A shift in the mindset from compliance to value creation. This will impact investment strategies, business models, and portfolio construction techniques alike. There is a lot of work ahead.

It is worth the effort.

BIBLIOGRAPHY

- Amenc, N., Goltz, F., Liu, V. (2021). Doing Good or Feeling Good? Detecting Greenwashing in Climate Investing. EDHEC Risk Institute
- Bauer, R., and D. Hann. (2010). "Corporate Environmental Management and Credit Risk." SSRN Electronic Journal, December 23, 2010. https://doi.org/10.2139/ssrn.1660470.
- Belloni, M., Giuzio, M., Kördel, S., Radulova, P., Salakhova, D., Wicknig, F., (2020). "The performance and resilience of green finance instruments: ESG funds and green bonds." ECB Financial Stability Review,
- Berg, F., Kölbel, J., Rigobon, R. (2020). "Aggregate Confusion: The Divergence of ESG Ratings." Available at SSRN: https://ssrn.com/abstract=3438533 or http://dx.doi.org/10.2139/ssrn.3438533
- BIS (2021). Sustainable finance: trends, valuations and exposures. BIS Quarterly Review. Retrieved from: https://www.bis.org/publ/qtrpdf/r_qt2109v.htm
- Blackrock (2020) Achieving a strategic asset allocation and generating long-term growth in a sustainable way. Case Study for PRI. Retrieved from: https://www.unpri.org/asset-owner-resources/achieving-a-strategic-asset-allocation-and-generating-long-term-growth-in-a-sustainable-way/6922.article
- Bloomberg (2021). Deutsche Bank's DWS Orders Fresh Probe Into Greenwash Claims. Retrieved from: https://www.bloomberg.com/news/articles/2021-10-06/deutsche-bank-s-dws-orders-fresh-probe-into-esg-greenwash-claims
- Dimson, E., O. Karakas, and X. Li. (2012). "Active Ownership." Review of Financial Studies 28 (12): 3225–3268.
- Dweck, C. (2007). Mindset: The New Psychology of Success. Ballantine Books
- Dweck, C., Yeager, D., (2021). Global Mindset Initiative Introduction: Envisioning the Future of Growth Mindset Research in Education (August 25, 2021). Available at SSRN: https://ssrn.com/abstract=3911564
- ECB (2020). The performance and resilience of green finance instruments: ESG funds and green bonds. Retrieved from: https://www.ecb.europa.eu/pub/financial-stability/fsr/focus/2020/html/ecb.fsrbox202011_07~12b8ddd530.en.html
- EIB (2020). MDBs' climate finance in low- and middle-income countries. Retrieved from: https://www.eib.org/en/press/all/2020-220-mdbs-climate-finance-in-low-and-middle-income-countries-reaches-usd415-billion-in-2019
- ESG Clarity (2021). Net zero accounting tricks would land people in jail if tried. Retrieved from: https://esgclarity.com/net-zero-accounting-tricks-would-land-people-in-jail-if-tried/?msdynttrid=HHIPqilJEUZICNwJFXd7qyhEh1Fw2d_0C4HGTizmfN0
- European Commission (2019). Regulation on sustainability-related disclosures in the financial services sector. Retrieved from: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019R2088
- European Commission (2020). EU Taxonomy for Sustainable Activities. Retrieved from: https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en
- G7 (2021). *Panel on Economic Resilience. Key Policy Recommendations*. Retrieved from: https://www.g7uk.org/wp-content/uploads/2021/06/G7-Economic-Resilience-Panel-Key-Policy-Recommendations.pdf
- Gigerenzer, G, & Gassmaier, W. (2011). "*Heuristic decision making*." *Annual Review of Psychology, 62.* 451-482.
- Gigerenzer, G., Mousavi, S. (2014). "*Risk, uncertainty, and heuristics*." *Journal of Business Research, 67*(8), 1671-1678.
- Gigerenzer, G., & Neth, H. (2015). "Heuristics: Tools for an uncertain world." In R. Scott & S. Kosslyn (Eds.), Emerging Trends in the social and behavioral sciences (pp. 1-18). New York, NY: Wiley.

- IMF (2021). How Investment Funds Can Drive the Green Transition. Retrieved from: https://blogs.imf.org/2021/10/04/how-investment-funds-can-drive-the-green-transition/?utm_medium=email&utm_source=govdelivery
- IPCC (2021). 6th Assessment Report. Retrieved from: https://www.ipcc.ch/site/assets/uploads/2021/06/Fact_sheet_AR6.pdf
- Kurtz, L. (2013). "Looking Forward Looking Back: A Hitchhiker's Guide to Research on Social and Sustainable Investment." Tilburg, The Netherlands: Tilburg University.
- Lioui, A. (2019*). "The DeCarbonisation Factor: A New Academic Fiction?"* EDHEC Risk Institute. Retrieved from https://www.scientificbeta.com/media/files/2020/01/13/The_DeCarbonisation_Factor_A_New_Academic_Fiction.pdf
- Lo, A. (2004). The adaptive markets hypothesis: Market efficiency from an evolutionary perspective. Journal of Portfolio Management, 30(5), 15-29.
- Mandelbrot, B. (2006) *The Misbehaviour of Markets***.** Basic Books, New York
- Milkman, K. (2021). How to Change: The Science of Getting from Where You Are to Where You Want to Be. Portfolio Publisher.
- OECD (2020). Climate Finance for Developing Countries. Retrieved from: https://www.oecd.org/newsroom/climate-finance-for-developing-countries-rose-to-usd-78-9-billion-in-2018oecd.htm
- Roth, G. (2007). Persönlichkeit, Entscheidung und Verhalten: Warum es so schwierig ist, sich und andere zu ändern. Stuttgart, Germany: Klett-Cotta.
- SavvyInvestor (2021). SavvyInvestor Search. Retrieved from: https://www.savvyinvestor.net
- Schuller, M. (2017). "*Survival strategy: A learning investment team.*" CFA Institute Enterprising Investor. Retrieved from https://blogs.cfainstitute.org/investor/2017/03/30/survival-strategy-a-learning-investment-team/.
- Schuller, M., Mousavi, S., & Gadzinski, G. (2018). "More rational investment decisions through heuristics management." Academy of Management, Annual Summit, Chicago. Conference Paper.
- Schuller, M. (2020). *The Glorification of Change*. CFA Institute. Enterprising Investor. Retrieved from: https://blogs.cfainstitute.org/investor/2020/06/03/the-half-life-of-financial-knowledge-glorification-of-change-vs-innovative-specialization/
- Shefrin, H. (1999). Beyond greed and fear: understanding behavioral finance and the psychology of investing. Boston, MA: Harvard University Press.
- Taleb, N. (2014). *Antifragile: Things That Gain from Disorder*. Random House Publishing Group
- TCFD (2017). *Recommendations of the Task Force on Climate-related Financial Disclosures. Retrieved* from: https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf
- Thaler, R. H., & Sunstein, C. (2008). Nudge: Improving decisions about health, wealth, and happiness. New Haven, CT: Yale University Press.
- Townsend, B. (2020). "*From SRI to ESG: The Origins of Socially Responsible and Sustainable Investing.*" The Journal of Impact and ESG Investing. Fall 2020. Volume 1.
- UK COP26 (2021) *COP26 Mission*. Retrieved from: https://ukcop26.org
- UK COP26a (2021) *COP26 Explained.* Retrieved from: https://ukcop26.org/wp-content/uploads/2021/07/COP26-Explained.pdf
- UN (2015). *Resolution of General Assembly*. Retrieved from: https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E
- UN (2015). *Paris Agreement Key Aspects*. Retrieved from: https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement/key-aspects-of-the-paris-agreement
- UNCC (2021). *New Financial Alliance for Net Zero Emissions Launches.* Retrieved from: https://unfccc.int/news/new-financial-alliance-for-net-zero-emissions-launches

Panthera Solutions Sarl | 5, Avenue Saint Laurent | MC 98000 Monaco

Company VAT: FR 77 00008502 6

Company ID: 18S07917