Integration of **climate risks** into **portfolio strategy**

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Climate change is all around us – it is a key long-term, systemic and global risk. What can institutional investors do to integrate climate change-related investment risks into their portfolio strategies?

1

CAN CLIMATE CHANGE BE IGNORED?

Many asset owners and investors still argue that climate change-related investment risk is not real. To achieve optimal investment results – so goes their line of argument – climate risk is largely irrelevant. At best, it can be completely ignored because regulation does not require any action. Is climate change risk really immaterial for investment decisions, risk management and portfolio strategy? Here are a few arguments that may change your mind.[1]

1/ The European Parliament passed a new Institutions for Occupational Retirement Provision (IORP) Directive II in 2016. It states that pension funds' "risk assessment should include risks related to climate change […] and risks related to the depreciation of assets due to regulatory change ('stranded assets')."[2]

2/ Mid-2017, most French-domiciled Institutional Investors are required to report on ESG integration and climate change risk in their portfolio. Additionally, climate risk-related portfolio stress tests are recommended. Both are the result of the Article 173 of the French Energy Transition Law, which works on a comply or explain approach.

3/ The French Article 173 may have spillover effects on Europe. The Expert Group on Sustainable Finance of the European Commission is currently discussing similar avenues about ESG and climate risk-related portfolio reporting.

FOUR OUT OF FIVE GLOBAL RISKS ARE DIRECTLY RELATED TO CLIMATE CHANGE AND ENVIRONMENTAL CHALLENGES

[1] Institutions for Occupational Retirement Provision Directive (IORP II) Directive (2016), Article 57. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L2341&from=EN
Forum pour l'investissement responsible: Article 173-VI: Understanding the French regulation on investor climate reporting FIR Handbook No. 1 The ESG-Climate approach: from reporting to strategy, a tool for better investing October 2016. Retrieved from: http://www.frenchsif.org/isr-esg/wp-content/uploads/Understanding_article173-French_SIF_Handbook.pdf
Principles for Responsible Investment (2016), French Energy Transition Law: Global Investor Briefing. Retrieved from: https://www.unpri.org/news/what-the-french-energy-transition-law-means-for-investors-globally
[2] PRI Association: "Institutions for Occupational Retirement Provision (IORP) Directive: ESG Clauses" (https://www.unpri.org/download_report/20476)

A FAILURE OF CLIMATE CHANGE MITIGATION AND ADAPTION TOP OF THE AGENDA

Top 5 Global Risks in Terms of Impact according to World Economic Forum surveys 2007–2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	Asset price collapse	Asset price collapse	Asset price collapse	Asset price collapse	Fiscal crises	Major systemic financial failure	Major systemic financial failure	Fiscal crises	Water crises	Failure of climate change mitigation and adaption	Weapons of mass destruction
2	Retrench-ment from globalisation	Retrench-ment from globalisation (developed)	Retrench-ment from globalisation (developed)	Retrench-ment from globalisation (developed)	Climate change	Water supply crises	Water supply crises	Climate change	Rapid and massive spread of infectious diseases	Weapons of mass destruction	Extreme weather events
3	Interstate and civil wars	Slowing Chinese economy (<5%)	Oil and gas price spike	Oil and gas price spike	Geopolitical conflict	Food shortage crises	Chronic fiscal imbalances	Water crises	Weapons of mass destruction	Water crises	Water crises
4	Pandemics	Oil and gas price spike	Chronic disease	Chronic disease	Fiscal crises	Chronic fiscal imbalances	Diffusion of weapons of mass destruction	Unemploy-ment and under-employment	Interstate conflict with regional con-sequences	Large-scale involuntary migration	Major natural disasters
5	Oil price shock	Pandemics	Fiscal crises	Fiscal crises	Extreme energy price volatility	Extreme volatility in energy and agriculture prices	Failure of climate change adaption	Critical information infrastructure breakdown	Failure of climate change adaption	Severe energy price shock	Failure of climate change mitigation and adaption

Economic · Environmental · Geopolitical · Social · Technological

Source: World Economic Forum 2017, The Global Risks Report 2017, 12th edition, p.4. Global risks may not be strictly comparable across years, as definitions and the set of global risks have evolved with new issues emerging on the 10-year horizon. For example, cyberattacks, income disparity and unemployment entered the set of global risks in 2012. Some global risks were reclassified: water crises and rising income disparity were re-categorised first as societal risks and then as a trend in the 2015 and 2016 Global Risks Reports, respectively. The 2006 edition of the Global Risks Report did not have a risks landscape.

2 IT CANNOT BE DIVERSIFIED AWAY

Investors need to understand that climate change is a key long-term, systemic and truly global risk that ultimately cannot be diversified. Since there is only a small likelihood of escaping mother earth, mankind should rather take climate risk seriously. Elon Musk, the CEO of Tesla, Solarworld and SpaceEX, plans to colonise Mars, but this may not be a safe bet![3]

In its 2017 survey, the World Economic Forum (WEF) considers four out of five global risks to be directly or indirectly related to climate change (see **chart** A/). Climate change risks now outpace financial risks.

If all the climate policy targets of the COP21 Paris international climate agreement are to be reached, greenhouse gas (GHG) emissions need to be cut by approximately 95% by 2050! The economy needs to move beyond carbon. This implies a massive overhaul of business models, especially in the utilities, mining and energy sector, but also in most other industries like transportation.

3 REGULATION AS EXTREME RISK

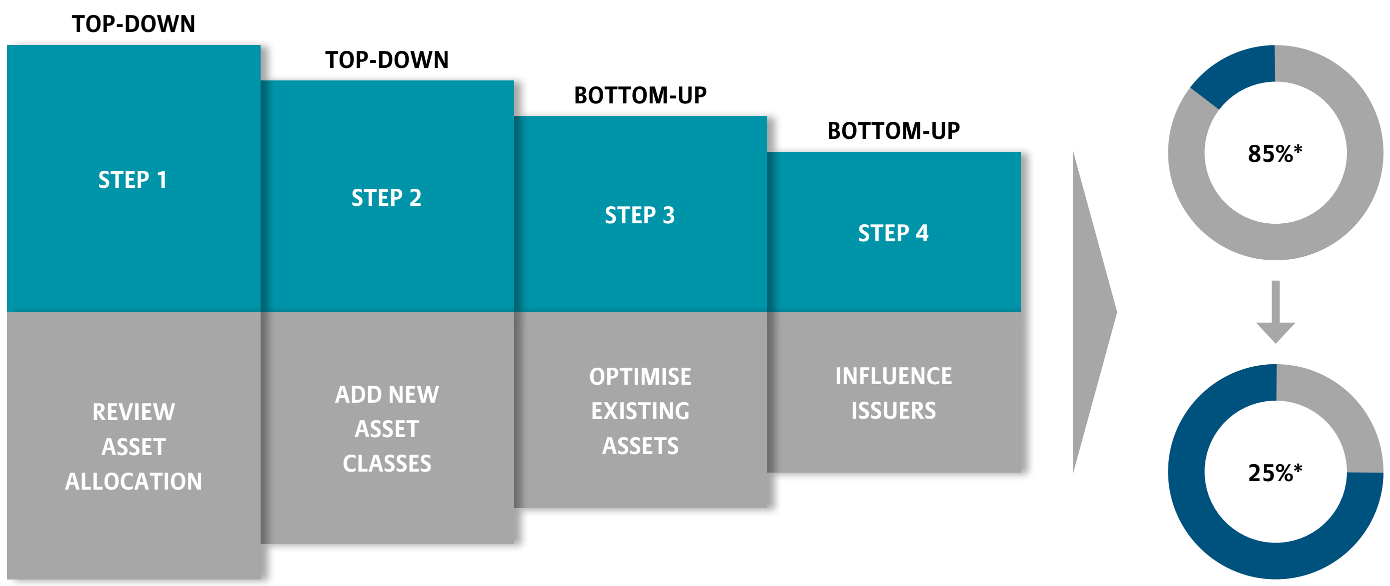
Any industry sector or corporate not moving fast enough to adjust its products, services and production to a green, low-carbon economy is exposed to climate transition risk, and may fail to deliver the financial returns expected on a mid-term horizon. For example, the profitability outlook of specific car manufacturers needs to be evaluated in the context of meeting the EU legislation for reducing passenger car emissions. The EU sets a fleet average target by 2021, to be achieved by all new cars, of 95 grams of CO-2 per kilometre. This represents a reduction of 40% compared with 2007. When exceeding this emissions target, car manufacturers have to pay penalties.[4]

Exceptionally sudden regulatory steps to curb and tax emissions may trigger short-term financial tail risks, as corporates may not be ready to radically adjust their business model. While of different cause, and not geared to curb global warming, the German decision to rapidly exit nuclear power after the Fukushima event has shown how swiftly the business outlook of utilities can be turned upside down.

The Financial Stability Board (FSB) was established in 2009 with the goal to enhance the stability of the global financial system, the efficiency of financial markets and the mitigation of systemic risk. As of 2016 the FSB has developed a framework for corporate, climate-related financial risk disclosures. Gradual disclosure will allow capital markets and firms to better understand, measure and price climate-related risk. The FSB has even discussed possible stress tests on firms' climate risk exposure, to evaluate the repricing of assets through extreme events.[5]

[3] Elon Musk announces his plan to colonise Mars and save humanity. Retrieved from: https://www.wired.com/2016/09/elon-musk-colonize-mars/
[4] European Union climate action: Reducing CO2 emissions from passenger cars. Retrieved from: https://ec.europa.eu/clima/policies/transport/vehicles/cars_en
[5] Financial Stability Board's Task Force on Climate-related Financial Disclosures (2016), Recommendations of the Task Force on Climate-related Financial Disclosures. Retrieved from: https://www.fsb-tcfd.org/wp-content/uploads/2016/12/TCFD-Recommendations-Report-A4-14-Dec-2016.pdf

B FOUR-STEP PLAN TO INTEGRATE CLIMATE RISKS INTO PORTFOLIO STRATEGY



*Steps 1–4 leading to a reduction in Climate Change Risk Exposure

Source: Allianz Global Investors, April 2017. For illustrative purposes only. Please note: the conclusions from the research studies analysed and summarised do not necessarily reflect Allianz Global Investor's investment opinion. The research does not imply investment advice or investment performance-related forecasts.

4 THE RIGHT PORTFOLIO STRATEGY

So what can an asset owner and investor do to integrate climate change investment risks into portfolio strategies? The suggested four-step approach shows a solution (see **chart** B/).

STEP 1 (TOP-DOWN): INTEGRATION OF CLIMATE RISKS INTO STRATEGIC ASSET ALLOCATION (SAA)

OBJECTIVES: analyse how climate risks may alter the asset allocation choice with respect to a reference portfolio. The key input is an analysis of what defines climate risk, and how it may translate into future performance of asset classes. Together with Allianz Climate Solutions, Allianz Global Investors has developed a climate change risk heat map across all asset classes to assess climate risk exposure and sensitivity.[6]

STEP 2 (TOP-DOWN): REVIEW NEW CLIMATE OPPORTUNITY ASSET CLASSES

OBJECTIVES: analyse how green bonds, climate transition equity opportunities, private debt and private equity green-tech or renewable energy infrastructure, etc. may improve overall portfolio performance. A sustainable, transformational trend towards a low-carbon society will require massive efforts and financing on a global scale, and may create attractive investment opportunities.

STEP 3 (BOTTOM-UP): INVESTIGATE CLIMATE RISK OPTIMISATION OF EXISTING ASSET CLASSES

OBJECTIVES: investigate within existing asset classes how fundamental research and active investment choices can be optimised with respect to managing climate risk exposure or opportunities. In equity and bond portfolios, high climate tail risk across sectors and corporates should be carefully analysed and potentially be underweighted, e.g. avoid worst-in-class corporates while considering 'climate change winners'.

STEP 4 (BOTTOM-UP): AIM TO INFLUENCE ISSUER PERFORMANCE WITH RESPECT TO CLIMATE RISK

OBJECTIVES: review how an active asset manager may improve the performance of selected corporates whose business success appears exposed to climate transition risks, through corporate engagement and proxy voting strategies.

The Asset Owners Disclosure Project (AODP) (Status: Q1 2017) aims to benchmark the expertise and approach to managing the financial impact of climate change on investment portfolios. In the most recent 2017 Global Climate 500 Index, Allianz Global Investors was ranked 6th in the group of the world's 50 biggest asset managers, who between them manage over 70% of global AUM.

[6] Allianz Global Investors (2017), Heat map of climate risks across asset classes. Retrieved from: https://www.allianzgi.com/insights/investment-themes-and-strategy/the-heat-is-on

5 CARBON FOOTPRINT

For asset owners and investors, a complementary action to deal with climate change risks is to create more portfolio transparency. In compliance with new Article 173 of the French Energy Transition Law, most institutional investors in France are required to publish their activities to contribute to a green economy, and the control of GHG in the context of their investments.

While the regulator has not defined the reporting format, the French asset management association AFG has recommended reporting portfolios against four criteria: ESG integration, carbon footprint, contribution to energy transition and climate transition risk. Allianz Global Investors has produced over 250 mutual fund and mandate-related ESG and climate risk portfolio reports for its French clients, that build on the AFG recommendations.

In the context of climate change, the measurement of a portfolio's carbon footprint has emerged as a tool to make the impact of investments on climate change more transparent. It tries to capture the total amount of GHG caused by the individual portfolio holdings. **Chart** C/ shows an excerpt of a portfolio's carbon footprint report.

C CARBON FOOTPRINT PORTFOLIO REPORT

Carbon emissions are estimated on direct (scope 1) and indirect (scope 2 only) carbon dioxide emissions of a corporate over its total revenues. Carbon intensity is measured by tCO_2 equivalent Emissions/mn EUR Sales.

The indicator covers a company's operations carbon emissions only. Furthermore, please be aware that the sector allocation of the portfolio and benchmark have a significant impact on total carbon intensity.

PORTFOLIO Carbon Intensity	BENCHMARK Carbon Intensity	PORTFOLIO VS. BENCHMARK Carbon Intensity		
		Above benchmark	In line with benchmark	Below benchmark
65	109			– 40.31%

This portfolio has as a carbon intensity lower than the benchmark.

Source: Allianz Global Investors, MSCI, as at 31 December 2016.

6 OUTLOOK

While there are manifold challenges for investors to reach their investment objectives these days, e.g. low interest rates and high (political) risks, climate change risks should not be ignored. Prudent asset management requires a forward-looking approach. Allianz Global Investors has summarised its view on climate change risk, potential research and investment measures in its new Climate Risk Investment Positioning, which can be accessed on the global ESG website. This statement summarises and answers the most important questions of our clients, and presents our views on climate change risks and opportunities.

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