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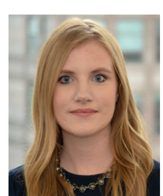
A framework to build stronger portfolios for a low-carbon world

AUTHORS

Yazann Romahi
Chief Investment Officer, Quantitative Beta Solutions

Aijaz Hussain
Portfolio Manager

Jennifer Wu
Global Head of Sustainable Investing



Katie Magee
Investment Specialist

Our carbon transition investment framework is designed to help our clients manage the risks of climate change, capture the opportunities and contribute to solutions. The framework, which combines multiple sources of information, including primary source data, sustainable research and data science, underpins our Carbon Transition Global Equity Strategy and is highly scalable and flexible for custom solutions.

A framework for investing in the carbon transition

The Sustainable Investing Team at J.P. Morgan Asset Management, in partnership with our Quantitative Beta Solutions group, has developed a proprietary framework for investing in the low-carbon transition. By identifying companies best positioned to benefit from this transition, we can create portfolios that seek to achieve a meaningful reduction in carbon emissions – without relying on exclusions or sector deviations – and also take advantage of the opportunities presented by the transition.

Our quantitative framework leverages data sourced directly from companies, insights from third-parties, and data from our quantitative research and artificial intelligence team. It is highly scalable and can be applied across asset classes, allowing investors to adjust a variety of inputs and parameters in line with their individual objectives, including the benchmark, tracking error and carbon reduction targets.

Our research suggests that there are three key ways that companies can prepare themselves for the transition to a low-carbon world. Analysis of company performance against these three key pillars forms the basis of our framework.

Managing emissions	Managing resources	Managing climate-related risks
Site emissions Reduce direct emissions and shift towards greener forms of energy	**Electricity management** Reduce indirect GHG emissions from the usage of electricity	**Physical risk** Mitigate impact of physical risks from extreme weather conditions
Consumer emissions & opportunities Benefit from a shift in consumer demands towards low carbon alternatives	**Water management** Improve the sustainability of water flow management	**Reputational risk** Improve climate stewardship
	Waste management Reduce waste materials, both hazardous and non-hazardous	

Managing emissions

The first pillar of our process evaluates companies based on how well they manage their GHG emissions.

Here we consider two sub-pillars:

Site emissions

- **Direct emissions:** We consider direct Scope 1 GHG emissions and the year-on-year trajectory for reducing Scope 1 emissions.
- **Use of fossil fuels:** We evaluate companies based on their use of fossil fuels, alongside their use of cleaner sources of energy.

Consumer emissions and opportunities

- **Indirect emissions:** We consider indirect Scope 3 GHG emissions and a year-on-year trajectory for reducing Scope 3 emissions.
- **Responding to consumption patterns:** We seek to identify companies that can benefit from the shift in consumption towards more sustainable solutions, perhaps via low-carbon patents or technological innovations.

Under both of these sub-pillars, we not only consider backward-looking measures of emissions, but also how companies are managing their business with sustainability in mind. Do they have a climate change policy? Have they committed to a science-based target to reduce greenhouse gas emissions? Inputs like these can help give us a sense of the company's level of focus on sustainability and an indication of their forward-looking trajectory.

By evaluating companies across these emissions-based measures, we can better understand a portfolio's exposure to GHG emissions or tilt towards companies with lower emissions compared to their peers, and towards those companies making a significant effort to reduce their emissions.

Understanding emissions: The three scopes

In the late 1990s, the Greenhouse Gas Protocol (GHG) was established to set accounting standards to measure and manage GHG emissions and encourage companies to report on their emissions via a corporate responsibility report. The GHG Protocol defined three key "scopes" for categorising emissions.

Scope 1	**Scope 2**	**Scope 3**
Direct emissions generated on site, for example at company facilities or via company vehicles.	**Indirect emissions** generated from electricity purchased or used by an organisation.	All other emissions that are **related** to an organisation's activities, but **not under its direct control** – for example because they are generated by suppliers, or because they are associated with the use of a company's products (eg cars).

Source: J.P. Morgan Asset Management. For illustrative purposes only.

Managing resources

Beyond just lowering GHG emissions, in order to truly transition to a lower carbon world, companies should also focus on managing other resources, including energy, water and waste.

Energy management:

- We consider a company's indirect Scope 2 emissions from electricity usage, as well as the year-on-year trajectory to reduce Scope 2 emissions and the energy efficiency of the business.
- We also consider a company's use or production of renewable energy sources.

Water management:

- We consider a number of metrics relating to how a company uses water, its policy towards water efficiency, and whether it is involved in clean water initiatives.

Waste management:

- While carbon dioxide is the poster child for GHG emissions, a number of other gases have the same impact on the planet, and are often released via improper waste management or landfills.
- Under this pillar, we consider a company's total waste, its hazardous waste and its focus on recycling and re-use.

The final pillar in our evaluation framework focuses on how well a company manages its climate-related risks – both physical and reputational.

Managing climate-related risks

Physical risk:

- We consider how well a company is positioned to withstand physical risks that could occur as a result of climate change – for example, coastal flooding or extreme heat.

Reputational risk:

- We consider any environmental fines a company has faced, and also how well it incorporates sustainability considerations into its business, for example via an ESG – related[1] compensation policy.

[1] ESG=environmental, social and governance.

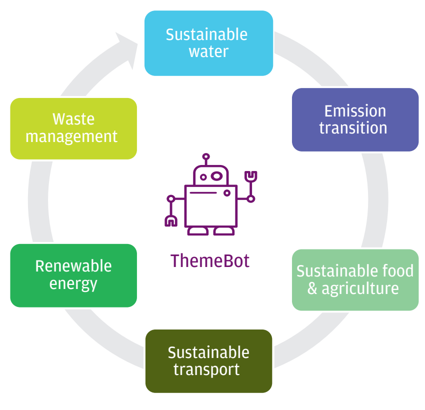
Using alternative data to broaden the opportunity set

Traditional sources of corporate information, such as company reports and analysis from third-party data providers, are useful in analysing whether companies are managing their businesses sustainably. However, this data can be patchy. Many companies don't report their emissions, and it is challenging to uncover the companies creating the innovative solutions and technologies required for a low carbon world.

To address this issue, we rely on our expertise in artificial intelligence and big data, and a proprietary technology tool, ThemeBot. This tool uses natural language processing to screen more than 10,000 stocks globally, and rapidly analyses hundreds of millions of data sources – such as news articles, company reports, earnings transcripts, and broker research – to identify stocks with the highest exposure to a theme.

For our carbon transition framework, we've selected a number of innovative climate solutions that will be required to spur change towards a low-carbon world.

We use ThemeBot to identify companies involved in areas such as renewable energy, sustainable food and agriculture and sustainable transport, as well as companies focusing on energy efficiency or offsetting their carbon footprint.



Source: J.P. Morgan Asset Management. For illustrative purposes only.

Building a carbon transition index

Our flexible framework for evaluating the preparedness of companies around the world allows us to:

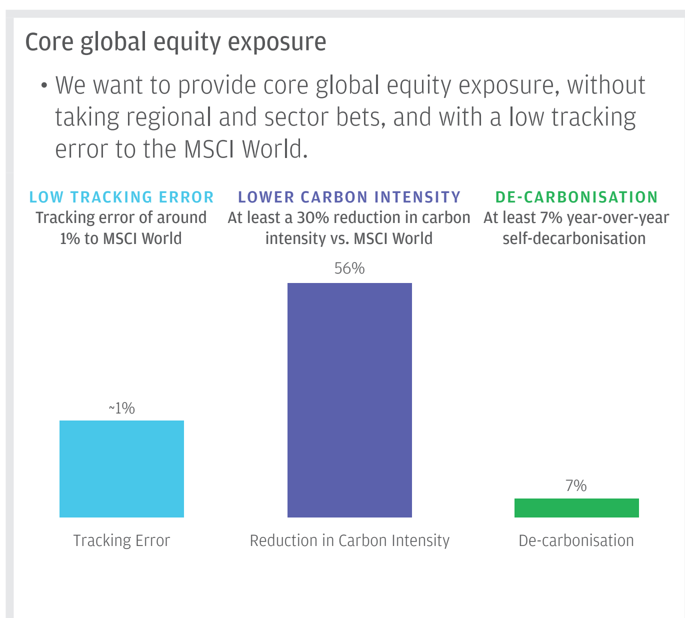
- Evaluate portfolios based on their carbon exposure and transition readiness
- Construct portfolios – in equities and fixed income – that are better positioned for the low-carbon world
- Take into account considerations such as turnover, tracking error and exclusions

Using our evaluation framework, we have constructed the J.P. Morgan Asset Management Carbon Transition Global Equity Index: a proprietary benchmark that is designed to align with the EU's Climate Transition Benchmark standards.

Key characteristics of the J.P. Morgan Asset Management Carbon Transition Global Equity Index

Core global equity exposure

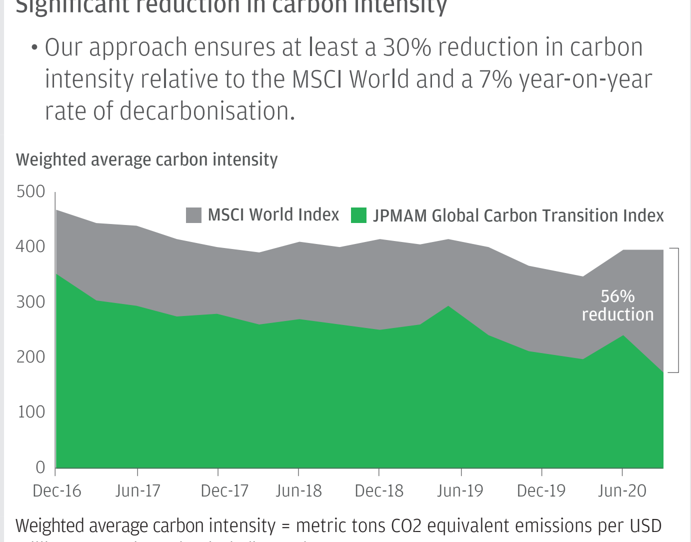
- We want to provide core global equity exposure, without taking regional and sector bets, and with a low tracking error to the MSCI World.



Significant reduction in carbon intensity

- Our approach ensures at least a 30% reduction in carbon intensity relative to the MSCI World and a 7% year-on-year rate of decarbonisation.

Weighted average carbon intensity



Weighted average carbon intensity = metric tons CO2 equivalent emissions per USD million enterprise value including cash.

Minimal exclusions

- The transition to a low-carbon economy will impact all sectors, and the sectors most highly exposed to climate change issues are the same sectors that will need to make the biggest changes to get us to a low-carbon future.
- Rather than reduce emissions simply by excluding companies in high carbon sectors, we instead want to encourage change and engage with these companies through our ownership and stewardship.

The end result is a portfolio that overweights those stocks with the highest carbon transition scores, while taking underweights in those most exposed to transition risk, but with similar regional and sector exposures, a significant reduction in carbon intensity and an improvement in resource efficiency.

Since Inception: December 2016	JPMAM Carbon Transition Global Equity Index	MSCI World Index
Annualised return	10.5%	10.4%
Risk (monthly)	14.7%	15.2%
Return/risk	0.73	0.69
Tracking error	1.2%	–

Sector exposure

25%
20%
15%
10%
5%
0%
Carbon Transition Index
MSCI World Index
Utilities
Real Estate
Materials
Information Technology
Industrials
Health Care
Financials
Energy
Consumer Staples
Consumer Discretionary
Communication Services

Source: J.P. Morgan Asset Management, as at 30 September 2020. Carbon Transition Index is the JPMorgan Asset Management Carbon Transition Global Equity Index. Past performance is not a reliable indicator of current and future results.

Building stronger portfolios

At J.P. Morgan Asset Management, collaborating with our clients in an effort to build stronger portfolios drives everything we do.

We are committed to sharing our expertise, insights and solutions to help make better investment decisions. Whatever you are looking to achieve, together we can solve it.

For further information about our carbon transition framework, please contact your usual J.P. Morgan Asset Management representative.

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