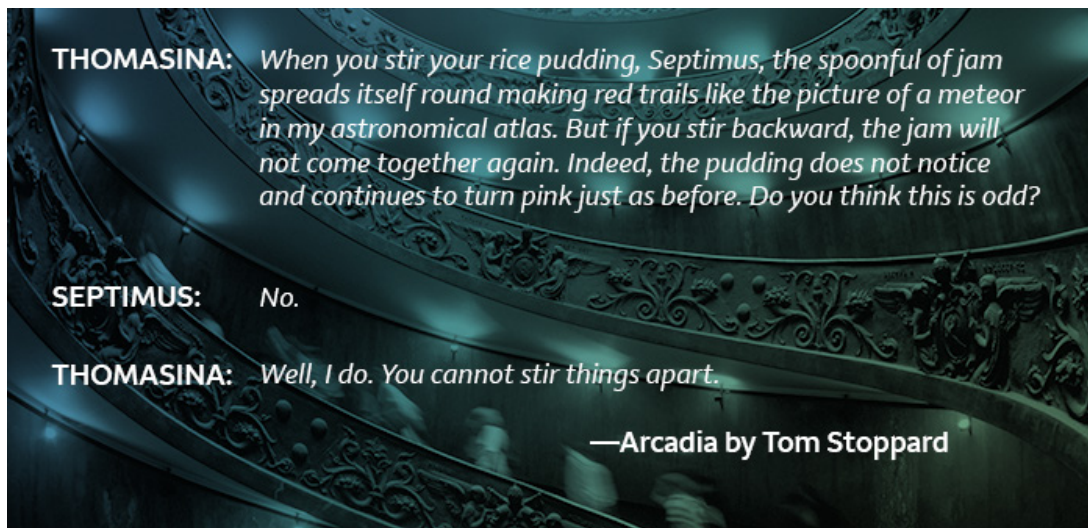


Five ways to decarbonize a portfolio: A timeline of techniques

By: Hannah Skeates, Co-Head of Sustainable Investing

Key insights:

- Thinking has evolved in the past 10 years on the variety of ways to reduce the level of carbon in an investment portfolio.
- In this post, we'll describe five approaches to decarbonization in the form of a timeline spanning from circa 2008 to the present.
- Illustrated is a progression of ideas, shifting over time to, most recently, a strategic approach based on goals for achieving a sustainable global economy.



Over the years, I've sat down with many investors who were interested in learning about how they could reduce the carbon¹ in their portfolios. Often they weren't sure where to begin. Over the past decade, the investment community's thinking on how to decarbonize a portfolio has evolved from outright divestment to a more strategic approach based on now widely accepted sustainable economy goals. Here's the story I often end up telling ...



Divestment

1. In the beginning, there was divestment.

And when I say the beginning, I'm talking about sometime around 2008, or maybe before. Back then, divestment was seen as very radical and activist—the type of thing university students had on a placard. As a result, the thinking about how to create a low-carbon investment strategy boiled down to this:

- Fossil fuel energy companies were deemed to be exacerbating the world's environmental issues
- And therefore the solution was not to have them in a portfolio

Some might have called this approach *low* in terms of its carbon content. It was certainly *low-er*.



Optimization

2. After divestment came optimization.

A few people then started to wonder if they could approach the question of how to decarbonize in a more typical finance industry way (in other words, in a more quanty way). This inevitably leads to the word “optimization” ...

The question they had in mind was: Would it be possible to remove as much carbon as possible from a portfolio whilst maintaining its other characteristics? So they:

- Placed the portfolio companies into an optimizer
- Told it they still wanted to target the return and risk of the original benchmark
- But said they wanted to achieve this with as low a carbon presence as possible

All the flavour, but half the calories.

What was discovered through this process was that it's actually quite easy to knock out a chunk of carbon from a portfolio. Remove a few of the big emitters and hey, presto! You have lower carbon but something that looks comfortingly similar to what you had before!

... However, after a period of back-patting and feeling good about how virtuous one could be came a slight sense of unease. What had really changed? Was this approach with fewer companies going to enable the real-world decarbonization and a fundamental shift in the economy that some investors really desired?



Tilting

3. So, next in the story comes tilting.

If something wasn't quite fulfilling about the let-the-optimizer-do-it approach, what was the issue? Perhaps it partially had something to do with maintaining a performance objective in line with the traditional (that is, high-carbon) benchmark. Were the decarbonization approaches to date akin to acknowledging an unhealthy diet and stopping eating donuts—but doing nothing else?

At this point a mental shift occurs: We might have to detach somewhat from the idea that the original benchmark remains the untouchable goal.

After the United Nations Paris Agreement on climate change at the end of 2015, a realization came about that continuing with the business-as-usual global economy would have potentially existential implications. As one conference commentator put it, were we going to hell in a benchmark-shaped basket? And, on the flip side, if we were to start believing that the real economy would need to shift—to be based on something other than carbon and driven by fossil fuels—why would we want to attach ourselves to a performance benchmark embedded with something in structural decline?

With this in mind, the idea of tilting within industries or sectors comes into play. This approach came to the fore around 2017.

What is tilting? In what way? Well, thinking about each industry in turn—because all industries will be affected by the process of decarbonization—we can look at which companies are well placed for a transition to a low-carbon economy and which are less prepared (or maybe supportive of a change). Then comes the possibility of removing carbon, on a very deliberate basis, industry by industry, overweighting those companies that are more climate-friendly and underweighting those that are less friendly or less resilient. What this tilting also does is preserve the idea that we'll need all industries in the future—just low (or net zero) carbon versions of those industries. In some cases, this approach keeps all of the companies in the portfolio, just in differing weights. Others choose to be much more active and progressive in their implementation.

4. But, wait! Haven't we missed the divest/invest concept?

Good spot. You're right—we have.

Will we indeed need all industries in a decarbonized world?

Running alongside much of the above in our timeline is a concept known as divest/invest. This approach maintains that fossil-fuel-based companies will no longer be required in the future, and the money that's currently invested in those energy companies should instead be used to invest in climate solutions, like renewable energy development and implementation. Of course, this has other practical investment portfolio effects. Among others, divest/invest can imply a shift from holding very large, easily tradable companies to holding much smaller, less proven, and likely less liquid ones. In fact, some of these new companies may even be considered as being a different asset class—like infrastructure or real assets.

This concept, of course, reflects a reality in the underlying mix of types of energy and utilities companies in the world and the change that may need to occur. If **energy** is no longer driven by oil, gas, and coal, where will we get it? Well, this is where our structural shift to electricity-based energy (driven by renewable sources) comes into play. These sources—including solar and wind—are expected to power our cars, factories, homes, and offices. Today, the financials sector considers electricity to come from **utilities** companies that are fed by **energy** companies. If we approach portfolio construction in this context, it does introduce other elements to consider.

5. Bringing us nearly up to date: The rise of goal-driven decarbonization

And so, we've arrived at the most recent chapter in the thinking about how to decarbonize a portfolio. Now the thinking is increasingly focused on setting a goal rather than just being arbitrarily lower in carbon emissions. For the most sophisticated, that goal is now to have a portfolio that either:

- Aligns with a 2.0 degrees or 1.5 degrees Celsius temperature rise and thus tries to match the ambition of the Paris Agreement
- Targets being net zero carbon in the future (linking to similar global climate management ideas)

Through 2019, alongside a widespread public conversation, a number of governments and large asset owners made commitments to get to net zero carbon emissions by 2050. What does this mean? Well, on the basis of the science underlying the Paris Agreement, global nations agreed to attempt to keep the global average temperature to within a 2 degrees Celsius rise above where it was at preindustrial levels by the year 2100. Their objective is simple: avoid catastrophic climate change. They want to plan and act now and save the cost of being unprepared in the future.



The calculations say that the world is already 1 degree Celsius warmer, so there's only (less than) 1 degree Celsius of wiggle room left. In order to stand a chance of hitting this target, we need to essentially remove carbon emissions from our global economy by 2050—that is, to be net zero on releasing emissions in the next 30 years.

This chapter in the decarbonization story says we need to look at companies and industries from a temperature alignment perspective and invest accordingly. Which companies are on the right trajectory? How do we analyze them from a temperature perspective? Which industries should exist in a net zero world? And for some industries, in what evolved form should they exist? Overall, how do we construct a portfolio in this forward-looking way?

Fortunately, many people are thinking about these incredibly complex questions. Decarbonizing some industries is exceptionally hard to do. We know that. So that's the challenge, but it's also the prize.

Final thoughts

So look! Now we're back to the *fossil fuel divestment question* again as one part of this puzzle, but this time with a new holistic goal. This time it's framed differently. This time decarbonization is not a constraint or a restriction of the universe. Rather, it's a manifestation of shifts occurring through members of the public and market players—who, in increasing numbers, are realizing that the social and economic winds are changing. Renewables and electricity seem to be the fuels of the future—alongside many other reimaged and reinvigorated industries—in partnership with a fair and equitable transition to a sustainable economy and world.

Yes, it's a massive shift, but this story is a good one—and one in which we all are more prepared and resilient in the end. The question that remains centres on asset owners' and their industry facilitators' preferences on if, and perhaps how quickly, they'd like to be involved in investing in such change and on considering their roles in this changing world. What part will they play in this possibly self-fulfilling prophecy?

We're on a journey, and it feels like there's no turning back.

Please see here for information about sustainable investing at Wells Fargo Asset Management. If you'd like to talk about what you might want to do in terms of decarbonization and where you fit in this timeline and story, please contact **Hannah** at hannah.skeates@wellsfargo.com.

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