



The Pension Polder Model for Climate Change: Great Dutch Asset Rotation to Converge with 'Deep Cleaning' and 'Deep Greening' of Portfolios

'Code Red for Humanity.' The ominous warning contained in the latest UN IPCC climate report that global warming is showing signs of spiralling out of control has ratcheted up the pressure on the €1.7 trillion Dutch pensions industry to effectively 'decarbonise' its investment portfolios in the shortest timeframe possible. But to achieve its climate goals, the largest private pensions market in the EU and the fourth biggest in the world, will need to embrace new approaches to portfolio risks and concepts of return that go far beyond the financial paradigm of traditional institutional asset liability models, speakers at a recent AXA IM online media roundtable concluded.

"From a scientific point of view, there really wasn't anything in the latest IPCC report that we didn't know already. The major change is that it really accentuated that mankind is causing this and it's also our responsibility to solve it and of course partly through the global financial system. The report highlighted the sense of urgency even more and it is also really starting to push the net-zero agenda...It raises the bar for pension funds and other asset owners to act even quicker than they were planning

for," Willemijn Verdegaal, Co-head Climate and ESG solutions at Ortec Finance in the Netherlands, told journalists. Verdegaal was formerly the Dutch government's lead climate finance negotiator.

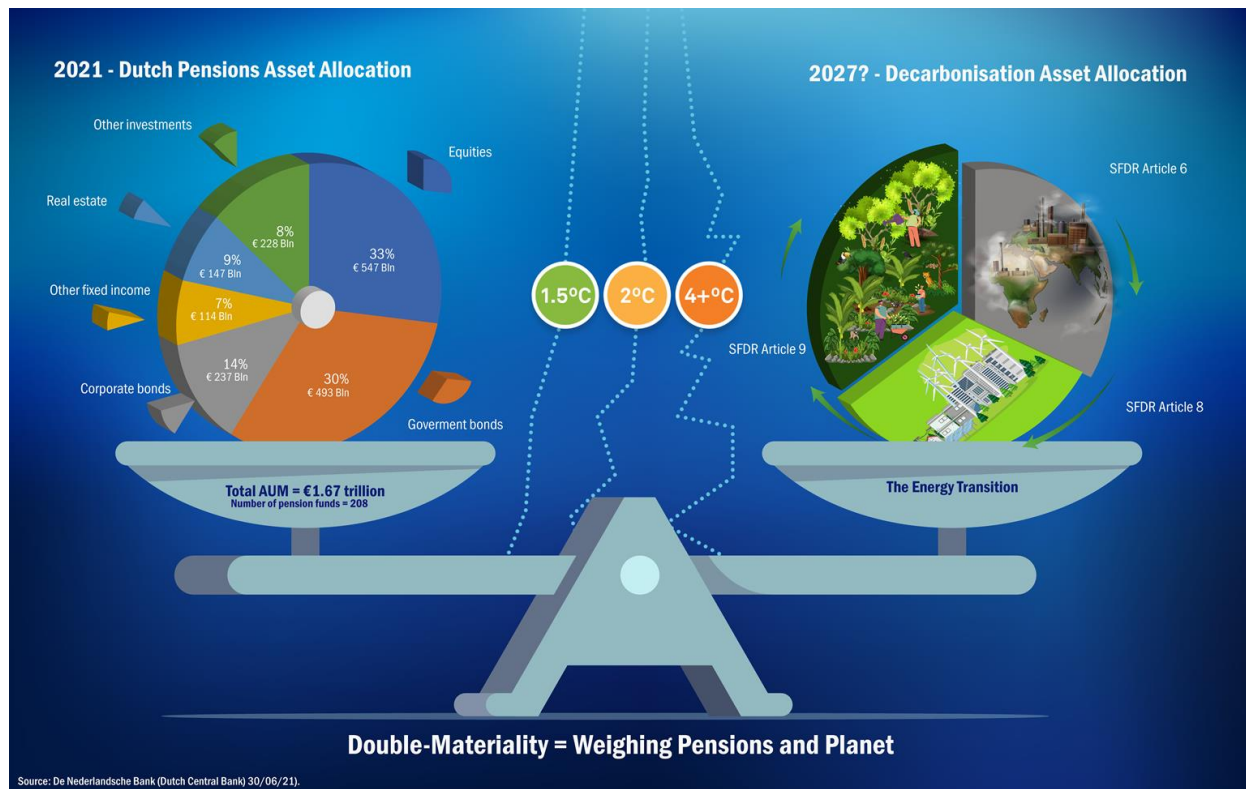
The Dutch have an existential relationship to the threat of climate change with 40% of the population living on the third of the country lying below the level of the North Sea to the west and with the major Rhine and Maas river systems flowing through from the south. This year's devastating floods in Europe, firmly attributed by scientists to the effects of global warming, could therefore be a harbinger of what the future may bring for the Netherlands without effective coordinated international efforts to curb greenhouse gas emissions. A global 'polder model for climate change' that mirrors the centuries old Dutch egalitarian system of all levels of society collaborating to build the dykes to protect lives and property against the common great external threat of rising water levels.

The large Dutch occupational retirement funds are already embarking on the biggest transformation in their history as they move from a defined benefit to a collective defined contribution system under radical pension reforms due to be implemented from 2027. AXA IM has calculated <https://www.axa-im.nl/great-dutch-bond-billions-rotation> that the changes in the regulatory institutional investing framework could mean as much as €300 billion flowing out from the pension funds' 30%, or €493 billion (June 2021), of holdings in ultra-low or negative-yielding government bonds, to other higher yielding cashflow-focused assets, notably corporate bonds.

But the implementation of the EU's 'Green Deal' legislative programme -- the alignment with the Global Paris Climate Accords to achieve a net carbon-neutral European economy by 2050 -- is increasingly adding an ESG investing overlay to this 'Great Asset Rotation.' A convergence that will colour institutional investments along the same timeline as the pension reforms due to the heightened urgency for the decarbonisation of portfolios in the energy transition.

Financial market participants were already required earlier this year to complete a 'green audit' of the sustainability of their financial products under the EU's Sustainable Financial Disclosure Regulation (SFDR) https://www.axa-im.nl/content/-/asset_publisher/L5CXjKtdohbJ/content/axa-im-groene-beleggingsstandaarden-eu-zetten-ook-in-obligatiemarkt-vs-de-trend/27104 and categorise them under different standards ranging from SFDR Article 6 (grey); which applies to products that either consider ESG risks as part of the investment process, or are explicitly declared as non-sustainable, to Article 8 (light green) for products promoting environmental or social characteristics; and Article 9 (dark green) for products that have sustainable investment as their investment objective. For pension funds, the 'product' is the pension scheme itself.

But the European Commission is now planning to go much further in speeding up the process of decarbonisation and addressing societal fairness in institutional investing by asking the EU pensions supervisor EIOPA to assess the potential need to introduce the notion of 'double materiality' in Europe's pension financing framework. Double materiality would require pension funds to equally weigh climate impact and societal factors alongside financial risks and returns in their investment decisions.



The Climate Pathway Portfolio 'Disorderly Shock' Looms Larger and Earlier

Willemijn Verdegaal said the Dutch pensions industry is a “very mixed bag” in how far advanced the funds are in integrating climate risk in their scenario analysis and strategic investment decision making. Some are extremely sophisticated in their thinking and have assembled high-calibre teams to tackle the issue, whereas others remain sceptical about committing resources, or changing their traditional approaches to portfolio risk management.

She added there was now a very small chance of the decarbonisation of Dutch institutional portfolios being executed in an orderly fashion due to the massive amount of adjustment that needs to take place in the real economy within a climate change timeframe that is “unchangingly short.”

“We (Ortec) were perhaps taking too much of a luxury with time in some of our modelling in pushing the ‘disorderly shock’ out to 2025 or 2026. Maybe we now have to model the disorderly shock takes place in 2022 to still be able to make those emissions reduction targets and that can be a real stressor for a pension fund in meeting its liabilities. Real action, disorderliness and disruption are being pulled forward and having that on a short timeframe is not always convenient for a lot of asset managers also struggling with other issues,” Verdegaal said.

“Our clients often think that switching to a low-carbon benchmark is a kind of ‘magic bullet’ to deal with climate risk, but it is much more than transition risk – physical risk is a really big part of it. You can have a very clean renewable energy wind park somewhere, but if it’s not protected against storms then that is still a financial risk in your portfolio,” she added.

While the underlying sustainability characteristics of the investment and the sector or region where it is located are the primary determinants of climate risk, it is also possible to make assumptions on the relative impact of capital allocations between investment asset classes as a whole, Verdegaaal noted: “Definitely in the short term, there is only a limited amount one can achieve in the listed equity space, because they’re the big incumbents at the moment...With pension funds thinking about supporting the energy transition and technical change towards a low-carbon future, then other asset classes in the private space, such as infrastructure and forestry, are very interesting and worth taking a serious look at. Also credits...From an engagement point of view, sometimes engaging with large polluters that may not be listed, but do have loans, could also be a very interesting angle if that fits the strategy of the fund,” she said.

Systemic climate risk versus holding-specific climate risk

- Climate-related risks are **systemic** and therefore **unhedgeable**.
- Climate change will fundamentally impact how the **economy performs as a whole**.
- ‘Stock-picking’ is **insufficient** to manage systemic risk.
- Therefore, taking **climate change** into account as a risk driver in your **strategic investment decision-making** is crucial.

Paris Orderly Pathway	Paris Disorderly Pathway	Failed Transition Pathway
<ul style="list-style-type: none"> Large transition impact due to policy measures & technology drivers Transition is assumed to occur as smoothly as possible Market pricing-in dynamics occur smoothed out over the 2021-2025 period Physical impacts occur up to 1.5/2°C which are greater than today but still much less than under a Failed Transition 	<ul style="list-style-type: none"> Large transition impact due to policy measures & technology drivers Transition has disruptive effects on financial markets with repricing followed by a sudden sentiment shock and stranded assets in 2025 Physical impacts occur up to 1.5/2°C which are greater than today but still much less than under a failed transition 	<ul style="list-style-type: none"> Limited transition impact - economies follow the business-as-usual track without additional new policy measures Severe physical impacts occur increasing over time – both gradual physical changes, as well as more frequent and severe extreme weather events Markets price in physical risks up to 2050 by end of this decade and post-2050 physical impacts from the mid-2030s
<p>In line with: Emissions ≈ IPCC RCP 2.6 Leading to global warming of 1.6°C by 2100.</p>	<p>In line with: Emissions ≈ IPCC RCP 2.6 Leading to global warming of 1.6°C by 2100.</p>	<p>In line with: Emissions ≈ IPCC RCP 8.5 Leading to global warming of 4.0°C by 2100.</p>



Creating a Climate Dashboard for Pension Investments

Bruno Bamberger, Solutions Strategist at AXA IM, told the media roundtable that institutional investors seeking to integrate climate into their investment decisions and portfolios are generally looking to fulfill three objectives:

- 1) At a minimum, to fulfill their regulatory objectives in considering climate change in their investment process.
- 2) Acknowledging that climate is both an emerging and potentially material risk to all asset owners.
- 3) To have a positive impact on the wider world by driving global emissions to net zero.

He said AXA IM has integrated measures of financial risk and climate metrics to create a 'Climate Dashboard' to help investors navigate their portfolios towards achieving these objectives.

The first key element of the dashboard is a 'carbon pathway,' which maps how equities and bond holdings are expected to progress over time in line with investors' carbon emission reduction targets on the road to the ultimate aim of net zero, when possible.

The second is the portfolio 'climate value at risk model.' This looks at what the value drop is in an investor's portfolio if climate risks are fully integrated today. While also acknowledging that climate risks are not 'fully' built into financial markets pricing.

"If you're looking at equities you might consider upside return potential; whereas in fixed income it might be more about downside risk mitigation. There's not one standard metric everyone is honing in on, except perhaps carbon emissions, which are very useful for reporting, but are backward-looking. As we know, most investors, most asset owners, want forward-looking metrics," Bamberger said.

Once the Climate Dashboard is created, in the fixed-income portfolio, for example, the investor can choose which tools they wish to use to implement their climate strategy from: engagement; exclusions; cashflow re-investments in different bonds; or active turnover and, ideally, a blend of all of these instruments.

Bamberger said AXA IM favoured 'engagement' over immediate turnover, because of the outsized 'transition impact' this can have on portfolios, particularly in the case of utilities, which are typically very high-emitting companies because of the nature of their businesses.

"If you have the three highest emitting names within (our example) portfolio, the allocation will be just under 2.5%, a very small proportion, but those three utility companies actually contribute over 50% of the carbon footprint of the portfolio...Either we sell them and reinvest in low-emitting names, or engage heavily and get them to agree to net-zero targets. This is our favoured approach and the impacts are quite clear: you can help improve the transition, you can maintain the financial characteristics of your portfolio and, indeed, the sectoral allocation, or you can divest from them. From

divesting you're not only incurring the transaction costs, but can actually also reduce your credit spread, and therefore your potential future financial performance," Bamberger concluded.

What tools do portfolio managers have to integrate climate?



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To Engage or Disengage – that is the Question

One institutional investor, the Dutch metalworkers pension fund PME, with 166,000 members and total assets under management of around €64 billion, concluded last year that engagement with the main polluting sector over reducing emissions was taking too long and producing limited results, so recently became the first major occupational retirement scheme in the Netherlands to completely disinvest all its remaining fossil-fuel investments for €1.2 billion.

"Engagement is a very sensitive instrument. You can use it, but you should use it wisely. It can never be a justification to continue investing in a certain company. What we've seen over recent years in engaging with oil and gas companies on climate change is that there's just not enough results and we don't see the major steps being taken that are necessary," Daan Spaargaren, Responsible Investment Strategist at PME Pensioenfond, told the media roundtable.

"Companies are moving slowly and primarily on paper...There's no time to wait. We've been asking companies for years to really start thinking about a strategy for shifting the energy system from fossil fuels to renewables. While we see a lot happening within our own sector (metal industries) and in the

wider economy, we believe the oil and gas companies are not moving fast enough along that track to be part of the (energy) transition,” he added.

Active Equity Quant Investing Best Placed to Handle Climate ‘Data Deluge’

The future frontiers of ESG investing in equities are being increasingly tested by active quantitative strategies, which are structurally and technologically best positioned to process the burgeoning volumes of market and scientific data in the field, Paul Flavier, Head of Rosenberg Equities at AXA Investment managers, told the media roundtable.

He said quantitative strategies are well-suited to handling and arbitrating between multi-dimensional objectives, which characterise the fast-developing universe of ESG investing, where there is still a lot of unstructured data. In contrast to some of the more passive investing strategies, which are really ‘mono-dimensional.’

“In passive climate products a lot of the portfolio composition will be driven by the market cap of the assets, typically more than 90% of the investment selection. Less than 10% may be driven by climate,” Flavier added.

“Investors and managers are overwhelmed by the ESG data deluge. So, having a quant or systematic approach helps you navigate through this forest of data. I think the next frontier in the quant space is to integrate some of these science-based (climate) targets that are published, or are starting to be published, first in an unstructured format, but in the future also in a more structured format...With the growing impact of regulation in this area, a number of ESG dimensions are almost becoming ‘compliance-like’ in guiding investments. We see controlling risk as a way to generate alpha through portfolio resilience. This is true in terms of volatility, but it should also be true in terms of long-term returns, a bit like we had with risk-return arbitrage in the past. Today we can have an ESG-risk-return arbitrage,” he said.

Rosenberg’s quantitative equity carbon offset strategy is designed to contribute to the carbon net-zero pathway of the client’s equities portfolio, while also having an impact on the real economy through climate action. This is achieved through first creating a portfolio that is low carbon by divesting from the worst polluters and investing in the ‘enablers,’ the companies that are most innovative in their contribution to the energy transition, or offer the biggest climate gains by implementing strategies to sharply reduce their emissions.

The second step of going from a reduced carbon footprint to zero is implemented by using carbon offset certificates. These finance real projects, which are only economically viable through the sale of the certificates.

The extraordinary circumstances of the Covid-19 pandemic have blurred market signals in the past two years, but it appears that the growing wave of ESG investing spurred by climate change topics is forcing

companies that were seen as sitting on stranded assets to take more radical action and transform themselves into players with 'innovation capacity,' Flavier said.

"Oil companies, for example, have a network of gas stations. Now you could look at these as stranded assets, but you could also see them as tremendous growth opportunities for transformation into electric vehicle charging stations. So, I think companies that dominate their markets today will still dominate in the future. Those that generate returns and dividends today will also be the ones generating returns and dividends in the future. But these returns will come from different assets. The investment opportunity will be identifying, through a data-driven process, those companies capable of transforming stranded assets into innovation" he concluded.



Participatory Democracy in Pension Land is Absolutely Necessary

The transition of the Dutch pension system to collective defined contribution schemes from defined benefit plans from 2027 will also mean the risks and returns from investments will fall to the individual plan member and they will equally determine to a large extent the characteristics of the type of assets in which their money is placed.

The 'democratisation' of asset allocation in Europe's largest private pension pool of 'moral money' might then be expected to direct capital flows towards those companies, securities and asset classes, which offer the greatest climate and societal impact for the Netherlands.

"Participation in pension fund land is absolutely necessary. I'm pushing our own members to speak up, to let me know how they think we should manage their capital and they do. We have a very active dialogue with many of the members we are serving. I think we can best represent their interests financially, but they also have non-financial concerns regarding our portfolio. We can offer them a choice on the risks that they would like to take in the new pension system and whether they want to go

for a high-risk or low-risk strategy and we will point out why we make certain choices,” PME’s Daan Spaargaren said.

What Does the Pensions Industry Need to do Tomorrow on Climate Change?

“I am a believer in markets. I believe that the change we need is so broad across the economy and society that there needs to be some kind of market mechanism to make that happen efficiently and if it’s incentivised correctly there’s a lot we can do,” Ortec’s Willemijn Verdegaal said.

She added that carbon pricing isn’t the holy grail, but it would be the best tool available now to stimulate the profound decarbonisation of economies required, while always needing to be buffered with subsidies. Ortec believes a robust and effective carbon price would be around \$100 a ton, compared with current record levels just above \$60.

“Our research shows that if we do get a Dutch energy transition there will be a lot of shifting around of jobs for sure, but actually it’s a net growth opportunity, especially if we can make it work in such a carbon-intensive society as the Netherlands. If we can decarbonise heavy industry and do so profitably in the climate pathway timeline needed, then we have an amazing export product for the rest of the world,” Verdegaal said.

When asked what Dutch pension funds needed to do now to have an impact on climate change and position themselves for the huge risks of global warming, she set out a four-point key action plan:

- 1) De-risk your portfolios. Expect a lot of volatility in the markets and create a portfolio that can deal with that.
- 2) Lobby governments in order to make them understand that a net-zero transition is definitely in everyone’s long-term interests, but it could have some painful consequences in the short term.
- 3) Divest from companies that don’t have a credible business case to seriously decarbonise on a 10-year horizon.
- 4) Scan your portfolios for physical risks because 1.5C degrees is already locked in and we’re going to see those effects coming online. You need to know where you’re at risk and what kind of adaption measures are being taken to deal with this.

“DO ALL THE ABOVE TOMORROW”



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