

Sustainable Finance at a Crossroads: New Challenges and Opportunities

Jonathan Taglialatela, PhD, CFA

Senior Assistant Professor

Department of Economics and Management, University of Pisa

Introduction and Agenda

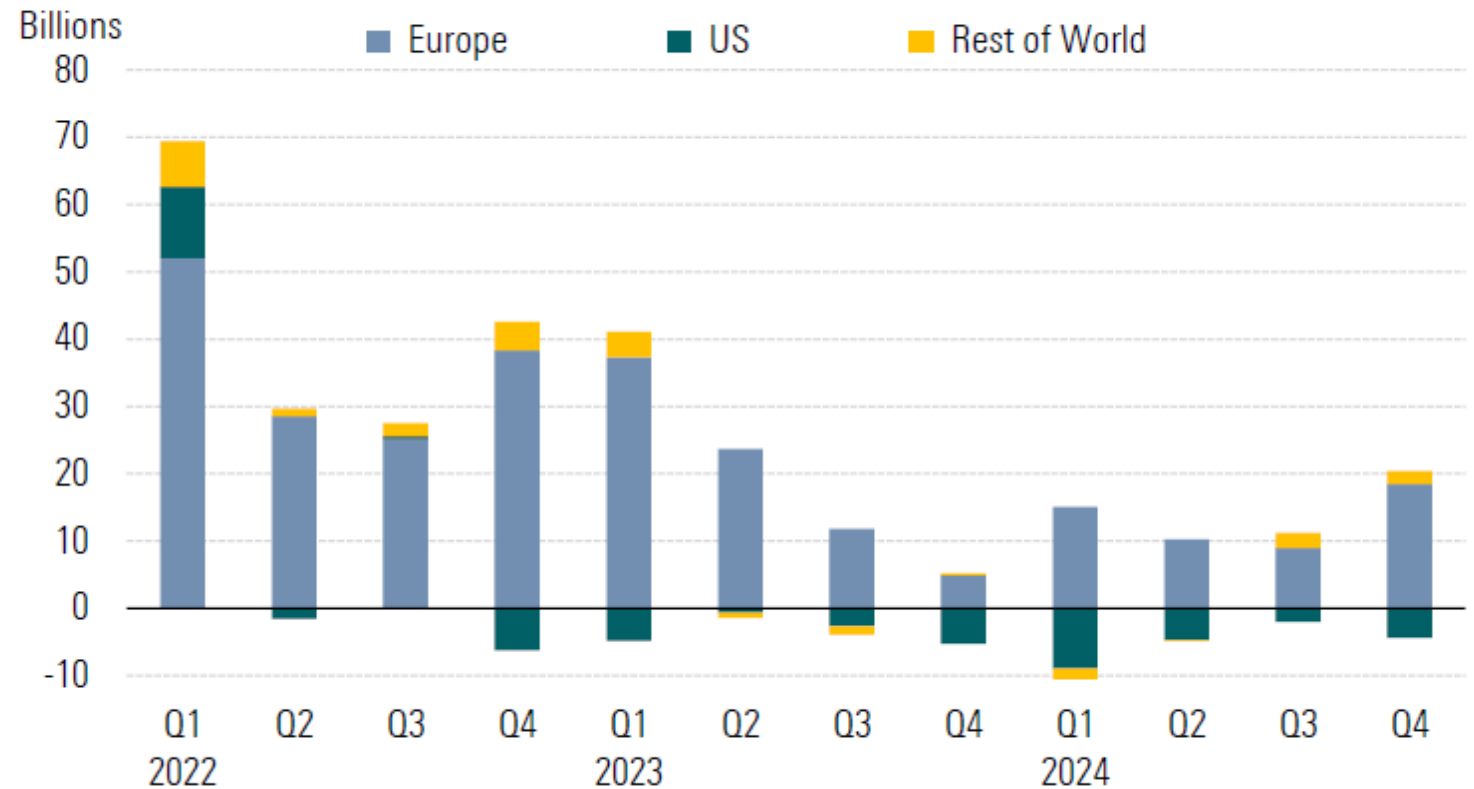
Key Questions:

1. How have ESG investing trends evolved post-Trump and post-COVID?
2. What are the drivers of ESG investments?
3. What are the latest legislative developments?
4. Is biodiversity the next major financial risk?

1.Sustainable Finance after Trump 2.0

- Net inflows in sustainable funds have been keeping up in 2024
- The sector has reshaped substantially: focus on energy transition, improved regulation, less “show-off”
- The term “ESG” will most likely disappear (see CFA)
- ESG risk are still present even though with a different name

Exhibit 2 Quarterly Global Sustainable Fund Flows (USD Billion)



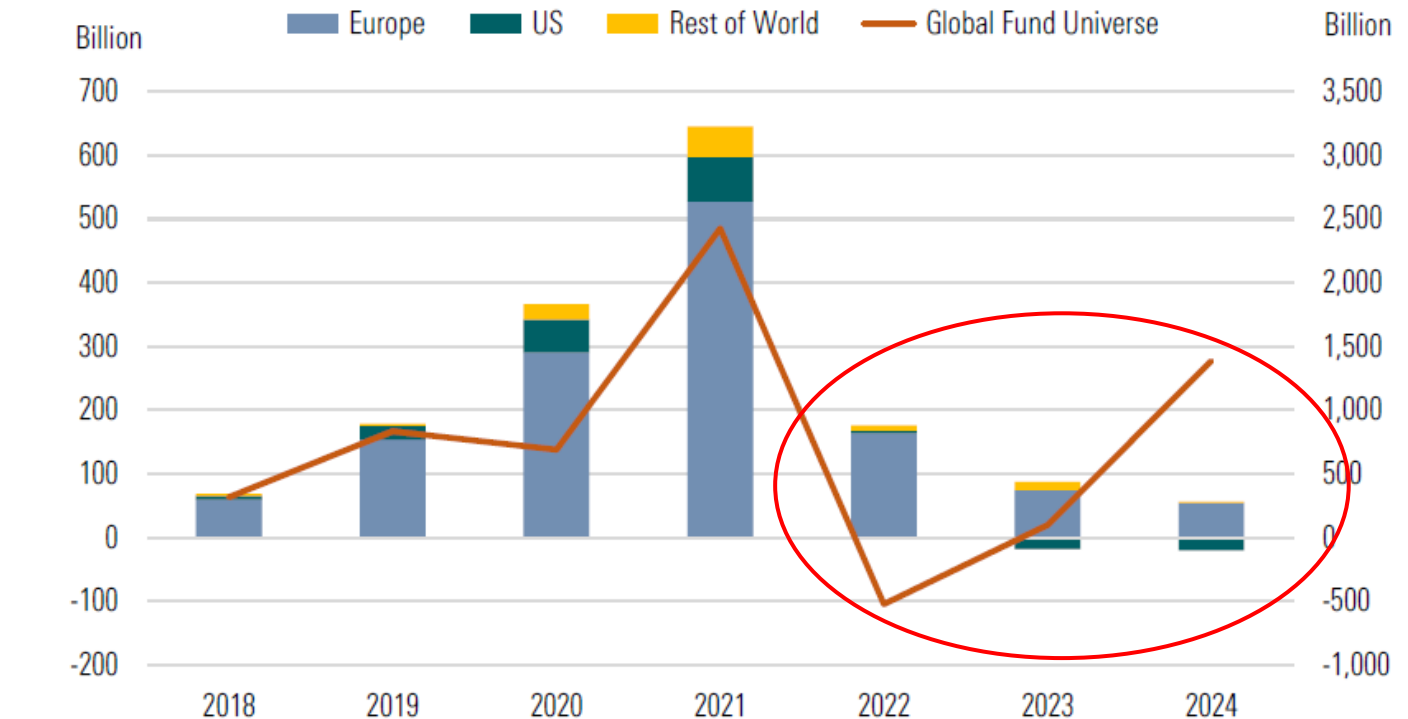
Source: Morningstar Direct. Data as of December 2024.

Source: Can sustainable investing survive Trump 2.0?

1. A divide between US and Europe

- US finance industry sector has already changed attitude toward sustainable investing (eg. Net-zero alliances disgregating)
- EU is the centre of green finance, with 84% of sustainable funds being based in the EU.
- Asset managers that left alliances have to deal with demands from European clients (see next slide)

Exhibit 3a Annual Global Sustainable Fund Flows by Region (USD Billion)



Source: Morningstar Direct. Data as of December 2024.

1. Net-Zero Alliances «no» moment

- - All largest US Banks (JPM, Citi, BofA, MS, WF and GS) left Net zero banking alliance
- Similarly, Vanguard and Blackrock left the Net-zero Asset Managers
- What happened?

1. Differences within and between

In the us, billions of dollars have been pulled from AM that declare support to climate and social actions -> new risk: loss of investments by the EU

According to a recent PRI research, a substantial difference exists between asset managers and asset owners (pension funds, insurers) -> 58% of the latter uses climate scenario analyses vs 28% of the former

Such differences persist also in terms of activism and increased between 2021 and 2023

Also between AM the support for green resolution diverged, with European ones still providing support to these measures

1. Amundi's story – new opportunities for EU asset managers



The UK People's Pension recently decided to pull £28B from State Street due to revisions to its responsible investment policy



Paris-based Amundi (2.2€tr of AuM) was the beneficiary of over £20B of that amount



This is around four-times the size of the 8,5\$bn withdrew from Blackrock a year ago



A similar story happened with a Danish pension fund that ended a 20-year old mandate with State Street

2. What drives ESG investments?

- Let's go back to the US for an additional moment
- One new question for you: see next slide

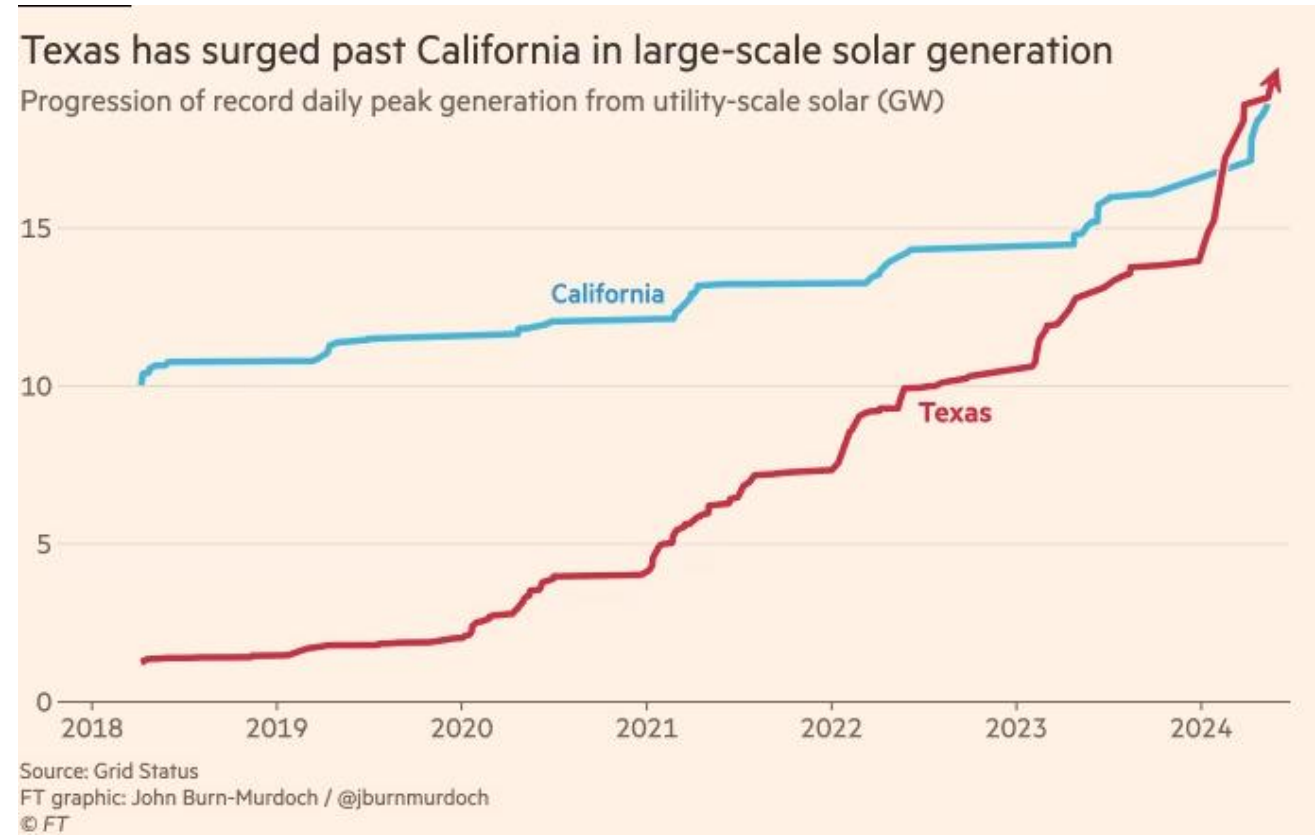
2. What drives ESG investments?

Surprisingly (for most) «Red» Texas produces more large-scale solar energy than «California»

Anyone can guess why?

«Economics has a habit of winning out over politics and ideology» (FT, 2024)

Even though Texans might want more drilling, financial incentives disrupts these views



2. What drives ESG investments? Think Trump 1.0

- Trump already announced he would quit Paris agreement during his first term (and he did)
- No domino effect was registered, instead many countries even doubled down their financial commitments – China in particular took the chance to strengthen its climate leadership
- Today IEA estimated the market for green tech to be around \$2T by 2035
- China has a huge surplus capacity in batteries, Evs and solar panels
- Similarly, Europe has all interest in fuelling this market to stay competitive



2. What are the drivers of ESG investments?

- The question comes naturally and gives headaches to many academics: why would someone invest in ESG? Is money the driver or is it something else?

2. ESG drivers - recent evidence (Giglio et al, 2025)

- Giglio et al (Journal of Financial Economics, 2025) provide very interesting evidence
- Respondent: (around 2000 answer per wave), \$684k invested on average with Vanguard
- Why would you invest in a ESG stock?
 - No specific reason: 48%
 - Hedging: 22%
 - Ethical choice: 24%
 - Expected returns: 6%
- High heterogeneity levels exist among perceived motives for ESG investing

2. ESG drivers - recent evidence (Giglio et al, 2025)

- Between mid-2021 and late 2023, investors on average expected 10-year return on an ESG investment to **underperform** the market by about 2.1%/year
- From a portfolio allocation perspective, financial considerations are an important driver of ESG allocations for all groups of investors, including those who answered ethical or hedging to the previous question.
- At the same time, ethical investors indicate that they hold some ESG investments even when they expect negative excess returns -> non-financial considerations play a role alongside financial performance

Agenda

- 3. What are the latest legislative developments?

3. The Omnibus Proposal – A Turning Point for ESG disclosure?



Among the several issues haunting the development of sustainable finance, data disclosure is probably the most relevant



Data user (investors, asset managers,..) want more, higher quality data



Companies, instead, push for lower mandatory disclosure requirements, leaving more disclosure to the would-be sustainability leaders



This debate is going on since the early 2020s and this issues is exacerbated by the increasing number of regulations released during the years



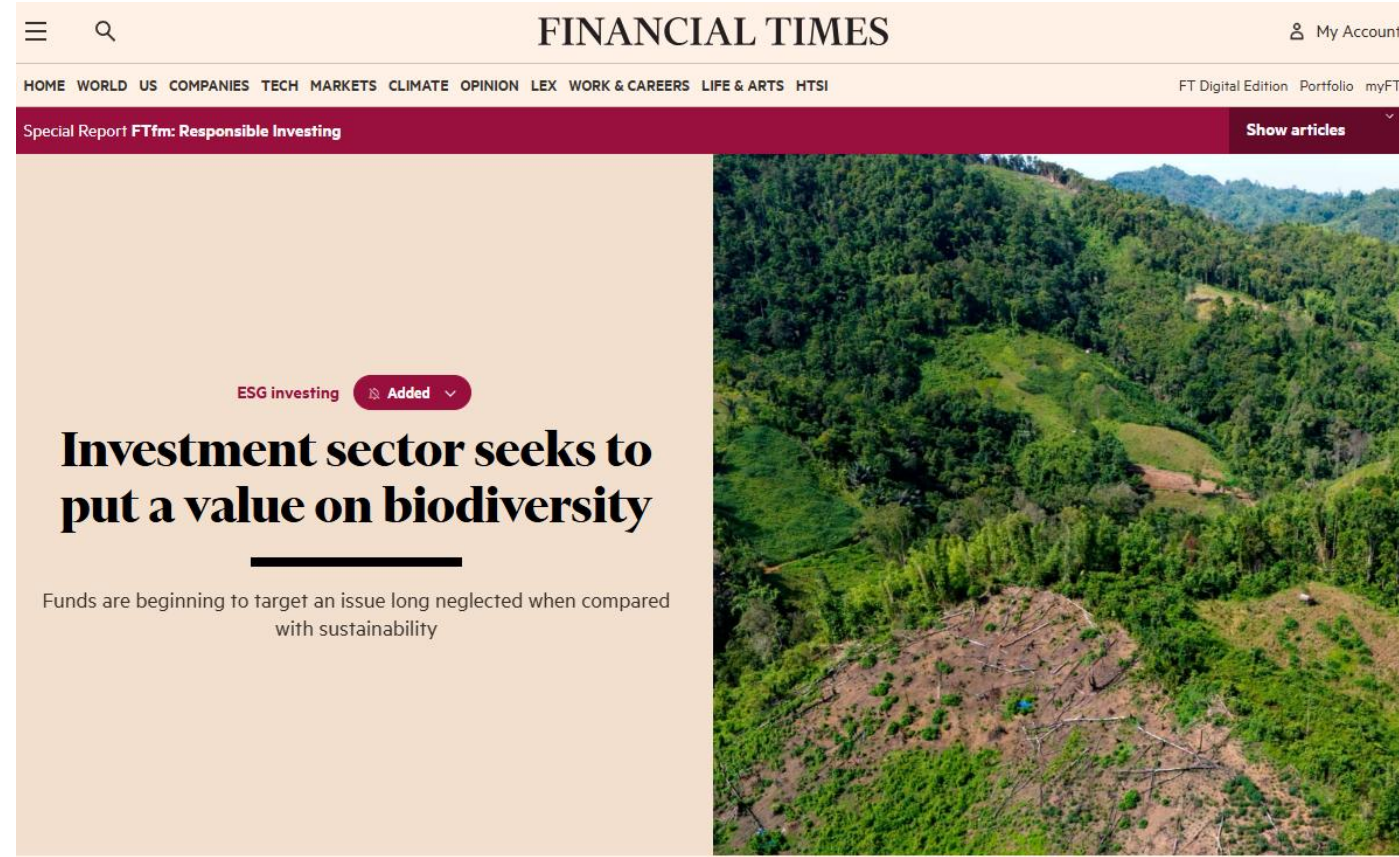
In february 2025 the EU Commission released the «Omnibus» proposal to streamline this context

4. Biodiversity Finance & COP Rome Developments

- Biodiversity as a financial risk
- Rome COP 2024 Highlights:
 - - New biodiversity credit markets launched
 - - Mandatory biodiversity disclosures for corporations
 - - \$200B biodiversity finance goal

4. Is biodiversity an issue?

- More than 1mn species worldwide are at risk of extinction and the species loss rate is around 1000 times higher than what it would normally be
- Biodiversity systems are complex and their services are extremely difficult to price – how would you price the value of pollination?



4. Is biodiversity an issue?

- \$58tn of the global GDP is moderately or highly dependent on nature
- This means that biodiversity and nature risks can have a substantial impact on a firm's operations and, subsequently, stock prices
- Think about the relationship below:











Biodiversity loss -> reduced pollination -> reduced crop yield -> reduced profit/increased solvency

4. What can finance do?

- At COP 16 in Colombia and Rome several delegates from financial sector attended to study how to de-risk nature
- Biodiversity funds globally are offering a way to hedge biodiversity-related risks
- Investments include regenerative agriculture, plastic alternatives or operations that aim to reduce their negative impact on biodiversity increasing resource efficiency or improving supply lines
- Biodiversity finance amount to \$208B a year – still short to the \$ 700B needed to reverse biodiversity by 2030

What magnitude are we talking about?

- The figure shows some examples..
- JBS -> 7.7M fines for exploiting deforested areas
- Bernard Matthews->\$20B loss in brand value for mismanagement of avian influenza in its facilities

Company	Sub-sector	Event	Costs	Risks exposed	
				Physical	Transition
	Specialty chemicals	Since 2016, its US facilities have released toxic per- and polyfluorinated substances, or 'forever chemicals', into watercourses*	At least \$10.5 billion in legal liabilities, layoffs		
	Grain and oilseed milling	Reported** to have sourced palm fruit from protected plantations in Indonesia, contrary to its sustainability claims	5.5% fall in share price in the 24 hours after the newspaper investigation was published		
	Packaged food	Inadequate biosecurity measures enabled the avian influenza virus to enter its UK facilities in 2007 according to DEFRA***	£20 million (\$25 million) loss of brand value, layoffs		
	Oil and gas exploration and production	Faced legal challenges to protect an endangered whale threatened by oil and gas activities in the Gulf of Mexico****	Legal costs and development delays, which threatened up to \$49.6 million in revenue		
	Container shipping	Discharge of untreated ballast water without authority or adequate reporting spread invasive alien species	\$165,000 in fines		
	Basic and diversified chemicals	Discharged billions of plastic pellets from the wastepipes of its Texas facilities into waterways	\$50 million settlement, \$9.4 billion plant construction suspended		
	Metals and mining – base metals	Polluted water and forests in Indonesia through its disposal of vast quantities of mining waste	18% share price fall in two days after CEO reacted to tighter environmental laws		
	Packaged food – meat products	Repeatedly sourced cattle raised on illegally deforested land in the Brazilian Amazon*****	\$7.7 million in fines, potential loss of \$20 billion valuation gain if US listing blocked		
	Electric transmission and distribution	Sparking transmission lines ignited untrimmed tree branches, leading to a series of deadly wildfires in California	91% share price fall from September 2017 to January 2019, \$5.36 billion settlement		
	Automotive	Planned Berlin gigafactory's extraction of declining groundwater led to court complaint	3.1% share price fall in 24 hours after court complaint, \$5.7 billion facility delayed		

Source: BloombergNEF. Note: Cases correct as of December 2023 publication. *3M did not admit liability in the settlement. **AAK investigation reported by newspaper SverigesNatur. Company noted that sustainable sourcing is important but did not deny allegations. ***UK's Department for Environment, Food and Rural Affairs. Bernard Matthews disputed these allegations in 2007. ****A November 2023 hearing ruled that the lease sale could proceed without further protections for the endangered whale. *****According to Bloomberg

BloombergNEF

4. Conference of Parties 16 (Colombia and Italy)



The first part of COP 16 in Cali agreed to a multilateral mechanism where commercial users of genetic information collected by academic researchers will contribute with 0.1% of their revenues or 1% of their profits to a restoration fund



The negotiations at the COP in Cali did not conclude and the COP was reconvened in Rome in February 2025



The participants at this latest meeting agreed that at least \$200B would be collected by 2030 to restore biodiversity

Conclusion & Takeaways

- Sustainable finance must (and is) evolving to survive
- Actors and regulators are adapting to a transformed global environment, with an interest for sustainability that has changed shape compared to the last 10 years
- New academic evidence gives guidance about the true drivers behind ESG investments, highlighting that non-primary role of financial motives
- The new regulation is becoming nimbler and lighter, with looser requirements for a lower number of companies
- Biodiversity finance is taking the spotlight as the next big risk to manage and hedge

Thank you for listening!
Any question?

Contact: jonathan.tagliatela@unipi.it