



2022 ESG Outlook: Reaching Critical Mass

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The message is clear following the 26th annual United Nations Climate Change Conference (COP26): much work needs to be done—and quickly. It is too early to tell how meaningful the Glasgow Climate Pact will be, but nevertheless, COP26 and its resulting agreements should drive 2022 trends within the investment management industry. The legacy of this conference will depend on whether support for climate change mitigation and adaptation reaches critical mass in 2022. The public and private sectors are tasked with limiting global warming to 1.5°C by achieving incremental milestones outlined in the three landmark treaties. Capital markets should feature more prominently in climate resiliency and sustainable development. As a result, we expect net positive improvements across three themes: data, collaboration, and finance. While these themes have been perennial pillars of responsible investment, they should benefit from strengthening momentum within the asset management industry next year and beyond.

To understand how we might think about these trends at Brandywine Global, we evaluate these trends through a macro lens. Contextualizing these themes at the sovereign level may help us understand the scope and work required to make progress in the real economy. More specifically, evaluating historical sovereign data can show investors where the global economy has been, and what the requisite policies and capital deployment need to be to ensure the longevity of climate change mitigation.

Theme 1: Data and Standardization

Investors do not necessarily need more data providers; we just need standardization and consensus among them. That level of consistency will require extensive coordination across the public and private sectors, particularly from entities that collect and report data, whether they are nongovernmental organizations, government agencies, or corporations.

Reliable, timely, and accessible data will be vital to how our industry analyzes climate changes, assesses where the greatest risks are, and finances solutions. **Figure 1** illustrates this point by showing eight countries where these funding opportunities may lie.

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Top Eight Carbon Dioxide (CO₂) Emitting Countries

Billion metric tons, As of 2018

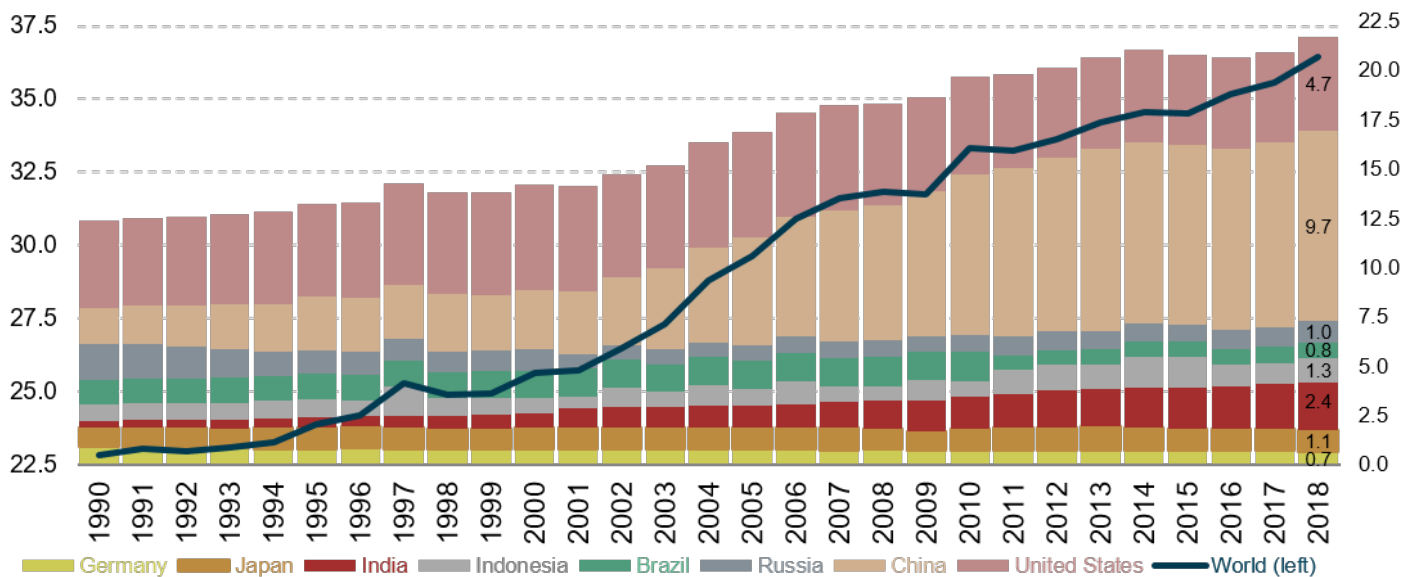
	Country	Emissions
1.	China	9.7
2.	United States	4.7
3.	India	2.4
4.	Russia	1.0
5.	Japan	1.1
6.	Brazil	0.8
7.	Germany	0.7
8.	Indonesia	1.3
	World Total	36.4

Source: Macrobond

These are the world's largest CO₂ emitters relative to the global aggregate total and contain some familiar names: the G3 and BRIC countries of Brazil, Russia, India, Indonesia, and China. This list is unsurprising since a few of them were subject to headlines and scrutiny at COP26. These countries accounted for 60% of the world's emissions as of 2018. For historical context, **Figure 2** shows each country's total CO₂ emissions since 1990 plotted against the aggregate global total.

BRIC and G3 Total Carbon Emissions versus World

World Emissions (left); Country Emissions (right); Metric Tons of CO₂ Equivalent; Bn; 1990 - 2018



Source: Macrobond

The most recent reading in 2018 is nearly four years old, meaning that investors are working off stale data to analyze and solve complex problems. Though not shown in this chart, those data sets also can be incomplete or inconsistent. If investors are to measure progress at the level of the real economy using science-based targets, we must have precise data that is broadly disseminated.

Several organizations measure or estimate greenhouse gas (GHG) emissions at a sovereign level, which means data should be collected, standardized, reported, and widely distributed. The easiest solution might be to mandate a global standard with supranational oversight; it will be a task that requires large-scale coordination.

This task may be easier said than done, but there are successful examples within the private sector. The Taskforce on Climate-related Financial Disclosure (TCFD) is perhaps the gold standard on how companies should track and report on climate risks as part of their financial reporting in a way that is relevant to investment managers. Similarly, the Investment Consultants Sustainability Working Group in the U.K. plans to introduce climate-risk reporting standards for investors in 2022.

These working groups are incredibly helpful, as they create consistency within our industry, across issuers and asset classes, and among our clients. The push for greater standardization in reporting should flow through to data collection, aggregation, and reporting as well, with outsized investor demand driving these changes in 2022.

Theme 2: International Cooperation

Collective investor action, which can manifest itself in different ways, is gaining prominence because of what it provides: economies of scale, effectiveness, and education. Influencing and potentially changing institutional behavior—especially regarding climate change at a national level—requires extensive investor collaboration. Collaboration is a form of influence backed by the credibility of trillions in assets and also serves as a conduit to potentially trillions in funding. **Figure 1** lists the countries where collaborative engagements could be most effective.

Coordinated engagements and industry working groups are not novel, and these concepts should gain more support in 2022. For example, the PRI-sponsored Investor Policy Dialogues on Deforestation in Brazil and Indonesia have grown in membership and impact and should receive additional interest following the 2030 deforestation moratorium pledges

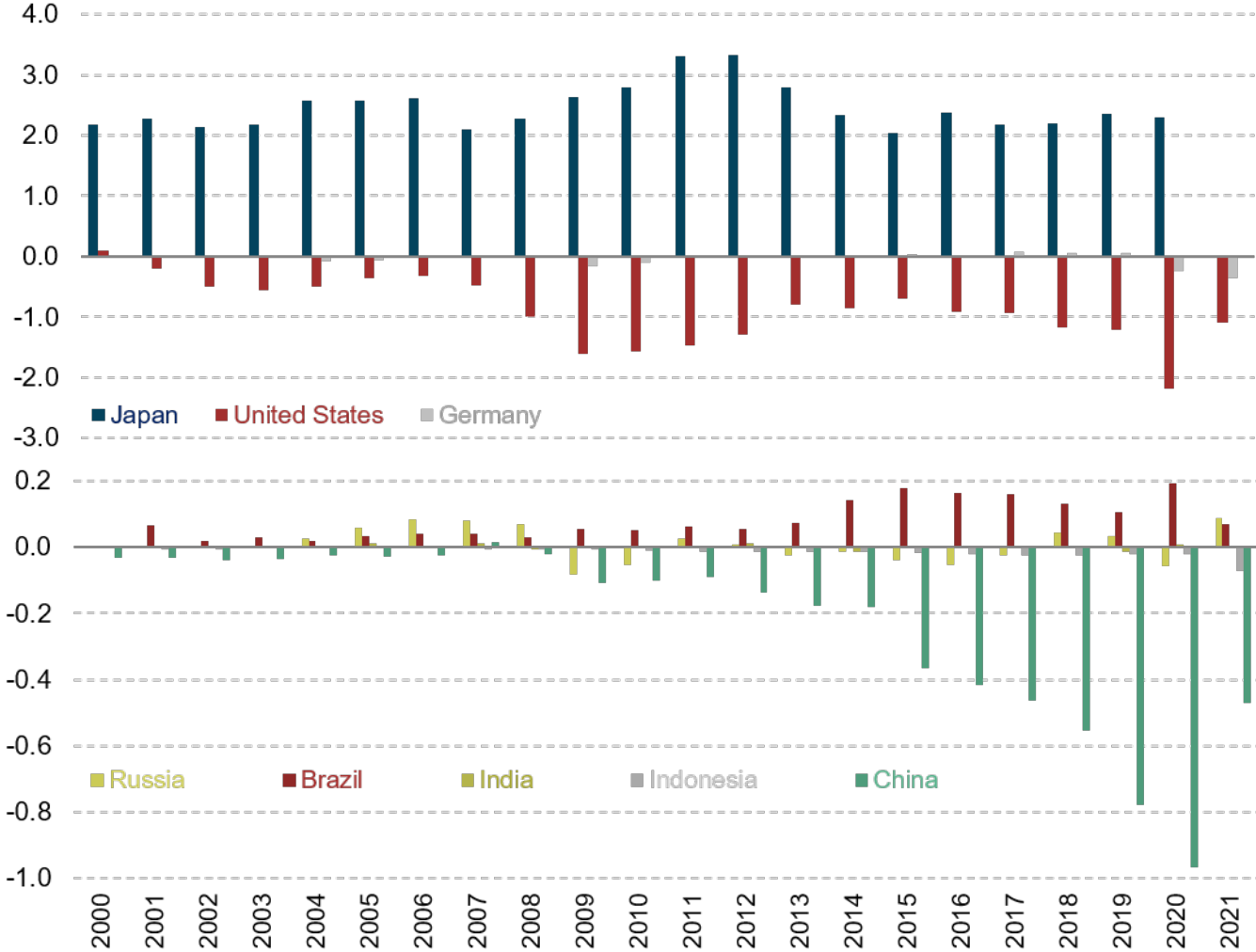
made at Glasgow. The Net Zero Asset Managers Initiative currently represents over \$50T assets under management.

For investors, these groups offer the value of tapping into a vast network of global investors committed to generating research, sharing best practices, and working together to address sustainability risks and influence remediations. By partnering with investors, government officials and supranational agencies can evaluate and advance pragmatic solutions to funding climate projects. Financing will likely come from both the public and private sectors.

Theme 3: Financing

Since climate risk and its effects are so pervasive, funding solutions should be thematic and targeted. **Figures 3 and 4** explain why climate solutions should be financed through a combination of private funding, fiscal spending, and government debt issuance.

3 G3 and BRIC Government Budget Balances
USD trillion; 2000-2021

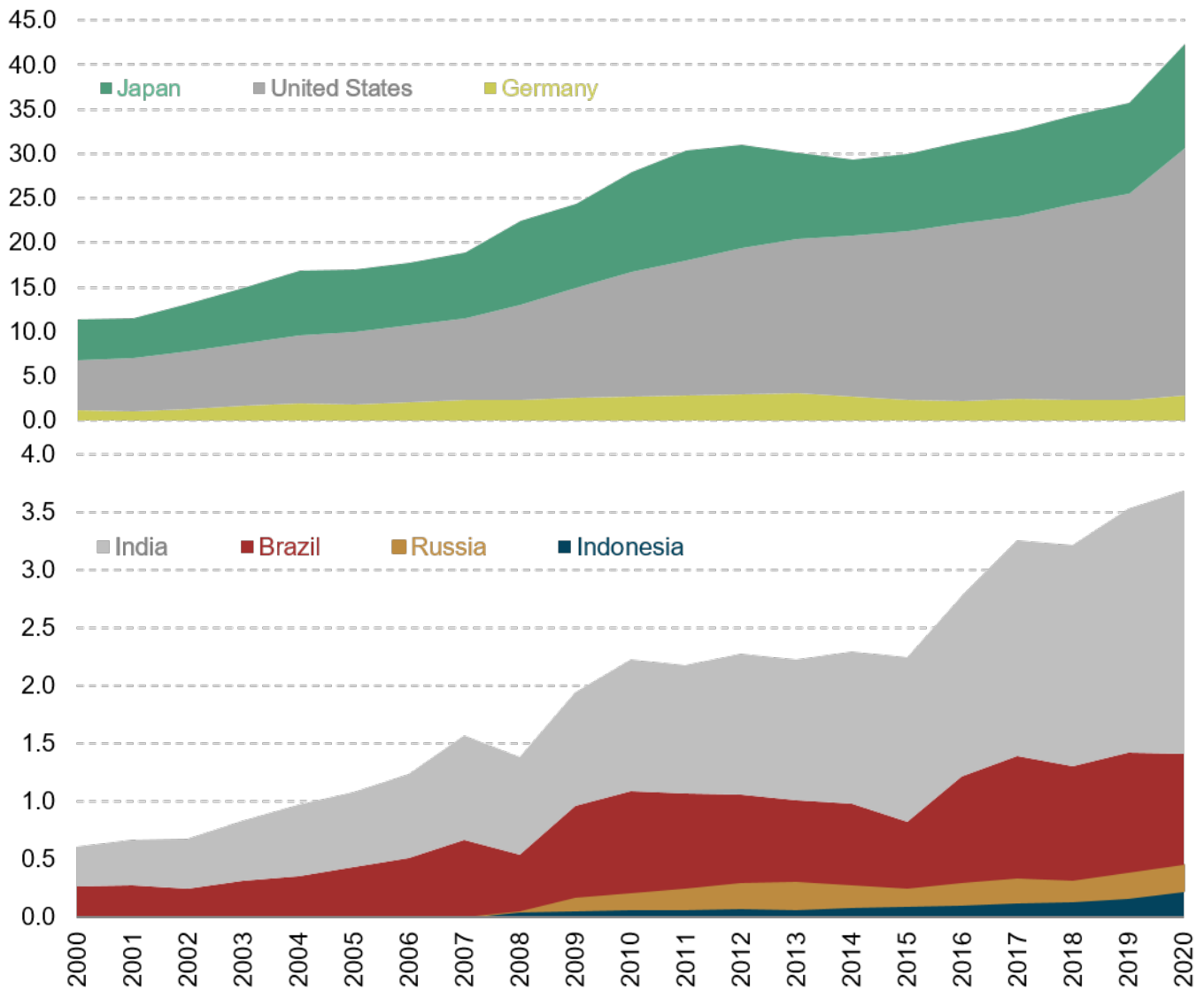


Source: Macrobond

With budgets already stretched by unprecedented demands, it is imperative for investors to work with government officials to ensure the right, cost-effective solutions are in place for countries to reduce climate risk. This need will be especially acute for countries that fund state-owned energy and utility companies, which are leading contributors to country-level emissions. These countries already have significant capital requirements and will need even more to

mitigate climate risk.

4 G3 and BRIIC Government Total Public Debt USD trillion, 2000-2020

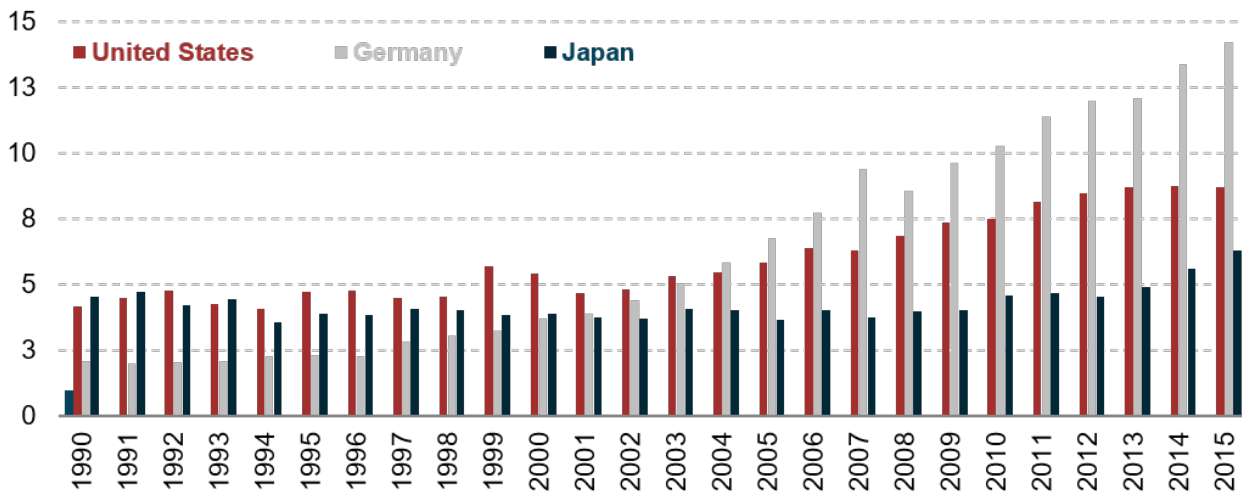


Source: Macrobond

Since total outstanding public debt is substantial across the G3 and BRIIC countries, government bonds should be *one* lever to finance climate-related projects, not *the only* solution.

In a post-pandemic world of scarcity, deploying massive capital to halt or reduce the effects of climate change should be selective, at least in the short term. With the looming 2030 goal to reduce carbon emissions by 50% (using the baseline year of 2019), **Figure 5** may point to one of the most impactful opportunities deserving funding: transitioning to renewables.

G3 Renewable Energy as % of Total Final Energy Consumption Ex. Energy Producers %, 1990-2015



Source: Macrobond

Starting to fund the transition within the G3 could be a logical place to direct capital over the next few years. These countries derive a maximum of only 5%-13% from renewable sources despite generating a significant amount of GHG and CO₂ emissions from energy use. As an aside, the same data for the BRIIC countries was too unreliable to make a recommendation here.

Funding the G3 transition *should not* come at the expense of BRIIC, though. Headlines from India continually warn of dangerous air quality resulting from decades of burning fossil fuels to support a growing economy and population, with no relief from policymaking or innovation in sight. Therefore, large, developed countries must also live up to their financial commitments to aid emerging economies in this venture, though the forms of aid may change over time. The near-term hope is that the G3 transforms their aging and expansive infrastructures and shares that innovation and pricing power with the BRIIC countries and other emerging markets.

Theme 4: Generating Momentum in the U.S.

Once an unlikely candidate, the U.S. may facilitate the tipping point for climate action. Climate change has been a politicized and controversial topic in the U.S., divided by party lines and a tension between federal and state policies. Those divides still exist, but the Bipartisan Infrastructure Deal is a constructive signal, as it will fund climate mitigation and resilience projects through \$65 billion in public spending.

However, billions more in lending and corporate bond issuance may be needed to fully transition the U.S. economy to net carbon neutrality before 2050. According to the Climate Bond Initiative, an estimated \$2 trillion/year is needed globally over the next 30 years to adequately fund the global carbon transition. That means the \$1 trillion in cumulative green bond issuance will not be enough. The wave of green financing should extend into 2022, and we will remain selective about participating in new issuance as valuations stay rich and greenwashing risks remain. Longer term, we think the market will reward issuers with the most transparency to ensure proceeds are actually being used to fund sustainability initiatives.

There are many ways to include the U.S. private sector in the transition. One way is to call upon the four largest banks to increase financing toward green, sustainability, and social projects. The opportunity is immense since these four banks are also the largest lenders to the fossil fuel industry. At the same time, they run noticeably smaller books for green finance. This underutilized area of finance also creates the chance for institutional investors to collaboratively engage with U.S. banks to participate in *building* back better—a model of development for emerging markets as they plan to simply *build* better.

Looking Ahead

It seems counterintuitive and perhaps unfair for the U.S. to potentially attract climate finance flows while there are emerging markets with urgent funding needs and greater vulnerability to physical risk. Nevertheless, the U.S. is at the critical crossroads of high emissions and extreme climate risks, but also with access to potential solutions through leadership in technology, entrepreneurship, and finance. Standing at the intersection of capitalism and climate activism is a strange place for the U.S. to be, though perhaps existential threats make strange bedfellows. The U.S. should be tasked with developing the frameworks and tools that eventually drive down the cost of technology and implementation for other countries. If capital flows to where it is rewarded, the U.S. will serve as a litmus test for whether the return on invested capital (or assets) is high enough to maintain support from the private sector. The hope is that climate change action finally reaches critical mass in 2022, due to the support from capital markets, the investment management industry, and governments.

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