BARINGS

— 2022 OUTLOOK —

THE NEW NORMAL COMES INTO VIEW

Climate Change Roundtable

Investors everywhere are facing the reality and urgency of climate change. Our experts discuss where they're seeing the most material effects across public and private markets today—and what they're anticipating going forward.

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Pell: Climate change will likely play an increasingly prominent role in investment processes for years to come. Maureen, where are you seeing the greatest effects across real estate markets in terms of demand and pricing?

Maureen: As concerns surrounding COVID and its knock-on effects have started to wane, climate change has definitely returned to the forefront. In our view, the most immediate impact in the real estate market will be on the demand side, as investors start to redline certain areas they believe are more susceptible to climate change. I think we'll see a greater impact on pricing when investors begin to price in the additional capital costs of renovating buildings to make them more resilient to either physical hazards or costs related to increased regulation. As regulations are enacted, the capital costs of meeting them—or the fines associated with not meeting them—will have to be included in the underwriting and prices of assets. On the flip side, however, I think we'll start to see premium pricing for the most energy-efficient or water-efficient assets that have been built or renovated to be more resilient to climate change.

Pell: Building on the regulatory component Maureen mentioned, Ashwinder—are you seeing anything similar with the financial institutions? Are certain assets essentially becoming uninvestible?

Ashwinder: The regulatory component is definitely on the radar, and it has really started with coal—many banks and asset managers no longer want to finance coal mines or thermal-powered power plants. This has forced the market and regulators to focus on the other legacy exposures that sit on bank balance sheets. The ECB conducted stress tests in 2021 that suggested roughly half of European bank balance sheets are exposed to climate related physical or transition risks. The Basel Committee and Financial Stability Board are trying to convince national regulators that climate change is a risk to financial stability. This will encourage banks to improve their physical and transition risk related disclosures and incorporate climate stress testing scenarios into their risk management processes. Ultimately, the banking sector's ability (or inability) to make these improvements, and to meet both short and long-term goals, will have an impact on their fixed income and equity valuations.

Pell: Clive, looking across the equities landscape, are there certain industries that are feeling the pain from investors' growing exclusion lists?

Clive: It should come as no surprise that thermal coal and oil are the two industries that are being impacted the most. If you're going to decarbonize the global economy, it's a negative for thermal coal. To set the scene, thermal coal is responsible for 40% of greenhouse gas emissions, despite accounting for only 27% of the world's energy supply. Something clearly has to change there—but as we saw at COP26, eliminating thermal coal from a global power matrix is a difficult issue for many countries to tackle. Globally, many countries rely heavily on thermal coal and are hesitant to step away from it, despite an understanding that they need to do something. For this reason, innovative solutions in infrastructure and financing will be necessary, and we're going to need a more pragmatic approach to the speed of divestment than we have at the moment.

"In our view, a country shouldn't be penalized for its exposure to climate risks. On the contrary, we have the responsibility as investors to support efforts to build infrastructure, and to help ensure these countries have the policies, strategies and financing in place to improve their resilience."

Pell: Nick, are you seeing any impacts in the private markets, particularly given the increasing attention on carbon emissions?

Nick: Given the focus on achieving net zero carbon emissions globally by 2050, much of the capital addressing climate change will likely continue to flow to decarbonization and energy-efficient investments. And that makes sense, as these are the largest opportunities we have to reduce carbon footprints. However, by some estimates, up to 15% of current carbon emissions can't be eliminated through these strategies by 2050. Therefore, to honor net zero pledges, we need to offset this percentage of our footprint by sequestering carbon in assets like forests, and using technologies like direct air carbon capture. The market for voluntary carbon offsets was set to address these unavoidable emissions. While this market is currently valued around $1 billion, we expect it could reach $30 to $40 billion by 2030. And we're underwriting investments designed to capture value as the market experiences this growth.

Pell: Kawtar, is there anything you would add from a sovereign perspective?

Kawtar: One big question we're grappling with at the sovereign level is how to deal with the countries that are currently industrializing using coal or other less energy efficient techniques. As we detailed in a recently published paper, several key considerations come to mind for us as we think about how to assess the carbon intensity of sovereigns, particularly of developing economies. The first is whether a country is doing enough to reduce its carbon intensity, and how that carbon intensity is being measured. The second is whether a country is contributing positively to the global decarbonization process, such as by investing rainforest conservation efforts. The third is whether a country is building its resilience to major climate change disasters. In our view, a country shouldn't be penalized for its exposure to climate risks. On the contrary, we have the responsibility as investors to support efforts to build infrastructure, and to help ensure these countries have the policies, strategies and financing in place to improve their resilience.

Pell: Maureen, on the real estate side, do you have the data you need to make decisions and potentially mitigate some of the risks you highlighted earlier?

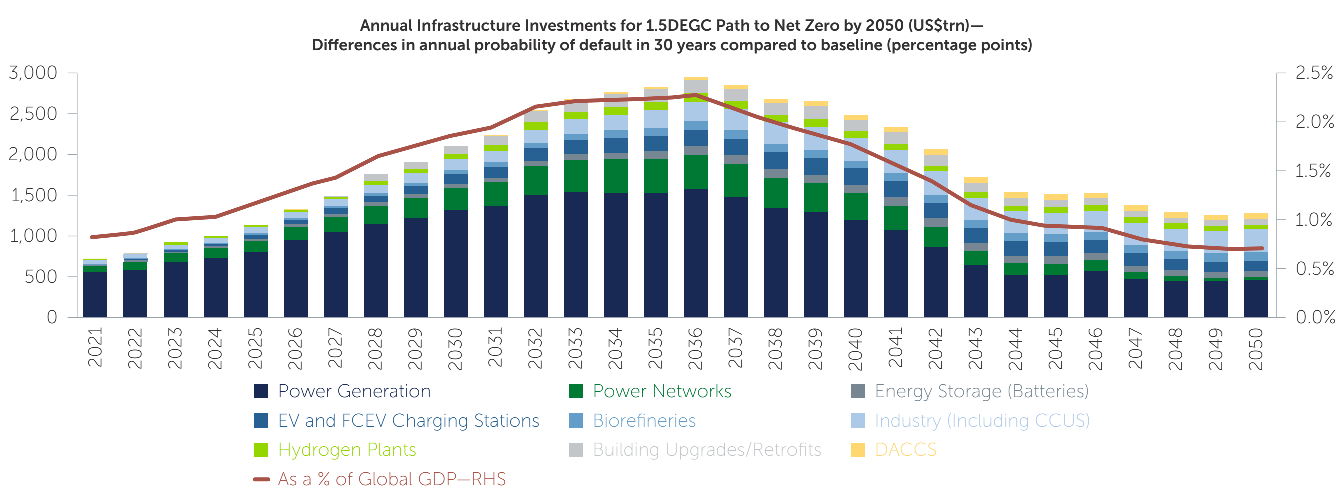
Maureen: Although data in the real estate space can be hard to get given that tenants often have direct control over things like utility bills, our energy engineering team has been focused on gathering data for a long time. Every one of our asset business plans includes an ESG performance dashboard. This includes information about energy and water consumption, as well as emissions performance information—for instance, where we have solar or wind panels. We also track our investment in capital projects to reduce our energy usage, and include the return on investment derived from those capital projects.

Additionally, our engineering team recently created a framework to assess the net zero pathways for assets in one of our portfolios. It's an initial framework, and will be improved as we gather more data and review more individual assets, but it will be incredibly important if we're going to meet the 2050 goals.

Pell: Clive, is the market misjudging anything from your perspective?

Clive: The biggest misconception in the markets, in my view, is that we can solve climate change overnight. But we cannot—the scale of the challenges we're facing is enormous. In order to transition to a clean energy matrix by 2050, we are essentially tearing down and rebuilding a power network that has been built over the last 100 years to run on fossil fuels. For instance, wind and solar account for 6% of global energy today, and to get to net zero by 2050, they'll have to be close to 70%. What many people seem to misjudge is the cost and scale of the raw materials needed to aid this transition. As an example, an offshore wind farm needs at least five times more steel than an onshore fossil fuel power plant producing the same amount of power. Yet, steel is viewed as a bad carbon emitter, a bad actor. We essentially have a catch-22 scenario, where a sector perceived as a bad actor is actually critical to building the infrastructure for a low carbon, renewable power future.

Figure 1: Significant Investment Needed to Achieve Net Zero

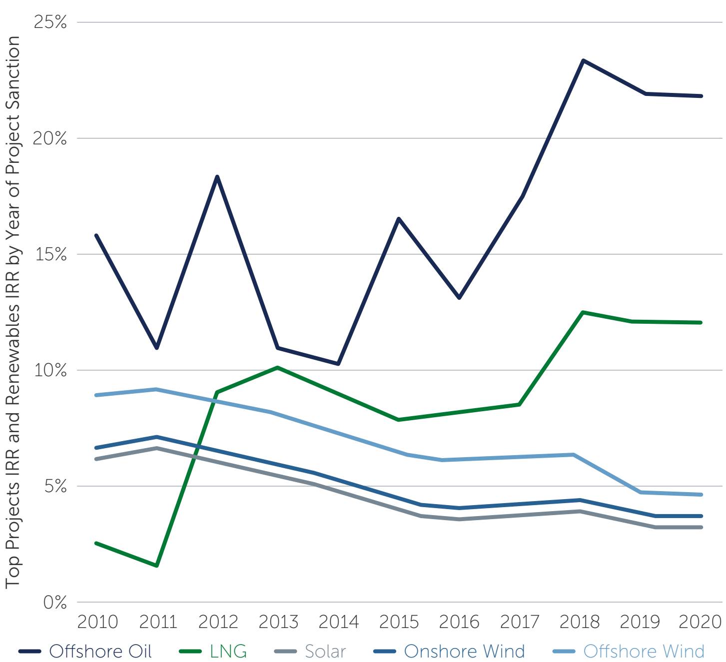


Source: Goldman Sachs Investment Research. As of September 24, 2021.

Pell: Nick, do you have similar questions on the private equity/real assets side? What are the knowns and unknowns from your perspective and what aren't investors talking about today?

Nick: The biggest unknown is whether countries and companies that are pledging themselves to net zero policies will be able to adhere to them over the next 30 years, through the ups and downs of economic cycles. However, the cost of abandoning our efforts in the long-term is much greater than the short-term economic costs that we'll be forced to pay. And we've seen consumers increasingly dedicated to addressing climate change, both with their votes and their purchases. We're also seeing a divergence of project IRRs between traditional hydrocarbon investments and renewable projects. One point of comfort is that, in the absence of a global compliance market for carbon, capital markets are pricing in higher costs of carbon, which bodes well for energy efficiency, decarbonization, and carbon offset investments longer-term.

Figure 2: The Spread Between IRRs for Oil & Gas and Renewable Projects is Widening as Costs of Capital Diverge



Source: GS Carbonomics. As of November 2021

Pell: Kawtar, what's missing from the conversation on the sovereign side?

Kawtar: There are many questions that need to be figured out sooner rather than later. For instance, there's the question of data. If we can't get a good handle on how much a certain sector pollutes, how can we accurately calculate a country's overall carbon footprint? There is also the question of carbon leakage. When large multinational corporates in developed markets ship the most polluting parts of their value chain to developing countries, who should account for the carbon emissions—the producing country or the consuming country? With regard to emerging markets in particular, transitional dynamics represent another big question. Many developing countries have high population growth rates, high poverty, and high inequalities. This means they can't afford not to grow, or to grow less. So, how do they transition to a more energy-efficient and greener economy? For many of them, it's simply not possible to leapfrog from a polluting development path to a greener development path.

Pell: Now that we've talked about some of the risks, where are we seeing opportunities emerge?

Nick: In terms of opportunities, we're focused primarily on decarbonization, energy efficiency, and carbon offset investments. With respect to carbon offsets, we've developed carbon projects on our timberland assets, and we're looking to grow exposure across those assets. We see asymmetric return profiles there that look attractive. We're looking to produce carbon offsets and make investments in service companies that finance carbon offsets and businesses that trade carbon offsets. We're also looking to increase our exposure to water rights in the U.S. Southwest, as climate change decreases sustainable water supplies available there, and we're looking at water utilities to invest instead. Going forward, we expect to benefit from increased storm water collection and treatment needs. On the energy side of things, we're invested in renewable energy assets, and looking to increase our exposure to assets and services that enable the transition to a low carbon world, like battery storage.

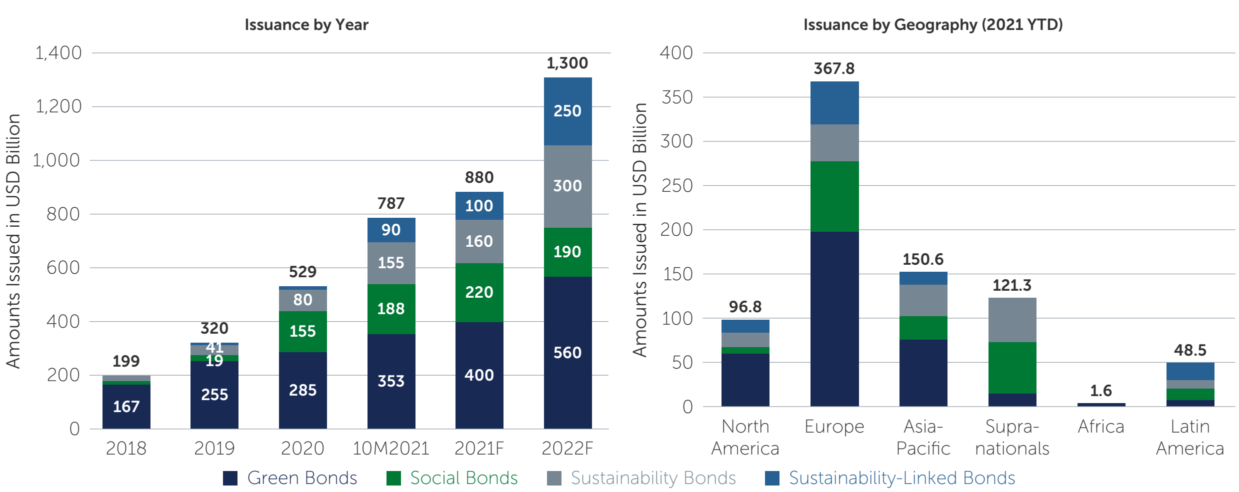
Pell: Maureen, what opportunities are materializing across the real estate landscape?

Maureen: We invest in a fair amount of ground-up development, as well as value-add renovation and/or redevelopment projects. Our opportunities there are to build the most efficient properties, both from an energy standpoint and from a water standpoint. There are also opportunities to build above building code to deal with sea level rise at the time of development. For example, we recently had a ribbon cutting for 10 Fan Pier, an office building in Boston. It's a state-of-the-art LEED Platinum building, and should provide opportunities for us to garner premium pricing in the future. I've also mentioned that our engineering team developed the framework for net zero pathways for assets. It's an important step to consider capital investment in efficiency items in order to reach that net zero goal by 2050. We see it as an opportunity because it means we're investing wisely in assets that will hold their value, and that will be more valuable to future buyers and investors because we have done the work now. Ultimately, our exits should garner premium pricing on those assets as well.

Pell: Ashwinder, what is the appetite for green bonds, and do you think that will continue on its current trajectory?

Ashwinder: In many ways, 2021 was a watershed year for supply, with total ESG-labeled issuance reaching $3 trillion. Within the corporate segment of that supply, two sectors—financials and utilities—account for nearly 70% of that. However, while there are clearly opportunities for these two sectors, they will also face greater scrutiny. Obviously, there have been questions around green washing, and I would expect more investor scrutiny there, as well as more regulation. It's also interesting to look at inflows into dedicated ESG funds. In Europe, close to 65% of new bond inflows went into ESG labeled funds. Even in emerging markets, close to 25% of bond inflows went into ESG labeled funds. The laggard was North America, where only 4% of inflows went into ESG labeled funds. So clearly, there's a huge potential and a huge market for that to grow. In 2022, for instance, supply of ESG labeled debt could exceed $1.3 trillion.

Figure 3: ESG Bond Issuance May Reach $1 Trillion in 2022



Source: Climate Bonds Initiative, Unicredit.

Pell: Kawtar, is there a similar concept from the sovereign side?

Kawtar: Sovereign issuers have also been increasingly active when it comes to green and ESG-related bonds. In our space, although it is very important to pay attention to green washing, we must also be aware of where the money is going and how it is being used. As part of our sovereign engagement efforts, we are also thinking about more innovative products in this space, such as resilience bonds. Essentially, these are bonds whose terms can change depending on the occurrence of certain climate-related events. For instance, a resilience bond from a country in the Caribbean may have an insurance option embedded in it, which could provide some liquidity relief—and potentially help the country avoid a default—while it's dealing with economic, social, political or humanitarian emergencies in the aftermath of a hurricane.

Pell: Clive, from an equities perspective, do active managers have more tools in their toolboxes when it comes to climate change-related opportunities?

Clive: Definitely. Engagement, in a word, is the key component here. Anyone can read a company's climate impact report, sustainability report or annual report. But we find that by taking the time to engage with a company one-on-one, we can educate ourselves on the subtle challenges and opportunities that exist when it comes to our investments. If you think about port infrastructure in the Pilbara in Australia, for example, or the big copper mines in the Atacama Desert, they're all facing stresses—from rising sea levels to a lack of access to water. However, companies are putting innovative solutions in place, whether that's infrastructure that can be raised in the face of rising sea levels, waterless processing technology, or floating solar panel farms. And these are the types of solutions that investors may not be aware of just from reading an annual report. From that perspective, engagement can be a distinct advantage, as it can provide a thorough understanding of the challenges and opportunities inherent in investing in companies that are dealing with, and trying to be part of the solution to, climate change.

This conversation with adapted from a recent panel discussion. You can watch the full webinar here or listen to the podcast here.*

*Full Podcast URL: https://www.barings.com/viewpoints/2022-outlook-series-investing-through-climate-risk

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