COMPANIES ARE IN A RACE TO NET ZERO – BOFA RESEARCH ANALYSTS SAY MORE THAN 9 OUT OF 10 HAVE A CLEAR PLAN TO GET THERE

This is a redaction of a 32-page BofA Global Research report published on March 8, 2022

Key Takeaways

• Three forces are shaping the push to Net Zero – policy-makers, shareholder activism, and stakeholder capitalism

• BoFA Global Research surveyed their analysts: 92% of covered companies count Net Zero as a driver of decision making

• We expect a ‘ladder’ of complexity in corporate strategies: mitigation, transformation and financial engineering; near-term pain (higher capex & costs, lower revenues) will be offset by long-term stability

For the times they are a-changin’
In 2019, countries representing 16% of global GDP had Net-Zero commitments. That cohort has grown to 136 countries accounting for 90% of GDP and 88% of emissions. We can thank policy-makers responding to electorates, shareholder activists and the rise in stakeholder capitalism for this remarkable expansion. Geopolitics, such as the current conflict in the Ukraine, is likely to strengthen the resolve to wean off hydrocarbons.

Ubiquity & speed of corporate strategies for Net Zero
We surveyed our analysts on decarbonization efforts for the 3,400 firms covered globally (market cap of USD$79tn). Our findings were striking: corporate Net Zero strategies are ubiquitous: responses representing 92% of covered companies count Net Zero as a driver of decision making. Moreover, timelines are ambitious. Eleven percent aim to achieve Net Zero by 2030, quadrupling to 41% by 2040 and further doubling by 2050.

We expect a ‘ladder’ of complexity in strategies
Our analysts sorted corporate strategies into three categories; predominantly mitigation (56%), followed by transformation (25%) or financial engineering (14%). We also identify specific tools ranging from offsets to near-shoring, automation and digitization. We believe firms are likely to embark on a ‘ladder’ of complexity where they start with low friction options like energy efficiency and offsets and add complex solutions over time.

Near-term costs offset by lower risk premia, long-term stability
Today’s economy is largely based on hydrocarbon consumption. Pivoting to alternatives represents an undertaking as significant as the industrial revolution itself. In the near-term, our analysts believe this will result in lower revenues (-5%), higher R&D (+$1.2tn) and capex (+$2.4tn), lower profits (0-14%) and returns (0-100bps). We caution that the path to Net Zero has many ‘unknowns’ and that costs are likely to rise as companies add higher friction solutions. Near-term pain will, however, be offset by long-term stability.
Exhibit 1: For the times they are a-changin’

The push to Net-Zero

BofA Global Research Analysts report 92% of 3,400 companies covered globally with a total market cap of USD75tn have zero carbon emissions as an integral part of decision-making process. Almost three-quarters aim to reach Net-Zero by 2050!

Source: BofA Global Research, Net Zero Tracker (zerotracker.net)
Net Zero – a non-discretionary priority for corporates

Our civilization is drenched in hydrocarbons. While this has enabled remarkable progress, it has come at a cost to our environment. By some estimates, the Earth is 1.1°C warmer than the pre-industrial era and carbon emissions are at unprecedented levels. Net-Zero emissions, or carbon neutrality, is the offsetting of all greenhouse gas (GHG) emissions released in the course of human activities. Broadly, it aims to reduce carbon emissions as much as possible and then neutralize the residue via carbon removal.

Corporate strategies are a critical but under-examined aspect of the Net-Zero debate. While the near-term costs of companies moving to Net Zero will be unappealing to some, the reality is that it has become a non-discretionary priority and such strategies are ubiquitous. Moreover, near-term costs are likely to be offset by longer-term sustainability.

Three broad forces shaping the push to Net Zero
We attribute commitments to Net-Zero targets to three broad forces: 1) policy-makers responding to electorates; 2) shareholder activism; and 3) the rise of stakeholder capitalism. Geopolitical developments also have a role to play. The current conflict in Ukraine, for instance, is likely to strengthen the resolve to wean off hydrocarbons.

- **Push by policymakers.** Extreme weather events and a growing scientific consensus has made climate change an electoral issue (there are ‘green’ parties of some significance in more than 90 countries at present). The political response to this growing electoral issue has been striking. In 2019, countries representing just 16% of global GDP had Net-Zero commitments. In the span of three years that figure has grown to include 136 countries, representing 88% of global emissions and 90% of global GDP.

- **The rise of shareholder activism.** Shareholders have always played an important role in shaping corporate behavior. For shareholders, ESG has evolved from being a nice thing to do to becoming a business imperative. This is reflected in the USD103tn in AUM that are invested along the Principles for Responsible Investment (UNPRI).

- **Pivot to stakeholder capitalism.** Management’s historical focus on maximizing profits are evolving into a stakeholder model that is focused on shareholder interests, as well as a broader community of consumers, employees and the state. This incorporates a triple bottom line – profits, people and the planet.

Capitalism isn’t sustainable unless it is something that belongs to all stakeholders - Japanese Prime Minister Fumio Kishida

Ubiquity & speed of corporate Net-Zero strategies
BofA Global Research surveyed their fundamental equity analysts who cover ~3,400 companies globally with a total market capitalization of USD79tn to learn more about corporate Net-Zero strategies. The findings were striking.

- **First, Net Zero strategies are ubiquitous.** While we were aware of the growing interest in ESG among corporates, we were struck by the ubiquity of Net-Zero strategies. Our analysts report that 92% of the 3,400 firms covered by BofA globally have zero-carbon emissions as an integral part of their decision making processes. These companies have a total market capitalization of USD 75tn.

- **Second, we found that corporate timelines are ambitious** (and accelerating). We found companies representing 11% of our coverage footprint aim to achieve Net Zero this decade, quadrupling to 41% by 2040 and further doubling to 76% by 2050. While this timeline is challenging enough, we believe that corporates are likely to follow the lead set by policy makers (as well as pressure from shareholders and industry leaders) by accelerating these timelines.

- **Third, we found that Europe leads, while Asia lags and the Americas brings up the middle.** Among regions, Europe leads with a fifth of companies committed to Net Zero this decade and a striking 96% by 2050 (the residual 4% have Net-Zero strategies, but don’t have a target date by which to implement them).

Americas and Asia follows with more than 70% aiming for Net-Zero status by 2060. Drilling down further, we find that a third of the market cap in Greater China (China/Hong Kong/Taiwan) have not stipulated a deadline yet, while both ASEAN (14%) and Australia (14%) have the highest proportion of market cap that is not implementing a Net-Zero strategy as of yet.
Exhibit 2: Race to Net Zero
Our analysts expect 92% of 3400 companies under our coverage globally totaling market cap of USD75tn plan to achieve zero carbon emissions

Source: BofA Global Research. Note: Based on BofA Global Research coverage. Numbers in parenthesis represent market cap of companies covered by BofA. 5% of the companies by market cap have not articulated a strategy to manage this transition, nor do they appear to be making attempts to progress towards zero carbon.

Ladder of complexity in corporate strategies
Our analysts sorted corporate strategies into three categories; predominantly mitigation (56%), followed by transformation (25%) or financial engineering (14%). We also identify specific tools ranging from offsets to near-shoring, automation and digitization. We believe firms are likely to embark on a ‘ladder’ of complexity where they start with low friction options like energy efficiency and offsets and add complex solutions over time.

Strategy of mitigation is the transition to Net-Zero emissions by reducing the carbon intensity of a company’s products/processes or by using mechanisms such as carbon offsets. It is arguably the low-hanging fruit, and understandably, the most commonly adopted approach – our fundamental analysts estimate that 56% of our global coverage by market capitalization prefer mitigation strategies.

Transformative strategies seek to develop novel products/processes by investing in transformative research and development (R&D) initiatives to manage the transition to Net Zero. This innovation-driven approach is perhaps the best option, but it is time-consuming and involves significant outlays that tend to be front-loaded. Our analysts believe that such methods are being preferred by 25% of coverage.

Financial engineering is the overhaul of existing business models to achieve carbon neutrality. It involves the restructuring of companies such as exiting carbon-intensive businesses, transitioning/diversifying towards businesses with low carbon emissions, buying stakes in clean energy companies via M&A etc.

Exhibit 3: Preferred strategy for achieving net-zero by global sectors (% of market cap)
Mitigation remains the most preferred strategy to achieve carbon neutrality

Source: BofA Global Research. Note: Based on BofA Global Research coverage.
On a more granular basis, our analysts have cited a number of specific tools that companies appear to be using include 1) enhancing energy efficiency, 2) switching to clean energy or renewables, 3) re-shoring or near-shoring of supply chains, 4) carbon offsets, 5) automation, 6) digitalization, 7) use of low-carbon raw materials such as packaging improvements, 8) carbon capture and storage (CCS) and 9) restructuring.

**Exhibit 4: Strategies that corporates are employing to navigate towards their goal of net-zero**
Enhancing energy efficiency, switching to clean energy or renewables, carbon offsets and re-shoring/near-shoring of supply chains are most commonly used strategies.

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Source: BofA Global Research

**Near-term pain, offset by long-term stability and gain**
The global economy is largely based on the consumption of hydro-carbons. Shifting away from that basic building block is breath-taking in scope and quite possibly one of the most significant undertakings since the industrial revolution.

We asked our analysts to estimate the near-term cost of this transition. We caution that the path to Net Zero has many ‘unknowns’ and that cost estimates are likely to rise as companies layer on more complex, higher friction solutions to meet their objectives.

- **Net lower revenues.** Our analysts estimate our global (ex-financials) coverage to lose $4tn, just over a tenth of current revenues to carbon mitigation efforts, but expect to recover half of that from new opportunities during the time period the companies expect to achieve net zero.

- **Higher R&D costs.** New business opportunities arising from the transition to Net Zero will rely on new products/processes. Our analysts believe that incremental R&D costs will cumulate to USD1.2tn (ex-financials) over the next five years.
• **Higher Capex.** Structural changes in business models typically tend to be associated with sizeable capital expenditures. The transition to Net Zero is no exception. Our analysts estimate incremental capex of USD2.4tn (ex-financials) over the next five years.

• **Lower profits and returns.** Unsurprisingly, the combination of lower near term-revenues and higher near-term costs will result in margin compression for corporates. We expect operating profits (ex-financials) to shrink by 0-14% across sectors and returns on capital (ex-financials) to decline by 0-100bps.

**First movers will be beneficiaries:** While these near-term costs will be unappealing to some, the reality is that Net Zero has become a non-discretionary priority for companies. Moreover, near-term costs are likely to be offset by longer-term sustainability. First or early movers, within sectors, are likely to be beneficiaries. They will capitalize on new opportunities, insulate themselves from the vagaries of hydrocarbon costs, have access to cheaper capital than their peers and benefit from improved brand value and greater customer loyalties.

**Exhibit 5: Estimating the financial impact of Net Zero on corporates**

US$2.4tn of extra capex over the next 5years, operating profit to fall 5% (0 to 14% by sector) and RoCE down 40bps (0 to 100bps by sector)

**Known-unknowns: Scope 3 'terra incognita'**

While companies have grown adept at Scope 1 (direct) and Scope 2 (emissions from purchased electricity, heat, etc.) controls, Scope 3 emissions are less well understood. These are “all other emissions that occur in the value chain of a company outside of Scope 1 and 2” and could be 10x the magnitude of Scope 1 and Scope 2 emissions combined.

Tellingly, most companies do not measure or disclose Scope 3 emissions. Only 6% of Russell 1000 firms that have pledged Net Zero, disclose their supply chain emissions and incorporate this into their emissions reduction plan. This information gap represents a wildcard as companies could be underestimating the effort required to achieve Net Zero.

Our conversations with companies and analysts highlight the need for global standard setting, consumers being “willing to pay”, and acts of bravery from first movers within sectors. The rewards that we have seen via multiple expansion for companies that have been early and aggressive are encouraging.

**What are Scope 1, Scope 2, and Scope 3 emissions?**

Scope 1 emissions: Direct emissions from owned or controlled sources.

Scope 2 emissions: Indirect emissions from the generation of purchased energy.

Scope 3 emissions: All indirect emissions in a company’s value chain (upstream and downstream).

E.g., Company X reported Scope 1 emissions related to fuel combustion from its trucks; Scope 2 emissions related to purchased electricity for its offices; and Scope 3 emissions related to employee commuting, business travel, and use of sold products.

Sources: Greenhouse Gas Protocol, EPA
Compared to a few years ago, companies have zipped up the learning curve in measuring and managing direct and purchased energy-related emissions. But the disclosure landscape reveals a disturbing gap: the paucity of information around Scope 3.

Based on ICE ESG data of US large cap companies (Russell 1000), 58% of companies disclose Scope 1 emissions, 55% disclose Scope 2, and many of these companies have made strides to set goals to reduce or obliterate these sources of emissions. Then there is Scope 3, which only 37% of companies disclose. And the problem is, Scope 1 and Scope 2 emissions are just the tip of the iceberg. Scope 3 is the iceberg.

Exhibit 6: Only 37% of Russell 1000 companies disclose Scope 3 Emissions
% of Russell 1000 companies with disclosures

Exhibit 7: 42% of Russell 1000 companies have a GHG reduction target
% of Russell 1000 companies with GHG reduction goal and Net Zero target

Sources:

Candace Browning Platt
Head of BofA Global Research

Savita Subramanian
Head of U.S. Equity & Quantitative Strategy

Ritesh Samadhiya, CFA
Equity Strategist

Vikram Sahu
Head of APAC Research
Disclosures

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