Hedge Fund Perspectives

Neuberger Berman Alternative Investment Management Team

While we witnessed no shortage of volatility in 2020, markets stayed resilient and ended the year on a euphoric note. With equity markets trading at all-time highs and bond market spreads at all-time tights, upside in on-the-run public risk assets may be limited, while risk appears to remain to the downside, particularly with potential headwinds from further COVID-19 spread in the developing world, slower-than-anticipated vaccine rollout outside the U.S., and potentially rising interest rates. We believe that investors can be well served by diversifying exposure into more off-the-run and uncorrelated assets that are both experiencing structural tailwinds and gaining traction among investors. In this publication, the Neuberger Berman Alternative Investment Management team identifies hedge fund strategies that it believes could be appealing in a unique and changing environment.

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In this anthology, we identify strategies we believe can be key elements of a portfolio in the current and coming market environment. Carbon credits are an example of an asset that can offer attractive uncorrelated returns with structural downside protection, while benefitting from multiyear societal and political tailwinds. In addition, while integration of environmental, social and governance (ESG) and socially responsible investing (SRI) principles has been a major theme across the traditional asset management space in recent years, the trend has accelerated among hedge funds that can benefit not only from investing in companies with strong ESG principles, but also by taking an active role in helping companies add value through implementation of some of these principles. Finally, accounts-receivable financing has picked up momentum among credit hedge funds seeking to earn attractive yields with a limited risk profile as they serve to fill the financing gap left by banks shying away from lending to middle-market companies under duress.

We hope you find this publication useful as you assess portfolio strategy in the coming months. Please contact your Neuberger Berman team with any questions.

Articles

Opportunistic Investing: Carbon Credits

For medium-duration investors, carbon credits can offer attractive uncorrelated returns with structural downside protection, while benefitting from multiyear societal and political tailwinds.

The premise for establishing a price on carbon, or carbon credits, derives from the globally orchestrated effort to curb the negative externalities associated with climate change. In the past 10 years, the number of policies aimed to reduce carbon emissions nearly tripled—from 19 policies in 2010 to 61 in 2020[1]—highlighting growth and widespread adoption across regions, countries and states. Carbon pricing policies tend to differ by structure, but commonly aim to incentivize corporations and consumers to reduce their carbon footprint and seek cleaner, less pollutive alternatives.

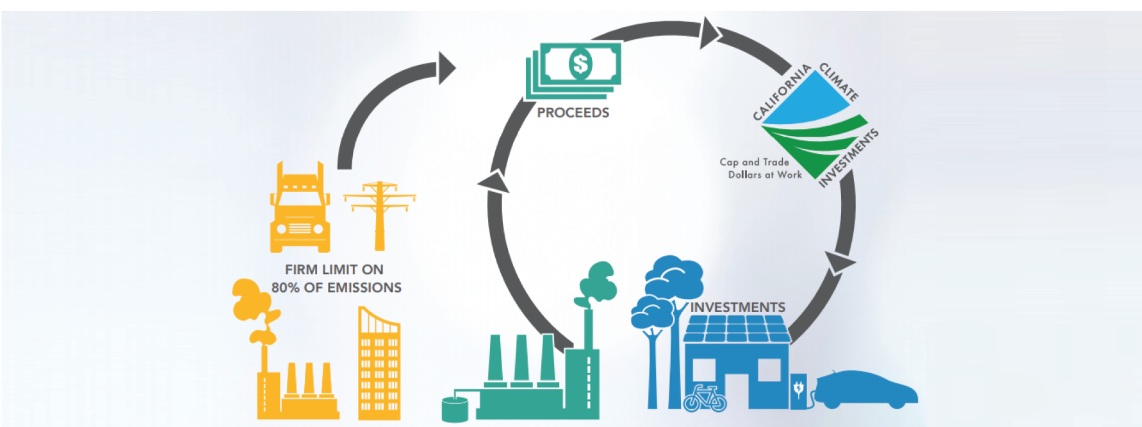
While carbon has been an investable asset class for decades, we believe the market's expansion and adoption by new policymakers creates opportunity. We find the structural design of California's carbon market to be attractive, particularly its features that assist in mitigating principal losses and reducing carbon credit supply from the market. Therefore, our thoughts will primarily be focused on the California "cap-and-trade" market.

Cap-and-Trade

Policymakers have employed two core approaches that involve carbon pricing initiatives: (1) an explicit tax on carbon emissions and (2) a tradable market vis-à-vis cap-and-trade. The cap-and-trade approach is relevant to this discussion given its investable nature, liquidity and transparent pricing features. Cap-and-trade markets have experienced significant growth; in 2019, the major markets traded in excess of $200 billion.[1]

A cap-and-trade market establishes a legal limit (i.e., a "cap") on carbon emissions per industry, and allows underlying companies to purchase carbon credits to pollute above the limit. The legal and regulatory framework established in a cap-and-trade market facilitates a marketplace where low emitters can sell credits to high emitters in order to meet the annual obligation, thereby establishing a price. Companies with lower abatement costs, or the cost of switching to alternative, less pollutive operations, are therefore incentivized to maximize emission reduction and sell credits to companies with higher abatement costs. As the price of carbon increases, policymakers hope that companies will rotate to environmentally friendly operations as the cost of meeting their annual carbon credit obligation approaches abatement costs. However, it is important to note that the abatement cost for high emitters (e.g., cement, mining, metals, refining) is significantly higher than the current cost of carbon credits. This spread indicates that high emitters will continue emitting carbon until economically incentivized to reduce; until then, firms will continue to buy carbon credits until the price of carbon is multiples from current prices.

CAP-AND-TRADE ILLUSTRATION



Source: California Air Resources Board.

[1] Source: CFA Institute, *Climate Change Analysis in the Investment Process,* 2020.

The revenue generated by the cap-and-trade market is used to invest in disadvantaged neighborhoods and clean technology. Since 2014, California has generated $6.1 billion in revenue that has funded renewable energy, affordable housing and environmental restoration projects, among many others.[2] It is important to note that the penalty for noncompliance is set at four times the amount of the actual obligation; compliance has been nearly 100% since the program was established.

In California, companies can acquire carbon credits through quarterly state-held auctions, trading in the secondary market, and/or free credits issued by the state. Companies receive free credits to assist in meeting their annual obligation; however, the amount declines year-over-year, forcing companies to source credits in the marketplace. The legal framework of reducing supply from the market is likely to cause prices to increase over time, which takes aim at accelerating emission reduction.

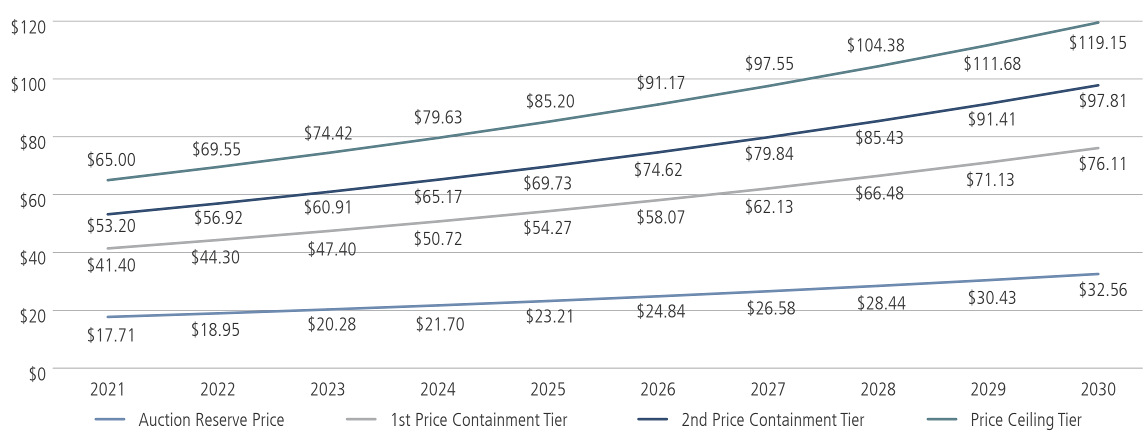
As of California's most recent quarterly auction in August 2020, over 95% of auction volume[3] was from companies that have a legal mandate to purchase carbon credits (i.e., nonfinancial speculators). Auction volume tends to fluctuate by quarter but has averaged just under 90% in favor of compliant companies, highlighting the barriers to entry for financial speculators such as hedge funds and banks. In order to purchase physical carbon credits, the California Air Resources Board, the government agency that regulates the state's cap-and-trade market, requires registration with the state and limits buying capacity to $200 million. As a result, many large investors have been unable to participate in this market, which as investors is an attribute that we find particularly attractive.

What's the Price of Carbon?

The State of California, in concert with the Western Climate Initiative,[3] designed their cap-and-trade market to meet the legal target of reducing carbon emissions to 40% below the 1990 levels by 2030.[4] The target was signed into law in 2006, when the state senate passed the California Global Warming Solutions Act. Policymakers acknowledge the ambitious nature of the target—calling on the state to double the rate of emissions reductions—but remain committed to implementing additional regulatory actions if needed.[5]

The price of carbon is a lever that policymakers choose to pull in order to economically incentivize corporates to reduce carbon emissions. In California, policymakers structurally designed the market to go into supply shortage, driven by a fewer number of free carbon credits issued each year and the annual cap declines, causing upward pressure on the price of carbon. With supply in precipitous decline, we anticipate that the total carbon market will go into annual deficit (i.e., demand for carbon credits outstrips new issue supply) in the medium term. Further, quarterly state-held auctions, the primary way that new issue supply hits the market, are subject to an increasing floor known as the annual auction reserve price (annual ARP). The floor price accretes by inflation (measured by CPI) plus 5%, which sets carbon prices on a trend higher.

CALIFORNIA CARBON CREDITS: PRICE MECHANICS



Source: Price Containment levels in 2021 from California AB-398. Forecast auction reserve prices and price containment levels assume 2% CPI inflation.

[2] Western Climate Initiative, Inc. is a 501 non-profit corporation that administers the shared emissions trading market between California and Quebec, as well as separately administering the emissions trading market of Nova Scotia.
[3] Source: California Air Resources Board, *Factsheet.*
[4] Source: California Air Resources Board, *California's 2017 Climate Change Scoping Plan.*
[5] Source: California Air Resources Board, *Factsheet.*

The carbon market in Europe, the EU Climate Trading System, has similar long-term targets to California, with an emission reduction target for 2030 of at least 55% of 1990 levels. However, the price of carbon is determined entirely by the market. Economists and policymakers continue to believe that current carbon prices are too low and do not promote adequate incentives. According to the High-Level Commission on Carbon Prices,[6] a group of economists supported by the World Bank, the price of carbon is too low, suggesting that carbon prices of at least $40 – $80 per ton by 2020 and $50 – $100 by 2030 are required to effectively reduce emissions in line with temperature goals in the Paris Agreement.[7] Further, the IEA Sustainability Development Scenario[8] states that carbon prices ranging between $75 – 100 per ton are needed in order to comply with the Paris Agreement. Based on current California carbon credit prices, the price would need to increase by two or three times to meet these levels.

Economists aren't alone in calling for higher prices—Wall Street has weighed in on the price of carbon as hedge funds and other financial speculators see opportunity in the market. Morgan Stanley, for example, recently published research that forecasts higher carbon prices. The bank "increase[d] [their carbon] price forecasts given the greater than expected ambition in [emission] reduction target for 2030 as momentum continues. [The bank] expects [cap-and-trade] to remain a primary policy tool to implement the climate agenda, with significant implications for [carbon credit] pricing."

While there's certainly variability on what the price of carbon should be, consensus calls for a higher price to adequately incentivize corporations to limit and reduce carbon emissions. Further, current prices suggest the penalty, or the cost of emitting carbon, is too low to change corporate behavior. Societal and political pressure to combat climate chance continues to mount, which we believe is a trend that will persist over the medium term.

Investment Merits: California's Carbon Credits (CCAs)

In July, we anticipated that California Carbon Allowances could benefit from positive supply/demand trends as well as structural features that help mitigate principal losses. In accordance with California's emission reduction target, the cap-and-trade program mandates companies that emit carbon—above 25,000 metric tons per year—to acquire CCAs to meet the annual emittance obligation.

Positive supply/demand trends stem from a declining amount of free allowances issued to corporations per annum. In 2021, the reduction of free allowances doubles, creating a supply shock to the market. In our view, the reduction in supply coupled with high abatement costs relative to current CCA prices should increase demand, paving the way for higher CCA prices.

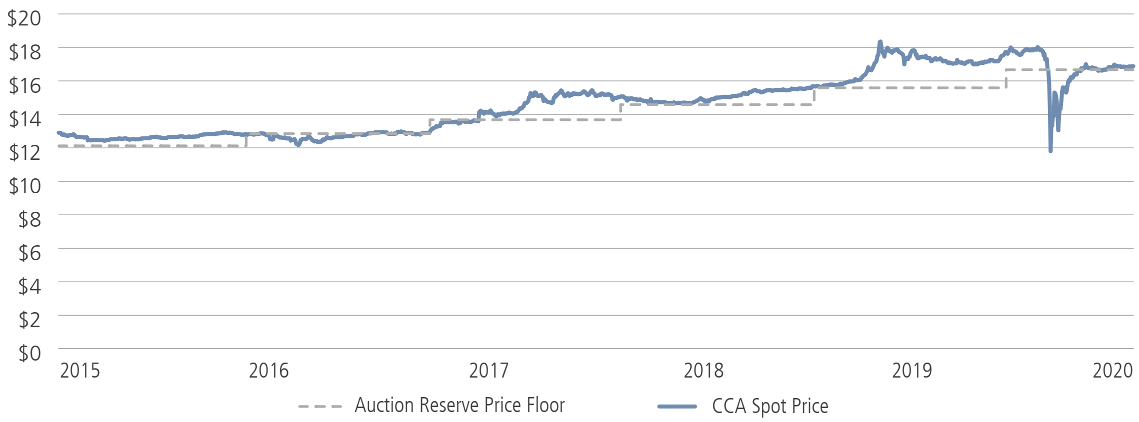
In our view, the implementation of an auction reserve price, offering a floor valuation for CCA prices, in addition to price containment tiers, further sets the CCA market on a path to higher prices. If the secondary market trades below the ARP, new auction CCAs will go unsold and market participants must buy CCAs in the secondary market, ultimately driving up CCA prices until they meet the ARP. There have been two instances where the secondary price of CCAs has dipped below the ARP: (1) in 2016 when a legal challenge to cap-and-trade arose (which has since been defeated); and (2) in March 2020, when the COVID-19 pandemic impacted the global economy. We believe the two instances highlight both how the price mechanics work and the downside mitigation offered. In March 2020, overleveraged financial speculators (a small percentage of the CCA ownership base) were forced to sell positions as financing providers sought additional margin. This dynamic caused the secondary price to sharply decline. The next auction in May was undersubscribed as corporations could source CCAs cheaply in the secondary market (trading at a discount to the auction reserve floor price); this ultimately caused the price to rise above the ARP, which is where it currently trades.

[6] The Commission's objective is to identify indicative corridors of carbon prices that can be used to guide the design of carbon-pricing instruments and other climate policies, regulations and measures to incentivize bold climate action and stimulate learning and innovation to deliver on the ambition of the Paris Agreement and support the achievement of the Sustainable Development Goals.

[7] The Paris Agreement has an objective of "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels." Energy production and use is the largest source of global greenhouse gas (GHG) emissions, meaning that the energy sector is crucial for achieving this objective.

[8] Taking an all-fuels, all-technology approach, the IEA advocates policies that enhance the reliability, affordability and sustainability of energy. It examines the full spectrum of issues including renewables, oil, gas and coal supply and demand, energy efficiency, clean energy technologies, electricity systems and markets, access to energy, demand-side management, and much more.

SECONDARY PRICE OF CCAs/AUCTION RESERVE PRICE
U.S. Dollars



Source: California Air Resources Board. Data through August 20, 2020.

We became more enthusiastic about California's carbon credits during the third quarter of 2020. Since then, CCAs have traded higher and we remain constructive going forward given favorable supply/demand features and continued support from state policymakers to achieve emission reduction targets.

We continue to view this regulatory/legally driven view of carbon credits as a compelling opportunity to potentially earn uncorrelated asymmetric return by taking advantage of a market that was designed to go into a supply shortage. California is encouraging lower emissions with rising CCA prices, as evidenced by the annual reduction in free allowances, forcing entities to buy in the secondary market, and price mechanics that accrete higher over time. We believe that the CCA market will likely go into a supply shortage in early 2022, causing increased demand and paving the way for higher prices.

See disclosures at the end of this publication, which are an important part of this article.

ESG and Sustainability Strategies Gain a Foothold in the Hedge Fund Universe

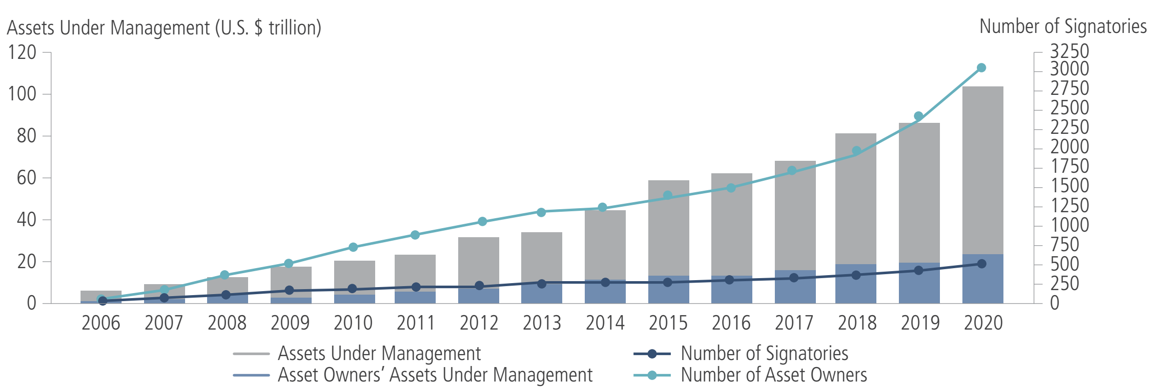
Hedge funds have been relatively slow to adopt environmental, social and governance (ESG) investment approaches, but are quickly coming up to speed.

Integration of ESG and responsible investment principles has been a major recent theme across the traditional asset management space, with momentum growing significantly over the last five years. Hedge funds, and dedicated investors in hedge funds, have been somewhat slower in the adoption of these practices within their firms and processes, but the trend continues to move upward and to pick up pace. Implementation across the hedge fund industry has taken several forms. As hedge fund investors place greater importance on firms and strategies that can demonstrate meaningful engagement with these principles, it is becoming not just "the right thing to do," but increasingly commercially necessary to invest the resources to meet clients' expectations around responsible investing in a robust and authentic manner that helps to better identify risk and opportunity. Furthermore, we believe that the increased proliferation of hedge fund products that have more explicit sustainability objectives is beginning to open new opportunities for combining these exposures into more diversified solutions for investors.

Broad Growth of Responsible Investing and ESG Integration

The continued growth of asset managers committing to the UN Principles for Responsible Investment (PRI) is demonstrative of this trend. The broad principles of the PRI are to: incorporate ESG issues into investment analysis and decision-making; be active owners and incorporate ESG into ownership policies and practices; seek appropriate disclosure on ESG issues from entities invested in; promote acceptance and implementation of the principles within the industry; work to enhance effectiveness in implementing the principles; and report on activities and progress toward implementing the principles. As of March 2020, the number of signatories had grown to 3,038 (2,701 individual asset managers and 337 service providers), representing a cumulative $103.4 trillion of assets under management.[1] The collective AUM represented by PRI signatories increased by 20% over the most recent one-year period, and the number of investor signatories by 29%. This growth can be viewed as a bellwether for the trend of companies formalizing their commitment to integrating responsible investing into their firm structures and investment processes. Within the hedge fund industry, a 2018 survey by AIMA indicated that approximately $59 billion in hedge fund assets were allocated to responsible investments out of a survey of managers representing $550 billion in assets.[2] While this is not insubstantial, with total hedge fund assets under management estimated at $3.3 trillion as of Q3 2020, it represents a small section of the overall market.[3]

UN PRI SIGNATORIES REPRESENT A SUBSTANTIAL CAPITAL PRESENCE



Source: UN PRI, *Annual Report 2020.*

[1] Source: UN PRI, *Annual Report 2020.*
[2] Source: AIMA, *From Niche to Mainstream: Responsible Investment and Hedge Funds, 2018.*
[3] Source: Hedge Fund Research, *Global HF Industry Report Q3 2020.*

We believe there are several core reasons that likely contributed to the hedge fund industry being behind the wider asset management space in terms of responsible investing and ESG integration. First, firms that direct larger amounts of assets under management are typically overrepresented among UN PRI signatories. As of March 2020, while the overall membership share of signatories among U.S. asset owners is 14%, this figure rises to 61% among the largest asset owners, as defined by PRI.[4] Hedge fund firms are typically small compared to broader asset managers in terms of assets under management and headcount, and typically have fewer resources. In addition, as investors have worked their way through their portfolios, first starting with "low-hanging fruit" of public equities, then fixed income, then private equity and debt, the focus has now made its way to hedge funds and other asset classes that were historically deemed to be more difficult to implement from an ESG perspective.

Second, the hedge fund industry is quite heterogenous, with a vast spectrum of investment approaches and asset class focuses. One-size-fits-all policies are, as a result, not practical. The applicability of ESG and responsible investing integration may be significantly different across strategy type. In this article, we consider the different ways in which hedge funds firms have sought to apply these principles and considerations within their strategies.

Third, there has been evidence of change in investor demand and expectations within the hedge fund space, albeit at an early stage. A recent survey by Morgan Stanley Capital Introductions indicated a steady pick-up in investor interest in ESG and sustainability-driven hedge fund strategies over the last four years. The percentage of respondents either considering spending more time on ESG or sustainability within hedge funds or actively planning to use or using such strategies rose from 35% in Q1 2018 to 54% in Q2 2020.[5] While interest in SRI/ESG hedge fund strategies appears to be tilted to larger hedge fund investors, there seems to be an increase in interest across all investor sizes. For the largest hedge fund investors, defined as having over $5 billion of AUM invested in hedge funds, 83% of respondents in Q2 2020 are considering or currently use ESG or sustainable hedge fund products, up from 75% in Q2 2019. For the smaller category of hedge fund investor, defined as under $500 million of total invested assets, the comparable figure is 55% for Q2 2020, a lower figure but representing a significant shift from the 27% recorded in Q2 2019.[5] It is worth considering that these responses refer to hedge fund products that are dedicated to sustainability objectives, which form a very small but growing part of the universe currently.

How Hedge Funds Have Integrated ESG Considerations

For each hedge fund firm or strategy, specific ESG criteria may differ in relevance, making comparisons between different strategies or levels of integration difficult to make. For example, a buy-and-hold type long-biased single-name equity strategy may typically find more relevance in the application of ESG criteria than a managed futures trader. There is no specific definition or agreed set of standards for ESG or sustainable hedge fund products in terms of the depth or breadth of integration. The points below cover some of the more common ways of integrating these considerations into hedge fund portfolios.[6] We also introduce Neuberger Berman's ESG Integration framework, which helps to classify different ways hedge fund managers may incorporate ESG considerations into the investment objectives and investment processes.

[4] Source: UN PRI, *Annual Report 2020.*
[5] Source: Morgan Stanley Capital Introductions, *Hedge Fund ESG/Sustainability Overview Q3 2020.*
[6] For illustrative and discussion purposes only.

NEUBERGER BERMAN ESG INTEGRATION FRAMEWORK

AVOID	ASSESS	AMPLIFY	AIM FOR IMPACT
Excluding particular companies or whole sectors from the investable universe, including application of the firm's thermal coal exclusion policy	Considering the material effect on the risk and return of ESG factors on investments alongside traditional factors in the investment process	Focusing on 'better' companies based on ESG factors that are expected to have a material effect on the investments' risk and return	Seeking to intentionally generate positive social and environmental impact alongside a financial return

- **Avoid**

  Socially Responsible Investing: Socially responsible investment strategies predominantly concern filtering stocks based on socially responsible considerations. This can be implemented on a negative basis, i.e., excluding stocks or even entire industries from portfolios, or positive basis, i.e., looking to identify companies that score highly on social responsibility metrics. Single-stock and industry exclusions are among the longest established approaches to ESG implementation going back several decades. In fact, Neuberger Berman's first use of avoidance screens in long-only equities portfolios dates back to the 1940s. Common areas for exclusions within single stocks or credits include arms manufacturing and tobacco firms, while more recent efforts have typically concentrated on more environmentally relevant areas such as carbon-intensive traditional energy firms.

- **Assess**

  ESG Investing: This approach does not seek to systematically filter and exclude or include specific stocks or credits. ESG investing as we define it focuses on the incorporation of material ESG factors into the investment process in a way that influences the investment analysis and decision-making. Once material ESG factors are an integral part of the equation, portfolio managers may have adjusted views on certain companies (within the single-name equity and credit universes) or even on industries, countries and other groupings. Often, these ESG factors or views are translated into quantitative scores to help in relative evaluation. These scorings could then affect the portfolio positioning in each investment, with instruments that score highly across the range of criteria generally increased in their weightings, and those that score poorly, reduced (and vice versa for short positioning in a portfolio). The investment manager will make decisions regarding to what extent the ESG assessments affect the portfolio, and how the characteristics of the portfolio are changed. For example, a single-name equity long/short manager will need to decide whether ESG scoring leads to the portfolio favoring some sectors over others, or whether the process will be implemented in a more granular company-level, relative-value way. Therefore, there can be huge variance in approaches and the weight of importance placed on ESG criteria within this category. We believe the most relevant areas where this approach is found within the hedge fund strategy universe remain single-name equity and credit long/short managers, but ESG investing approaches can also be seen within areas such as global macro, where weightings to particular countries can be adjusted relative to a set of country-level ESG criteria.

- **Amplify**

  Thematic Investing: Portfolios are broadly long-biased and dedicated to providing capital to specific themes relevant to ESG or sustainability criteria, such as strategies focused on the climate-related energy transition, which may include renewable energy companies. Approaches typically focus on purchasing equity capital or corporate bonds in individual companies looking to access capital markets. Inflows to these instruments could broadly reduce the cost of capital for individual businesses involved in sub-industries benefiting from sustainability-related tailwinds. A smaller subset of managers trade long-biased strategies in carbon emission credit/allowance markets across various locations globally, such as California Carbon Allowances, the EU's Emissions Trading System, or the Regional Greenhouse Gas Initiative in several U.S. states. The aim of these markets is to effectively regulate and reduce overall carbon emissions without the offset of lower economic growth, by distributing allowances to companies that will most effectively use them through the market mechanism. These markets tend to be structurally bullish due to agreements around the reduction in supply over multiyear periods, leading to opportunities for traders to engage in the market in a long-biased but more active approach than buying and holding.

- **Aim for Impact**

  Impact Investing: This approach has some similarities to thematic investing but is typically more explicit in seeking positive social or environmental outcomes for people and the planet in an intentional and measurable way. At a minimum, it is understood that certain companies that are likely to produce negative social or environmental outcomes are avoided. Some strategies target companies that are currently deemed to have a positive social or environmental impact through their products or services and meet specific criteria based on the fund strategy's impact framework. Other strategies are focused on investing in companies that have the potential for positive social or environmental impact but are not being managed to their full potential, employing a momentum style approach to the area. This approach to ESG investing requires investment mandates that are at the longer-term and lower turnover end of the spectrum, with portfolios that are either long-only or heavily net-long biased.

In addition to the "Four As" of ESG Integration, cutting across all categories is the varying degree in which the investor can seek to influence ESG-related outcomes. Engagement is a primary tool that investors have to apply this influence, and in the hedge fund universe, in particular, this can be a distinguishable way ESG is incorporated into the investment strategy.

Activist Investing: The use of shareholder activism in hedge fund investing is long established. By evaluating companies on relevant ESG criteria and identifying areas of strength and weakness, hedge fund investors with equity stakes in companies can use this influence to drive improvements across these metrics internally, raising awareness of areas of weakness and working alongside companies to ameliorate them. This would typically be relevant to the current shareholder activist hedge fund universe. Certain activist strategies identify themselves as "impact investing" on the basis that they drive measurable positive social or environmental outcomes for people and the planet.

Across these four broad approaches to incorporating ESG considerations, managers have the ability to leverage third-party ESG data providers, employ resources to create and maintain an internal framework and scoring process, or use a combination of the two. One broad challenge to hedge fund managers being able to effectively implement ESG criteria in their portfolios in a decision-useful manner has been the provision of third-party data. In what is a relatively new and fast-growing space, and one where significant barriers exist in accessing data from companies in a standardized and usable format, the structuring of data and even the ratings themselves for particular companies can show little resemblance to each other across data providers. A CSRHub study cited by Kepler Research compared ESG ratings data for companies in the S&P 1200 from both MSCI and Sustainalytics, two of the most prominent third-party ESG data providers, and found a correlation of 0.32.[7] This can be compared to the correlation between credit ratings from Moody's and Standard & Poor's for the same companies of 0.90. While company disclosures remain poor and ESG ratings across providers lowly correlated, this creates additional challenges for managers seeking to implement these criteria within their portfolio management processes. Additionally, the data is commonly backward-looking, self-reported or stale. We have started to see instances of hedge fund managers seeking to apply data science and AI to gain an edge in real-time ESG or sustainability-related data to help inform their investment strategies.

[7] CSR Hub, cited in Kepler Research, *ESG Investing and Alternative UCITs.*

Creating Diversified ESG and Sustainable Hedge Fund Solutions

We believe the manager universe of hedge fund products that integrate ESG-related criteria into the investment process to some degree is increasing rapidly. As laid out above in the different approaches to implementation within the hedge fund space, strategies can be broadly distinguished by those with ESG or sustainability considerations at the core of their investment objectives, and potentially with claims of ESG as a source of alpha, and those where ESG is an integrated component of the investment process, but in a way that is more standard and expected by investors. Hedge fund managers who are able to demonstrate that they integrate ESG in a comprehensive and robust way may be able to distinguish themselves from the pack as "ESG Leaders." Regardless of the classification along the ESG integration framework, skill and ability to deliver returns will continue to be important drivers of capital flows. Given that we are still in the early stages of ESG implementation in hedge fund strategies, evidence is inconclusive on whether it is possible to improve the expected risk-adjusted return of a portfolio through the implementation of these considerations. Further, given the rapid growth of ESG focus across firms responding to investor inquiry, one must be prudent to be able to discern among managers who are being authentic and robust in their approach to incorporating ESG or sustainability considerations to guard against "greenwashing."

As of Q3 2020, Morgan Stanley identified 45 individual ESG-dedicated hedge fund products in the market, with a large pipeline of additional strategies planned to come to market toward the end of 2020 and in 2021.[8] This figure does not include the much larger number of strategies that have implemented ESG considerations within the investment process of existing hedge fund strategies, but to a lesser and more partial extent. It is evident that the ESG-related universe of strategies is becoming large enough for specialized hedge fund investors to create customized solutions for investors seeking a more diversifying allocation to these hedge fund strategies than a small or solitary number of direct investments. We believe that managed account solutions can also be an appropriate approach for certain investors, given the diversity of weight placed on a range of ESG or sustainability criteria, and the need to manage together with other portfolio parameters. Of course, managed account solutions also offer other significant advantages to investors when creating a specialized portfolio, including increased transparency and control, ability to run the mandate at a different risk level to the commingled product, and the ability to run the strategy to a greater level of operational efficiency from a funding perspective. It is important to partner with a manager that has the resources and capabilities to manage a diversified portfolio with equal rigor on the ESG and sustainability aspects as those described above and understands the nuances of this evolving landscape.

[8] Morgan Stanley Capital Introductions, *Hedge Fund ESG/Sustainability Overview Q3 2020*.

Capital Solutions: Accounts Receivable Factoring and Financing

Current economic stresses and ongoing risks in traditional credits reinforce the potential advantage of accounts receivable financings to debtors and creditors alike.

In the years following the global financial crisis, companies have for the most part had the luxury of raising a large amount of cheap capital in a world with low interest rates and open credit markets. While capital-raising has been easy for most relatively healthy companies, many small and middle-market companies with liquidity issues have found themselves struggling to raise capital. We believe this is largely a function of banks stepping away due to onerous regulations and often shying away from smaller deals that may not move the needle for them. In recent years, alternative lenders have stepped up to the plate, leveraging their expertise to provide flexible capital solutions to middle-market companies in complex situations where the need to act quickly is often paramount.

In today's post-COVID world, the number of companies that have run into liquidity issues has only increased due to economic shutdowns and secular declines across many sectors. With a high amount of debt currently outstanding, a wall of upcoming debt maturities, customers frequently delaying payment and companies struggling to generate revenue generally, the need for companies to access flexible capital solutions is greater than ever before. In many cases, while companies could be highly solvent over the long run and even be performing well operationally, an upcoming maturity and near-term liquidity issues can create problems for them.

One unique solution for stressed companies with high-quality customer bases has come in the form of accounts receivable (A/R) financing or factoring. Here, companies can either sell their current/forward flow receivables from customers, or secure a loan with their receivables serving as collateral to the lender. For companies, the upfront financing can serve many purposes, whether to pay down an upcoming maturity, fund an acquisition, or fund ongoing working capital needs, among other things. Capital providers are typically able to earn attractive yields for the underlying risk taken; the return premium can be earned due to the complexity involved in structuring transactions and the urgency on the company's side; at the same time, risk is mitigated by favorable structuring and exposure to high-quality receivables, preferably backed by investment grade counterparties. While the underlying collateral is often strong, banks can face high capital charges for these facilities, and are often hesitant to lend capital to companies in bankruptcy or under duress.

Pricing is typically more attractive for lenders who are able to proprietarily source deals as opposed to participating in syndicated deals, as they can gain greater influence over terms and outcomes. Alternative lenders with unique relationships, an established track record, and an ability to move both quickly and in size are often the first sought out for these types of deals. By taking an active role, financers have the chance to customize a stronger package of terms that includes interest rate, LIBOR floor, call protection, seniority in capital structure, collateral, covenants, transaction fees (e.g., upfront, exit, extension, undrawn) and upside kickers (e.g., warrants). Though A/R solutions come in many forms, we will discuss the most common below.[1]

Factoring

Accounts receivable financing comes in various forms but the most traditional is called factoring. With A/R factoring, an intermediary (the factor) purchases receivables from a company (the supplier) where money is owed by customers (the obligor). The factor typically purchases receivables at a discount to face value and earns a yield based on the ability to collect payments, with additional upside if the recovery period is accelerated. If, on a non-recourse basis, the credit risk is transferred from the supplier to the factor, the receivables no longer appear on the supplier's balance sheet and the early payment is booked as cash. While lenders analyze the financial condition of the borrower, repayment is ultimately determined by dedicated cash flow from the conversion of receivables and not cash flow from operations.

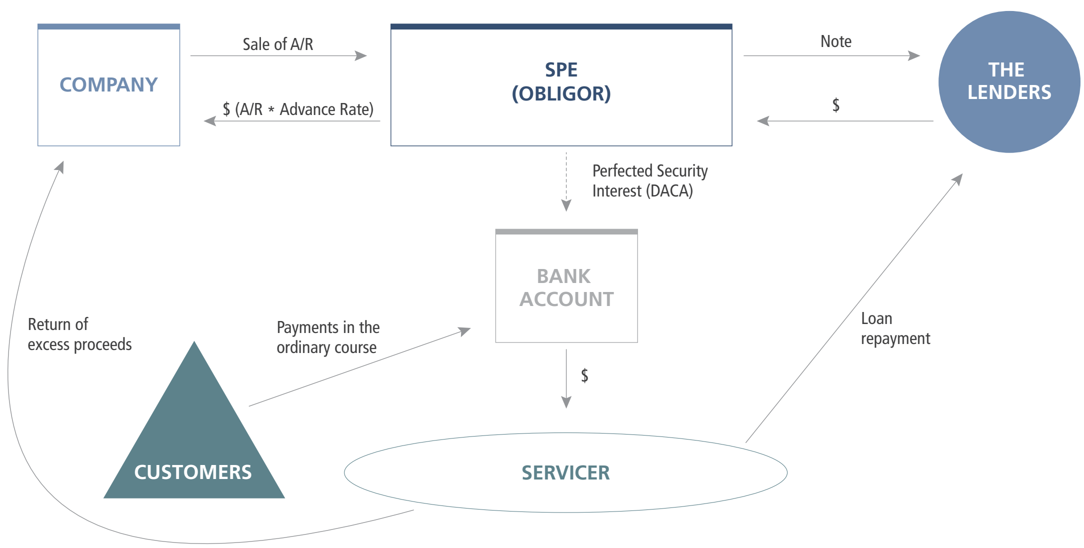
[1] For illustrative and discussion purposes only.

Financing

The credit facilities we see more commonly from hedge funds and asset-based lending firms are structured as revolving lines of credit or term loans that are secured by a defined pool of receivables. The amount advanced by the lender depends on the quality and performance of the collateral and is set as a percentage of the value of eligible collateral. By advancing at a rate below 100%, lenders are provided a margin of safety in the event that receivables do underperform. Whereas A/R factoring is concerned solely with the timely conversion of receivables into cash, if structured well, A/R financing facilities sit senior to any other debt in a company's capital structure and are backed by cash flow from operations and corporate assets as well as receivables as additional collateral.

A/R financing facilities are typically structured as off-balance sheet, bankruptcy-remote special purpose vehicles (SPV or SPE) to protect the lender in the event of bankruptcy. As illustrated in the flow chart below, lenders send capital to the SPE in exchange for a note denoting repayment. The SPE delivers the cash to the company in exchange for the company's A/R, which are removed from the balance sheet in the process. As the company's customers pay in the normal course, this cash is sent to a bank account with a DACA control agreement. This agreement enables the secured party (the company) to obtain control over the deposit account, and so enables its security interest to be perfected, which enables the creditor to enforce its rights against the debtor. For a small fee, a servicer collects payments from the bank account and repays the lender per the terms of the facility.

ACCOUNTS RECEIVABLE FINANCING: TYPICAL STRUCTURE



Source: Neuberger Berman. For illustrative purposes only.

As mentioned above, in structuring transactions lenders often have leverage to negotiate an attractive set of terms. Managers will typically lend at an advance rate below 100% of the value of eligible collateral to cushion against underperforming receivables, and may also choose the composition of counterparties that make up the pool. Requirements can be made with respect to customer concentration within the pool, maximum receivables days outstanding, and customer credit quality, among other things. While lenders often seek to limit their exposure to only the highest-quality, preferably investment grade-rated counterparties, their ability to negotiate high yield-type yield spreads offers a compelling risk/reward proposition. To enhance potential returns further, managers will frequently charge upfront fees on the close of the facility, fees upon exit, and fees for any extensions that the borrower might need to make to stay afloat. Managers may also designate a minimum draw amount on the facility to ensure their capital is put to work, while also charging fees on undrawn capital.

If underwritten properly, these enhancements, in our view, can provide a strong edge over sponsored deals where the involvement of brokers and intermediaries leads to less control over structure and pricing. However, navigating direct-to-company transactions presents a variety of challenges. We believe it requires proprietary relationships with operating companies to drive deal flow; it demands specialized resources to handle their structural, operational and legal nuances; and it may call for the ability to act quickly and at scale to alleviate the urgent liquidity issues of stressed or distressed companies. Issuers can also falter and struggle after deal conception, necessitating a more hands-on approach for effective workout and restructuring outcomes. These added complexities are not easily digestible by traditional market participants, allowing specialist managers to seek higher returns for offering highly customized capital solutions to smaller borrowers that may not otherwise have access to financing.

In the case that the company outperforms expectations and/or is able to secure cheaper funding down the line, the company will often seek to pay down the facility early or refinance to avoid paying above-market interest over a multiyear period. From the lender's perspective, while this would shorten the life of the facility and the potential multiple earned on invested capital, it can be offset with a higher IRR driven by upfront, exit and undrawn fees amortized over a shorter time horizon.

In the event that the company underperforms, lenders are protected against potential bankruptcy through the SPV and well insulated against losses given seniority in the capital structure and exposure to high-quality collateral at an advance rate below 100%. If revenue is lower than expected and, in turn, so is the receivables base, the company may not be able to draw as much as initially expected, earning the lender significant fees on undrawn capital. In some cases, lenders will obtain insurance on the pool of receivables for a small fee to gain additional protection against receivable collection delays.

Conclusion

In an unprecedented state of the world where corporations with massive debt burdens are facing secular challenges and traditional corporate credit investing has its share of risks, we believe that A/R financing serves as an attractive option for debtors and creditors alike. While companies under duress can gain access to relatively cheap capital for an extended period of time, lenders who have the ability to proprietarily source and structure transactions of this nature gain the ability to potentially earn high yield-type returns by taking on investment grade-type risk. For investors who can tolerate a degree of illiquidity, receivables financing can potentially serve as a highly attractive source of risk-adjusted returns.

This report was prepared by the Neuberger Berman Alternative Investment Management Team.

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