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Greener Future(s)

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Introduction

Roughly two decades ago, institutional investors began to embrace commodity futures as a valuable component of their portfolios. Long-only commodities exposure can provide equity-like returns with little correlation to traditional holdings and a positive beta to inflation. As financial markets have weathered wars, financial crises, and the results of accommodative interest rate policy, many of the world's largest investors continue to maintain a portfolio allocation to a long basket of commodities (often indexed to the GSCI or BCOM) - a choice that has paid off more recently as inflationary pressure again dominates the conversation. Somewhat paradoxically, despite growing investor scrutiny around commodity-heavy industries in the equity and debt markets, the futures tracking the underlying raw materials (and hence the components of commodity index books at large allocators) have largely been excluded from the ever intensifying ESG conversation occurring across the investment universe.

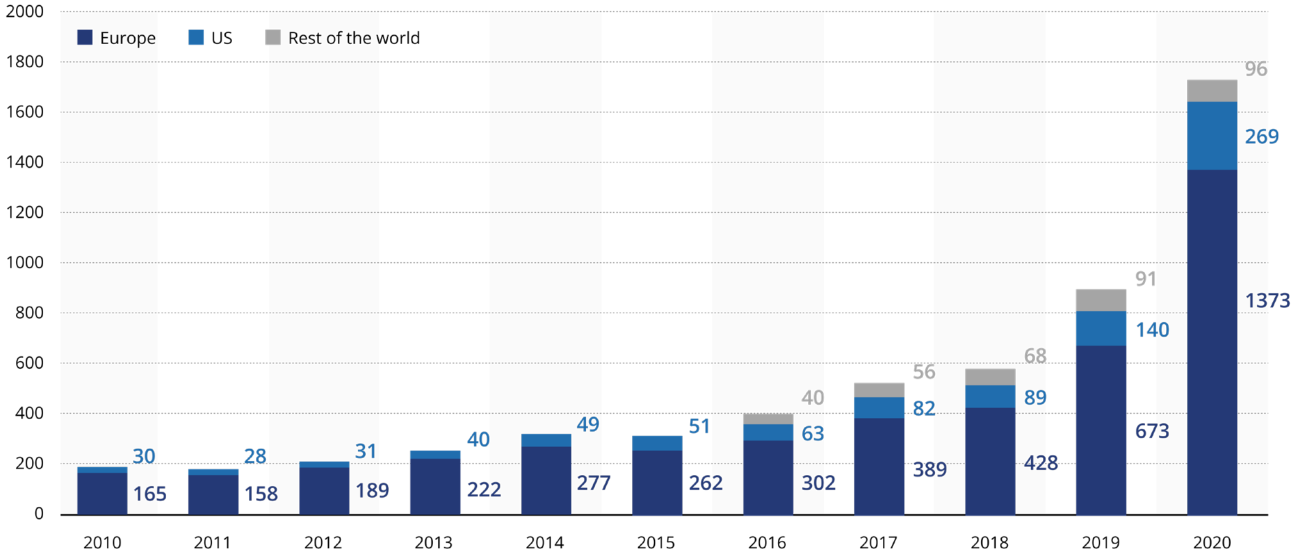
It comes as no surprise that the components of a traditional commodity index of liquid futures would fail any reasonable ESG screen, as they range from "dirty" petroleum to child-labor driven cocoa. But because their percentage in the institutional portfolio is so small (relative to the easy targets - stocks and bonds), these assets have largely escaped the ESG dragnet. As investors continue to take ESG concerns more and more seriously, however, commodities will surely come under scrutiny.

Until very recently, it was easy to argue that any viable alternatives to traditional liquid commodities futures (e.g. emissions contracts, carbon credits, and biofuels) were simply too small - both in terms of liquidity and open interest - to support investment at meaningful scale. Without question, the development of commodities futures follows the demand for such products in "real life" - futures markets, after all, are a risk transfer mechanism for the real economy. And while demand for "dirty" commodities goes back decades (if not centuries), demand is rising for environmental commodities such as biofuels and emissions propelled by government mandates. These products constitute part of the growing green commodities market. Investors now have a choice when it comes to commodity exposure - evolve with a more carbon-neutral future or hope their dirty allocation escapes ESG scrutiny (an unlikely prospect).

The state of ESG in futures markets

More and more investors following the spirit of the times are moving towards strategies that incorporate ESG principles. In equity markets, this means investing in companies that take steps to manage their social and environmental impact and implement proper and equitable governance practices. The ESG movement has even changed the way a company's performance is measured. Whereas analysts once focused largely on financial statements and reports, they now use a variety of scoring algorithms, techniques and indices to evaluate adherence to ESG standards. While Europe has been the obvious leader in ESG incorporation over the last decade, adoption in the United States has increased rapidly in recent years (Figure 1).

Figure 1. Number of sustainability-themed funds (2010 - 2020)



Source: UNCTAD, based on Morningstar and TrackInsight data

Note: Fund numbers do not include funds that were liquidated; the numbers for 2020 are as of 30 June 2020.

In commodities markets, however, ESG adoption is nascent. This is in part because the "S" and the "G" components of ESG screening tools were designed with publicly traded companies in mind. However, commodities carry the most direct mapping on the "E" factor. Each commodity's production and consumption has a very different, yet very specific, environmental impact. Be it energy, crops, or metals, it is relatively easy to understand how they impact our planet both from the producer and consumer perspectives. Perhaps the most obvious link between commodities markets and the societal shift toward environmental sustainability is in energy. As of December 2021, more than 70 countries (that would account for 80% of emissions) have committed to net-zero emissions at various deadlines.

The "E" impact of commodities will constitute the main focus of Teza research in the space.

Teza approach to green commodities

Teza strongly believes that investors are best positioned for maximum impact in situations where they are also able to generate significant returns, achieve diversification, or satisfy other portfolio goals. The firm is driven to find opportunities that can deliver strong returns while developing markets for new, ESG-related commodities: a win for investors, commodity producers/consumers, and for the environment.

The carbon credit and biofuels markets offer the only such investible opportunity in futures space currently.

Niche commodities with growing global relevance

Carbon credits came about as part of governmental "cap-and-trade" programs which place a total limit ("cap") on carbon and other greenhouse gas emissions. A carbon credit is a permit which allows the owner to emit a specified amount (one ton) of carbon dioxide or the equivalent in other greenhouse gasses. Each year, governments issue a limited number of carbon credits, and this number decreases over time. Companies are able to sell unused credits, and must purchase additional credits if their emissions exceed their designated limit. With a rapidly changing global climate and increased concern around emissions, many countries and regions have rolled out these programs, and many more are in the process of developing them.

While carbon credits serve to limit emissions of harmful greenhouse gasses, mainly among industrial producers, biofuels have emerged as a critical alternative energy source to traditional refined products like gasoline and diesel. The most widely used biofuels today are ethanol and biodiesel, which play a significant role in reducing the carbon intensity of the transportation sector. Many countries that have established policy goals related to the energy transition, are aiming to increase the biofuels-to-conventional-fuel-blend over time, driving increased demand for these products and the corresponding futures markets.

Markets

Carbon credits futures are traded on a number of exchanges, allowing owners to sell their unused credits and purchase additional credits as needed. As carbon emissions receive increased attention from policymakers and legislation continues to evolve and change, growing liquidity and participation in futures markets has followed. Derivatives play an essential role in managing volatility as they can transfer a wide range of risks in the economy from one entity to another, and in doing so improve efficiency and transparency for market participants.

Efficient price discovery is especially critical in carbon credits markets as carbon price is central to the delivery of climate policy objectives. It is widely recognized that the EUA price, for instance, needs to be substantially higher than price levels seen prior to 2021 for the EU to meet its decarbonisation targets.

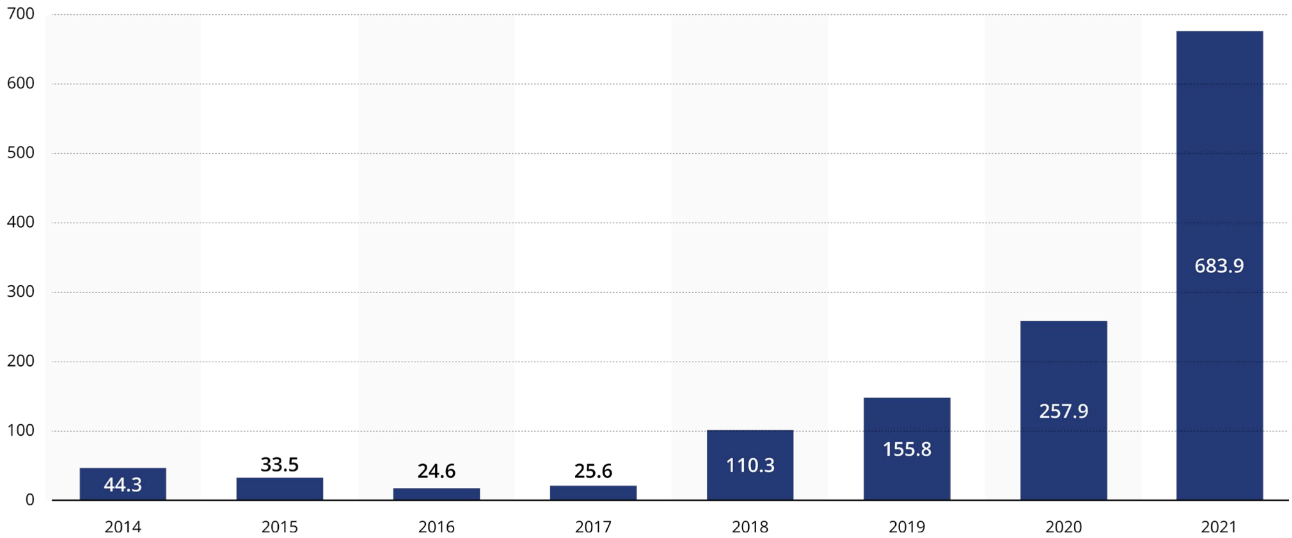
As emissions trading programs continue to grow (Figure 2), secondary markets are becoming increasingly liquid, with an annual trading volume of over $683 billion as of December 2021 (Figure 3).

Figure 2. Carbon credits market growth

Year	2014	2015	2016	2017	2018	2019	2020	2021
Total growth	–	-0.24%	-0.27%	3.99%	330.97%	41.23%	65.50%	165.14%

Source: IHS Markit as of 12/31/2021

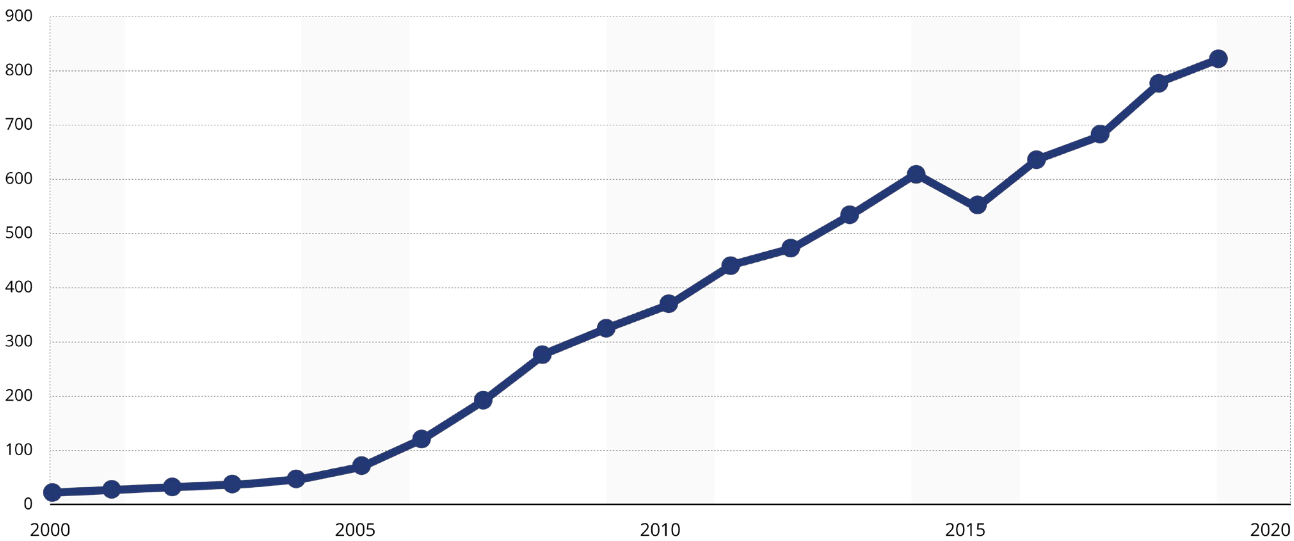
Figure 3. Carbon credits futures markets annual trading volume (Billions, Jul 31, 2014 - Dec 31, 2021)



Source: IHS Markit as of 12/31/2021

Biofuel markets are less liquid than carbon credit markets, and are primarily used by physical participants and hedgers. Though barriers to entry can be high, the opportunity is significant given sustained growth in biofuels production (Figure 4).

Figure 4. Global biodiesel production (Mb/d, 2000 - 2019)



Source: U.S. Energy Information Administration

Green Commodities in the Institutional Portfolio

Participation in volatile and rapidly growing green commodities markets provides significant opportunities for the savvy institutional investor. While trading evolves, inefficient green commodities markets can offer attractive returns. It also enables investors to move away from "dirty" commodities and play an active role in the global energy transition.

As a way to better understand the opportunity set, Teza has constructed a test portfolio of green commodities that strongly supports the benefits of portfolio inclusion. In addition to positive return potential versus both standard commodities benchmarks and broader markets (Figure 5), the index exhibits attractive non-correlation to traditional asset classes and a positive beta to inflation (Figure 6).

Figure 5. Performance of Sample Diversified Green Futures Index vs Benchmarks

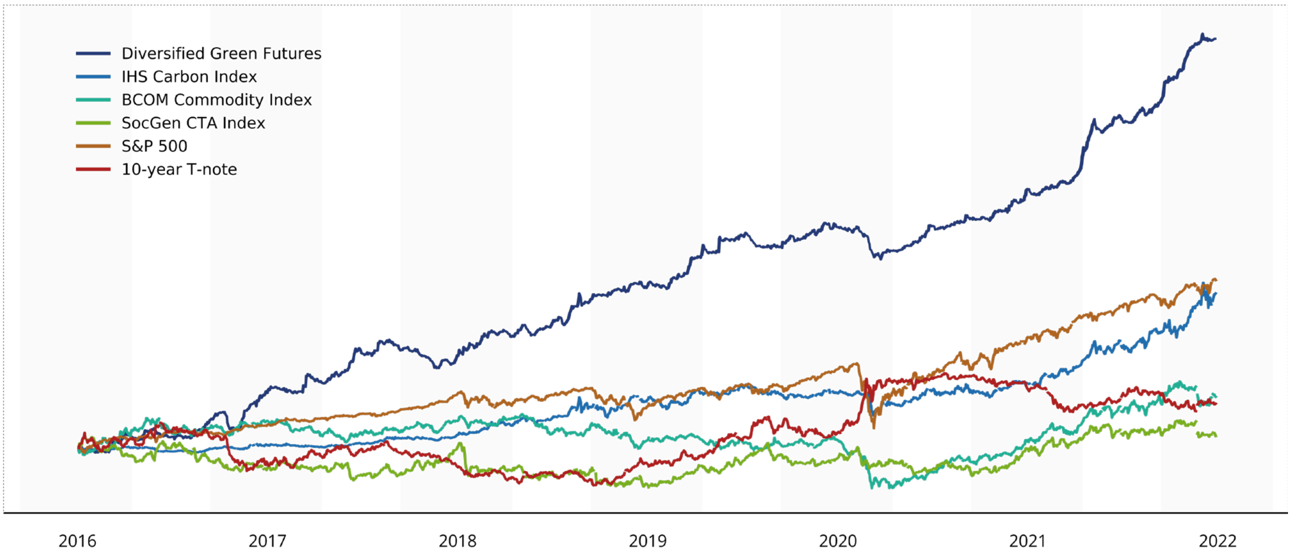
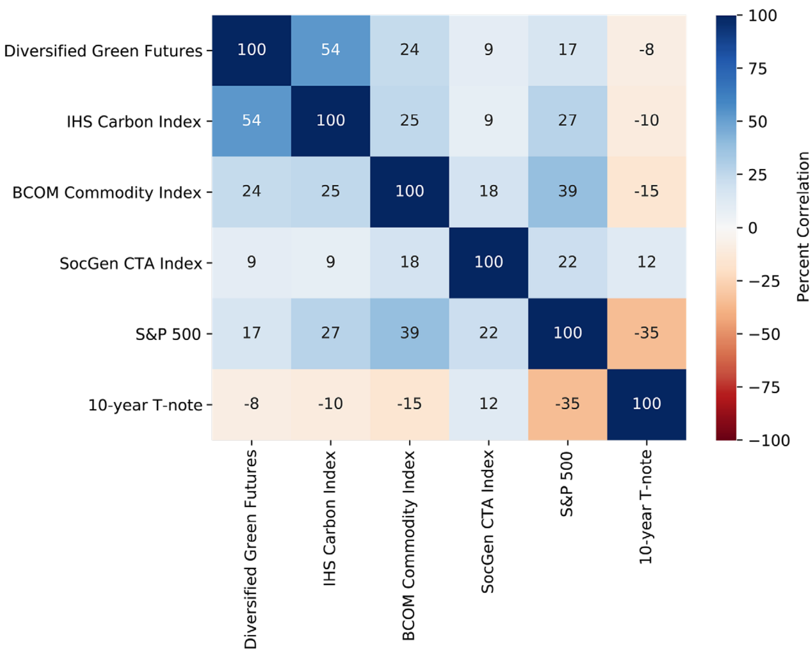


Figure 6. Correlation of Sample Diversified Green Futures Index with Traditional Asset Classes



For institutional investors with current allocation to traditional commodities (whether beta or alpha), repositioning into green commodities can achieve similar or better portfolio-level goals while optimizing for positive environmental impact. For investors still considering a commodities allocation, a green strategy can provide attractive returns and portfolio diversification while also ensuring that the portfolio keeps up with evolving ESG standards.

Although institutional participation in green commodities markets is low, Teza believes that the time is right for investor adoption. The argument can no longer be made that traditional commodities are the best option to hedge against inflation and achieve non-correlation to traditional asset classes. Green commodities have made the leap from a producer-consumer market to an attractive, investable asset class. It is time for the investment industry to start the conversation about what “ESG” means in commodities markets, and for smart investors to get ahead of the curve.

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