The Frontier Line

Thought leadership and insights from Frontier

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The how and why of ESG derivatives

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About us

Frontier has been at the forefront of institutional investment advice in Australia for over 25 years and provides advice over more than $490 billion of assets across the superannuation, charity, public sector, insurance and university sectors.

Frontier's purpose is to empower our clients to advance prosperity for their beneficiaries through knowledge sharing, customisation, technology solutions and an alignment and focus unconstrained by product or manager conflict.

Donna Davis

Consultant

Donna Davis joined Frontier as an Associate in 2019 and was promoted to Consultant in 2021. She works with the Alternatives and Derivatives and Debt and Currency teams, specialising in less liquid investment strategies such as insurance linked securities and opportunistic credit along with derivative structure and strategy modelling and assessment. Donna also has a particular interest in data analysis techniques and has completed research into cluster analysis and how it can be applied in client portfolios.

Prior to joining Frontier, Donna worked for AustralianSuper in their Options Management Team. She also has almost 10 years banking experience with the Commonwealth Bank and ANZ in Corporate and Commercial banking across relationship management, complex lending and transactional banking.

Donna holds a Bachelor of Quantitative Finance from the University of South Australia and is currently completing the CFA program.

James Bulfin

Senior Consultant

James joined Frontier in 2020 as a Senior Consultant within the Alternatives and Derivatives Research Team. His responsibilities include undertaking investment and manager research of liquid and illiquid alternative strategies as well as derivative strategies, including providing specialist advice for these areas to clients.

Prior to joining Frontier, James worked in Singapore for six years at Barclays Investment Bank trading macro markets focusing on derivative solutions for clients. Prior to that, James worked at Goldman Sachs for nine years across a number of trading and risk management roles, including as a Macro Trader in the Propriety Trading Division and a Portfolio Manager in the Treasury Liquidity Group.

James is currently completing a Masters in Applied Finance with Kaplan. He also holds a Graduate Diploma of Applied Finance and Investment from Finisa, a Bachelor of Business and a Bachelor of Information Systems from Swinburne University of Technology.

Introduction

ESG derivatives are relatively new to financial markets with the first product launched in 2018. This burgeoning market provides investors with an additional tool that can be used to achieve portfolio management objectives along with ESG outcomes.

This paper provides an overview of equity index derivatives, in particular exchange traded futures. It explores the range of products available, market characteristics and coverage, investment applications and considerations. While there is a wide range of over-the-counter products available, we focus on the most liquid exchange-traded products.

What are ESG derivatives?

ESG derivatives are financial instruments based on an underlying asset that incorporates ESG factors. Investors can use ESG linked derivative products to mitigate risks associated with various ESG factors, including climate transition risks. Investors may use ESG derivatives to either reduce exposure to certain sectors (e.g. fossil fuel producers), while also gaining exposure to more sustainable investments (e.g. a low carbon equity index).

Currently, there are only a few exchange-traded ESG-linked products. Frontier has sampled a snapshot of what is currently in the market.

Figure 1: A sample of the ESG derivative products currently available in the market

Futures		Options	
STOXX/DAX	MSCI	STOXX	DAX
eg., STOXX Europe 600 ESG-X, DAX 50 ESG	eg., MSCI World ESG Screened, MSCI World Climate Change	eg., STOXX Europe ESG Leaders Select 30, STOXX Europe 600 ESG-X	eg., DAX 50 ESG

Source: Frontier, Eurex. As at April 2021[1]

[1] STOXX is a subsidiary of Deutsche-Borse Group and provides indices representing Europe and global markets. DAX stands for Deutscher Aktien Index and is a German index provider. MSCI stands for Morgan Stanley Capital International and is a global index provider.

There is a large variation in how ESG considerations are applied to equity indices. In most cases, the index is ESG- adjusted or tilted. There is continued evolution of how responsible investment (RI) approaches and ideals can be implemented into financial products. One platform, Eurex, the European derivatives exchange and clearing house, has taken the following three phase approach to product coverage:

1

Exclusion.

Companies who invest in sectors such as tobacco and weapons or who are in breach of UN Global Compact principles are excluded.[2]

Products include STOXX 600 ESG-X futures and MSCI ESG Screened futures

2

Inclusion.
Evolving area

ESG scores are incorporated into component selection and the best ESG performers are targeted on a sector-by-sector basis.

Products include STOXX 50 Low Carbon futures and DAX 50 ESG futures/options.

3

Targeted socially responsible and impact investing.
Not yet available

Investments focus on improving society or the environment. They may also focus on companies working toward sustainable development goals (SDGs).

Product development is still underway.

[2] The investment exclusion is classified as follows: involvement in controversial weapons, tobacco production, revenue derived from thermal coal extraction or exploration and / or power generation capacity which utilises thermal coal.

Market characteristics

The market is still young and developing with initial products launched in 2018. As a result, liquidity is low. Market interest, however, has been improving with increasing demand from investors.

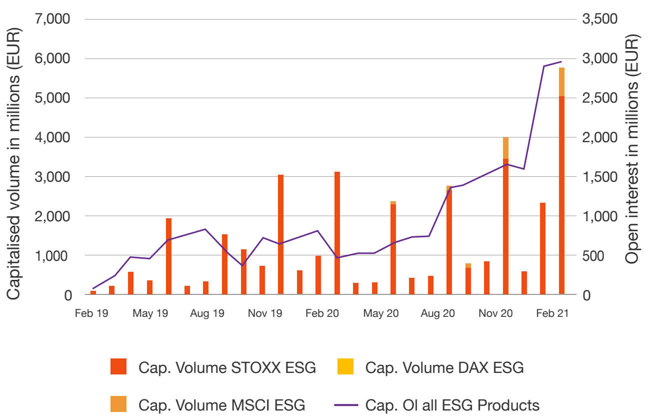
Government and regulatory focus on climate change, in particular carbon emissions led by European regulators, has also had a strong influence on market adoption. Under President Biden, the US has rejoined the Paris Agreement and has increased the commitment to reducing carbon emissions. There is a clear positive correlation between increased government focus on climate change solutions and investor demand for sustainable investment products.

Figure 2: Timeline of product development to date

Source: Frontier. Data as at April 2021

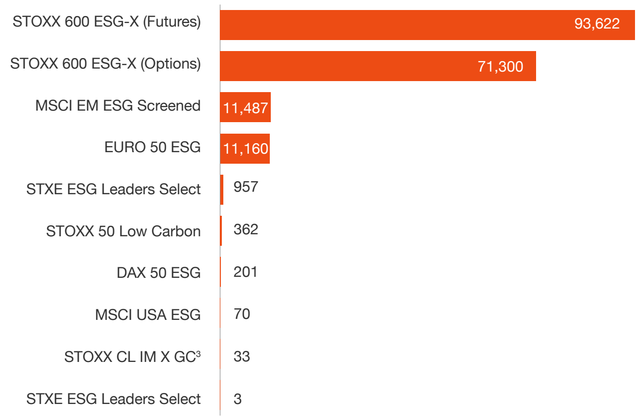
To March 2021, approximately €9 billion in contract volume had been traded with approximately €3 billion held in open interest. This compares with €1 billion in open interest in 2019, highlighting the rate of growth that has occurred in recent years.

Chart 1: Capitalised volume and open interest



Source: EUREX, April 2021

Chart 2: Open interest as at April 2021

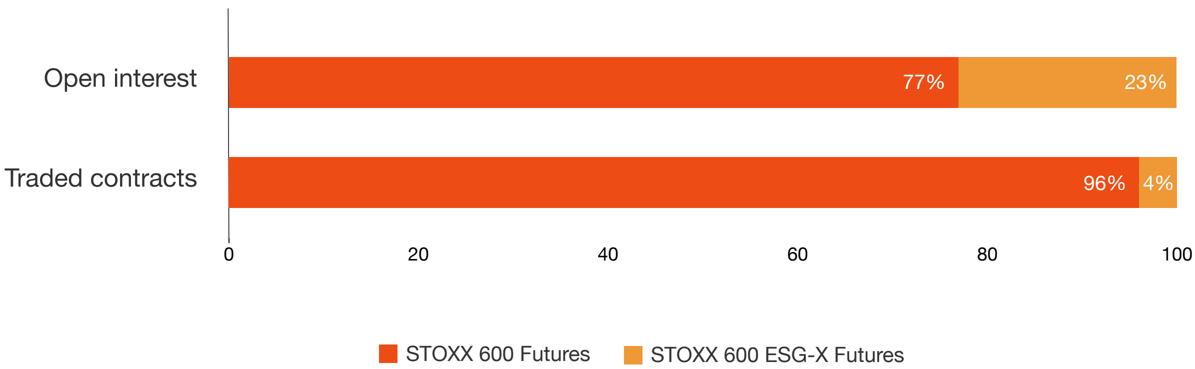


Source: EUREX, April 2021

[3] STOXX Europe Climate Impact Ex Global Compact Controversial Weapons & Tobacco Index futures

The volume of traded contracts and open interest is still substantially less than in the parent indices. Chart 3 compares the market for STOXX 600 ESG-X futures contracts (which is currently the most liquid of the ESG derivatives) with the parent STOXX 600 futures. While only a small fraction of trading occurs in the ESG version, there is a significant level of open interest in it. This suggests investors are using the instruments to gain ongoing exposure rather than trading them on a short-term basis.

Chart 3: Market volume split



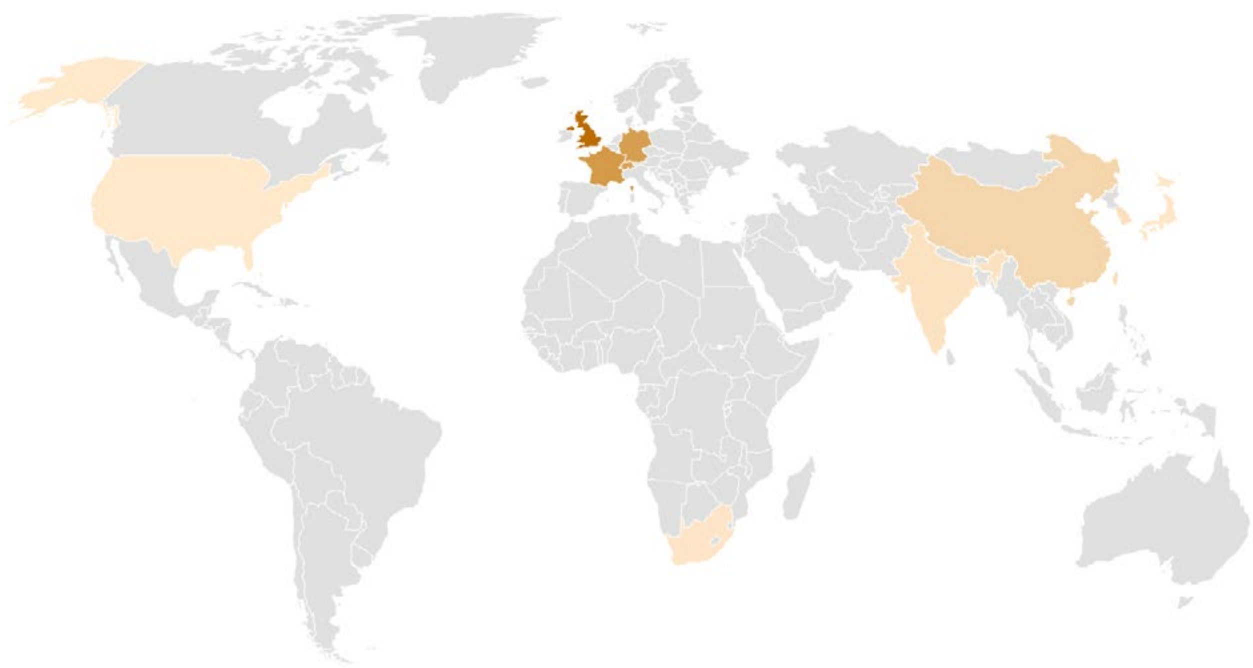
Source: Eurex, Frontier. Data represents the volume of open interest and traded contracts as at 29/07/2021.

Market coverage

The majority of contracts are based on UK and European companies, with an increasing inclusion of US and Asian companies.

Growth opportunities exist for products covering Australasia and EM countries but currently product offerings in these geographies are limited. For Australian investors, this means implementation is more likely to be bespoke until more targeted off-the-shelf products become available. Bespoke solutions, such as customised equity swaps, have been a popular implementation method for investors who can trade these instruments.

Chart 4: Geographic coverage of available ESG indices



Source: Frontier, EUREX, MSCI. Data as at April 2021. The darker orange colors indicate an increased concentration of companies in that location.

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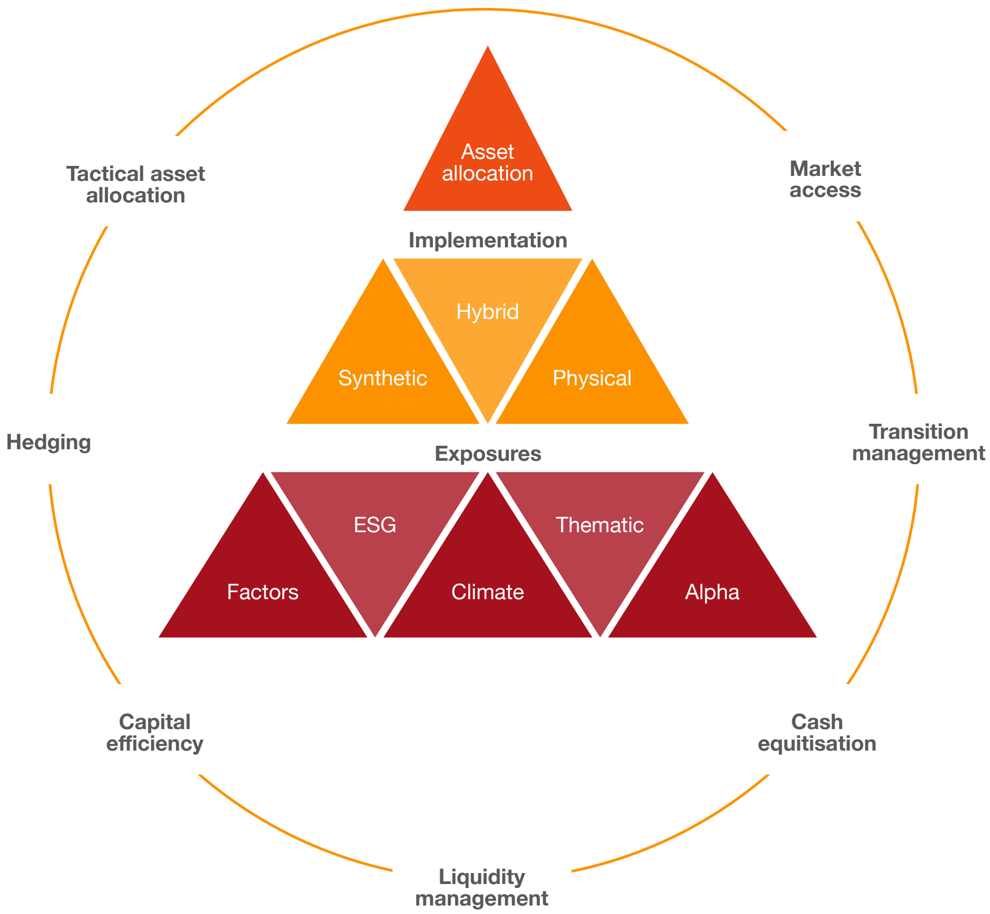
Applications

Derivatives have many purposes within a portfolio ranging from portfolio completion tools to targeted tilts and opportunistic trading. This is also true in terms of ESG integration in portfolios and we expect to see an increased usage of ESG derivatives in the future.

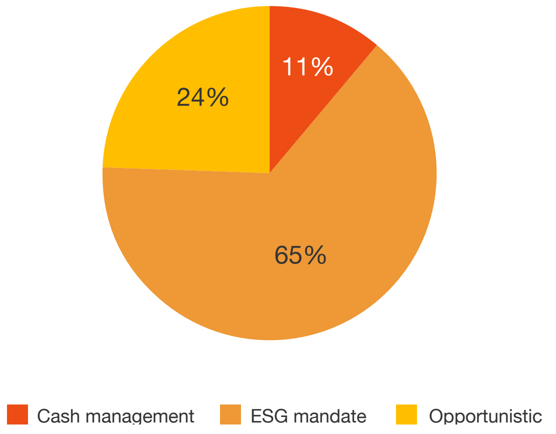
Figure 3: Role of derivatives in portfolio management



Source: MSCI, July 2021

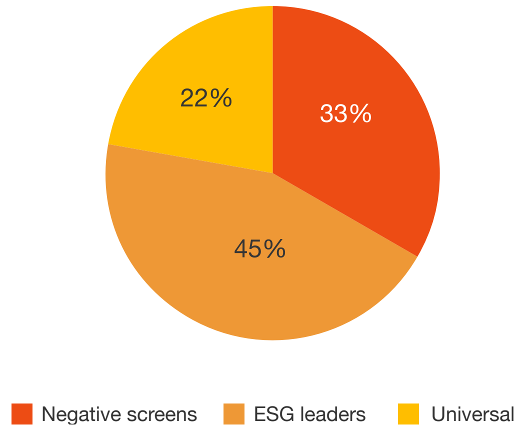
Currently, most ESG derivatives are being used as a portfolio completion tool that is compliant with ESG mandates. While clients are preferring a more universal approach to ESG incorporation, most of the popular derivatives use negative screens. As the market continues to evolve, we expect to see a greater range of products with broader ESG incorporation methodologies.

Chart 5: Primary uses of ESG derivatives



Source: BrightTALKS, March 2021

Chart 6: Investor preference of ESG incorporation methodology



Source: BrightTALKS, March 2021

Considerations

Investors have three main considerations when dealing with ESG derivatives, basis risk, transaction costs and market coverage. All three can impact on the effectiveness of using ESG derivatives.

Basis risk

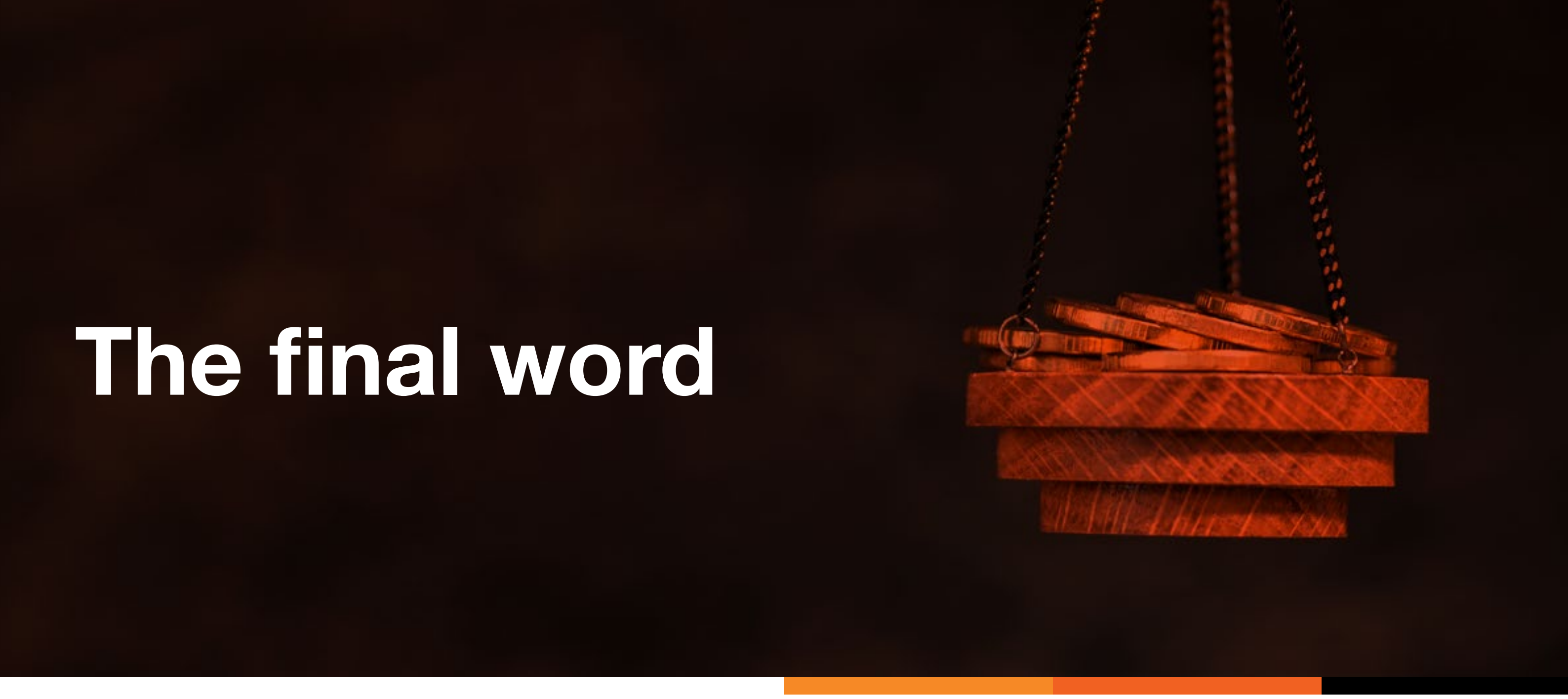
The price of the derivative can deviate from the price of the underlying asset. This can lead to tracking error or underperformance.

Transactions costs

Less liquid ESG equity indices may incur higher transactions costs caused by wider bid/offer spreads.

Market coverage

ESG derivatives are mainly focused on European indices. Investors with a larger exposure to Australian assets may need to consider customised solutions.



The final word

The incorporation of broader ESG investment principles into derivative products is a positive step forward. While the market is currently heavily skewed toward European and UK markets, demand and product evolution is proceeding at ever increasing rates.

Market coverage is expanding, however, investors need to be mindful of basis risk, transaction costs and coverage when they are considering ESG derivatives.

Want to learn more?

If you or your fund are interested in ESG derivatives, Frontier can assist. Please reach out to a consultant or to a member of the Alternatives and Derivatives Team.

Frontier

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