GS Global Environmental Impact Equity Portfolio

INVESTMENT COMMENTARY

FUND FACTS[1]

Fund inception	February 2020
Fund size	US$ 903 Mn
Number of Holdings[2]	53
ISIN (I Acc, P Acc, R Acc)	LU2106860021, LU2106860377, LU2106860534
Bloomberg Ticker (I Acc, P Acc, R Acc)	GOIEPIU LX, GGLEIPA LX, GGLEIRU LX
Benchmark	MSCI All Country World

GLOBAL MARKET REVIEW

Global equities continued posted a recovery in the last quarter of 2022, returning 9.8% (total returns in USD). Markets remained focused on the release on corporate earnings and economic data along with central bank actions and progression of COVID-19 in China.

During the quarter, the release of corporate earnings showed resilience at the overall level, with a majority of the companies registering a positive earnings surprise both at the top-line and bottom-line level. The Energy sector continued to be the main driver for beats, benefitting from heightened oil and gas prices. Though absolute proportion of beats remained strong, the number came in below that for the second quarter, reflecting the impact of macro-economic headwinds at the corporate level. Investors continued to focus more on management guidance and company estimates, in order to gauge the level of future market uncertainty.

Global inflationary pressures picked up in October but dialed down subsequently, as per data release in the months of November and December. The alleviation in cost pressures was driven by a decrease in crude oil and natural gas prices, though they still remain higher as compared to last year, as milder weather in Europe reduced demand. This sparked hopes around a reduction in rate hike aggressiveness moving forward, expectations which were validated by hikes of 50 bps by Federal Reserve and European Central Bank as compared to the previous sizes of 75 bps. However, comments from both central banks highlighted the need to keep monetary policy tight and continuation of rate hikes into 2023. Bank of Japan surprised markets during the quarter by increasing the tolerable yield range for 10-year government bonds and raising quantum of open market operations. Though comments highlighted that these tweaks were aimed at improving the functionality of bond markets and efficiency of monetary actions, market expectations hinted towards more policy normalization in beginning of 2023.

COVID-19 continued to spread in China, with the infection peaking in major cities of the region and new cases coming primarily from tier II and III cities. This motivated the Chinese government to do away with the restrictions imposed previously, raising hopes around some ease in supply chains and rebound in manufacturing activity, which has been on the downtrend through the year. However, high quantum of domestic cases led to various countries imposing travel restrictions and mandatory testing requirements on Chinese travelers and visitors.

Source: Goldman Sachs Asset Management as of December 2022. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation.

[1] Source: Goldman Sachs Asset Management as of December 2022.
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PORTFOLIO PERFORMANCE

- The I Acc share class of the GS Global Environmental Impact Equity Portfolio delivered 9.8% (net of fees, USD) in absolute returns, which was mostly in line with MSCI ACWI with a beat by 4 bps in the last quarter of 2022. This brings since inception returns to 7.8% (annualized, net of fees, USD) outperforming the benchmark by 465 bps.
- At the country level, the portfolio's allocation to **Italy** and **Spain** supported relative performance during the quarter. On the other hand, our positions in **United States** and **China** detracted the most from portfolio returns.
- At the sector level, our allocation to **Consumer Discretionary** and positions in **Information Technology** contributed to portfolio performance during the quarter. On the other hand, our positions in **Consumer Staples** and **Industrials** detracted from portfolio returns[3].

Fund Performance: GS Global Environmental Impact Equity Portfolio – I Acc. (net of fees in USD)[4]

Periods ending 31st Dec 2022	Portfolio Net Returns (%)	MSCI ACWI (%)	Net Excess Return (bps)
Q4 2022	9.8	9.8	**+4**
Trailing 1 Year	-27.3	-18.4	**-890**
Trailing 2 Years	-8.9	-1.6	**-728**
Since Inception (14th Feb 2020)	7.8	3.2	**+465**

Source: Goldman Sachs Asset Management as of December 2022. Periods greater than 1 year are annualized.
Past performance does not predict future returns and does not guarantee future results, which may vary.

PERFORMANCE COMMENTARY

***Top contributors** to portfolio performance[5]:*

- **Chr. Hansen Holdings** *(Contributor)* – The top contributor during the quarter was Chr Hansen Holdings, a Denmark based bioscience company, which engages in the development of natural solutions for the food and agricultural industries. The stock price rose as Chr Hansen and Novozymes announced their intention to merge, creating a Global BioSolutions partner. According to the management, the new company's diversified portfolio would be better able to respond to evolving customer demands, developing new strains and cultures to meet tomorrow's need. We like the company for its alignment to the Sustainable Consumption theme. For instance, bio-based solutions such as Bovamine are helping to increase milk yield in cows and reduce usage of anti-biotics. The increased efficiency can help save ~20,000 tons of milk and ~30,000 tons CO2. Other products contribute to more sustainable agricultural practice and can result into 20% reduction in pesticide and fertilizer usage.

- **Infineon Technologies** *(Contributor)* **–** One of the top contributors for the quarter was Infineon, the German manufacturer of semiconductors for its automotive, industrial and computing segments. Infineon's solutions make end-products more energy-efficient, improving customers' environmental footprint. The stock outperformed after the company released a set of strong quarterly results increasing its long-term financial targets and sharing a positive outlook for 2023. We continue to like the company because of the significant growth opportunity in the EV industry and its business strategy. Infineon is the global leader in Automotive power semiconductors providing chips that are crucial for automobile electrification and clean energy generation.

***Top detractors** from relative returns:*

- **Wolfspeed** *(Detractor)* – The top detractor for the quarter was Wolfspeed, a semiconductor powerhouse focused on silicon carbide and GaN technologies, leading the worldwide transition from silicon, a less efficient semiconductor. The stock came under pressure after they announced increase in the amount of capex over a 5-year period to build manufacturing facilities on the back of strong demand outlook for silicon carbide semiconductors. Investors are concerned about the cost of sourcing for these facilities in a high interest rate environment. Despite investor concern, we continue to believe in the long-term structural growth story of the company. The company officially opened the world's largest 200mm Silicon Carbide fabrication facility in New York in March. While that may put short term pressure on the margin, we are positive on their efforts to expand their operations. Wolfspeed's product portfolio provides disruptive technology solutions that support a more efficient, sustainable future including electric vehicles, fast charging, 5G, power supplies, renewable energy and storage, as well as aerospace and defense.

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[4] Source: Goldman Sachs Asset Management. The returns shown above are for the Institutional Accumulation share class (net of fees in USD). Inception Date: February 14, 2020. MSCI ACWI is the official benchmark for the portfolio. All periods greater than one year are annualized. **Past performance does not guarantee future results, which may vary.** The holdings and/or allocations shown may not represent all of the portfolio's investments. Future investments may or may not be profitable.

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Compared to alternatives, the company's products sold in 2019 will save approximately 140 MMT of carbon dioxide equivalent over their lifetime which is equal to the CO2 savings from 31,000 wind turbines running for one year.

- **Albemarle Corporation** *(Detractor)* – Another detractor during the quarter was Albemarle, a global specialty chemicals company with leading positions in lithium, refining catalysts and applied surface treatments. The stock price dipped in the last month as investors sold it off after the sky-high valuations in November. We like the company for its strong alignment to the thematic we are focused on. In its lithium segment, the company sources raw materials in a sustainable manner and manufacturers batteries supporting electric mobility and energy storage. In its catalyst business, Albemarle provides clean fuel technology to refiners and other power generating companies.

OUTLOOK

We believe the world is on the cusp of a sustainability revolution that could have the scale of the industrial revolution and the speed of the digital revolution. The scale of the problem is huge: in order to meet the goal of the Paris Agreement to keep global warming below 1.5 degrees Celsius compared with pre-industrial levels, GHG emissions need to be reduced by ~50% by 2030. So, moving from fossil fuels to clean energy is obviously important but can't solve the problem on its own. Only a holistic approach can help us to achieve key climate milestones and, hence, solutions need to be implemented across various activities and industries. Additionally, watching how different regions in the world are responding to the COVID-19 crisis has reaffirmed our belief that we have reached an inflection point where governments, corporates and consumers are more unified than ever in their desire and willingness to fight climate change.

The policy support in favor of 'green investing' has significantly increased as governments realize that putting climate change issues on top of their policy agendas is no longer optional. The growing realization that we need immediate action to meet ambitious commitments is leading to more tangible and supportive changes of the operating backdrop. For instance, at the US President's 'Leaders' Summit on Climate' held in April 2021, the US outlined plans to cut the cost of key green technologies including carbon capture systems, batteries and solar energy. Other governments have also doubled down on clean energy. China, the world's largest emitter of carbon dioxide emissions, has pledged to go carbon neutral by 2060[6]. In 2020, we also saw the EU tying ~40% of its COVID-19 recovery stimulus package to support climate objectives[7].

There is also an increasing pressure on corporates from investors, governments and regulators to provide detailed reporting on climate-related areas. In the recent years, net zero commitments from corporates have rapidly increased, with two-thirds of the world's largest 167 global emitting corporates (responsible for over 80% of global industrial emissions) having committed to reaching net-zero.

While we welcome additional policy support that accelerates some of the trends our investments are exposed to, we believe it is crucial to acknowledge the long-term nature of the problems as well as the corresponding investment opportunities we are facing today. Climate change will certainly not be solved overnight and, irrespective of short-term volatilities in equity markets, we believe the green economy is an investment theme that will play out over a period of decades rather than quarters. In our view, the green revolution has just started to gain crucial momentum and, at this stage, is not reversible. To provide some longer term perspective, today only ~3% of global power generation is driven by renewable sources, but this share is expected to move up to 35% by 2040. Similarly, today only ~4% of global car sales consist of electric vehicles (Evs), but this share is expected to move up to 80% by 2035.[8]

Further, it's not simply about 'doing the right thing' anymore. In our view, the underlying economics are now the true drivers of the secular growth story. In fact, thanks to the rapid pace of disruption in the space, cost curves have been already coming down drastically – the renewables and EV battery space are powerful examples in this context – and we are convinced the thematic we are targeting will profoundly change the way we live, work and consume not just because of a supportive policy backdrop, but simply because the economics have started to make sense.

In our view, markets globally underappreciate the power and pace of the world's transition towards greater environmental sustainability. While we see early signs that investors are placing a premium on more sustainable businesses, we believe the disruption that will be caused by changes in consumer behaviour, regulations and corporate innovation is mispriced and not fully understood. By identifying businesses that offer solutions to society to combat climate change, our strategy seeks to take advantage of this inefficiency and place investors on the right side of disruption.

We strongly believe that the themes we are focused on (clean energy, resource efficiency, sustainable consumption, the circular economy, and water sustainability) will move the world towards a more sustainable future. We incepted the GS Global Environmental Impact Equity Portfolio in February 2020 to invest in solution providers operating in these areas. By providing capital to those companies, we seek to enable greater positive environmental impact[10] than would have been possible otherwise. Please see below a few specific areas that we are particularly excited about within each theme:

[6] The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation.
[7] Source: Wall Street Journal
[8] Source: Goldman Sachs Asset Management as of December 2021. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation.
[10] There is no guarantee that objectives will be met.

Clean energy: Renewable Energy growth is being fueled by government measures in India, the US and parts of Europe. Combined with the other net zero policies already in place throughout the world, Goldman Sachs investment research estimates this will result in a 184% increase in power demand, or an average of 3.5% per annum between 2020-2050, up significantly from the less than 1% we currently have seen today.

Resource Efficiency: Goldman Sachs Investment Research anticipates energy efficiency savings of as much as 40% by 2050 in the residential, services and industrials markets based on building efficiencies, smart cities and more—making building efficiencies a particularly exciting area of focus in the years ahead.

Circular Economy: Focusing on a circular economy in five key sectors – cement, aluminum, plastics, food and steel – would be able to offset an estimated 3.7 billion tons of emissions by 2050. In addition to reducing emissions, we believe that some of the most important benefits are to biodiversity – helping preserve the oceans, land and other ecosystems that are integral to life on earth.

Sustainable Consumption: We are excited to see more people becoming conscious of their choices in favor of sustainability. According to a recent survey by BCG, 95% of consumers believed their personal actions could help with environmental issues such as waste reduction, climate change and other biodiversity issues, with up to 30% saying their concerns had elevated during the pandemic.[11]

Water Sustainability: There is growing public awareness of water quality issues across global markets, and notable room for quality standards to improve. Advancements in these areas could help solve water shortages, preventing waste and improving efficiency, for example, by using cloud software to monitor grid networks and spot any leakages or infrastructure in need of replacement.

[11] Bcg.com/publications/2020/sustainability-matters-now-more-than-ever-for-consumer-companies

APPENDIX

Goldman Sachs Global Environmental Impact Equity (Institutional Acc) – Fund Performance in USD			
	Portfolio Net Return (%)	MSCI World Return (%)	Net Excess Return (bps)
Jan 2022 – Dec 2022	-27.27	-18.36	**-890**
Jan 2021 – Dec 2021	14.09	18.54	**-445**
Feb 2020 – Dec 2020	49.80	13.14	**+3,666**

Source: Goldman Sachs Asset Management as of December 2022. Periods greater than 1 year are annualized. Inception Date: 14-Feb-2020
Past performance does not predict future returns and does not guarantee future results, which may vary.

Risk and Reward Profile

Lower risk						Higher risk
Potentially lower reward						Potentially higher reward
1	2	3	4	5	**6**	7

This risk profile is based on historical data and may not be a reliable indication of the future risk profile of the Portfolio. The risk category shown is not guaranteed and may change over time. The lowest category does not mean risk free. It is possible that a portfolio stated to have a lower risk profile may in fact fall in value more than a portfolio with a higher risk profile.

The Portfolio is in category 6 as it mostly invests in shares and similar instruments which typically experience higher levels of price fluctuations than fixed income securities.

The capital is not guaranteed.

Other Material Risks:

- **Market risk** - the value of assets in the Portfolio is typically dictated by a number of factors, including the confidence levels of the market in which they are traded.
- **Operational risk** - material losses to the Portfolio may arise as a result of human error, system and/or process failures, inadequate procedures or controls.
- **Liquidity risk** - the Portfolio may not always find another party willing to purchase an asset that the Portfolio wants to sell which could impact the Portfolio's ability to meet redemption requests on demand.
- **Exchange rate risk** - changes in exchange rates may reduce or increase the returns an investor might expect to receive independent of the performance of such assets. Hedging of this risk may not be fully effective and may increase other risks (e.g. derivative risk).
- **Custodian risk** - insolvency, breaches of duty of care or misconduct of a custodian or sub-custodian responsible for the safekeeping of the Portfolio's assets can result in loss to the Portfolio.
- **Derivatives risk** - derivative instruments are highly sensitive to changes in the value of the underlying asset that they are based on. Certain derivatives may result in losses greater than the amount originally invested.
- **Counterparty risk** - a party that the Portfolio transacts with may fail to meet its obligations which could cause losses.
- **Emerging markets risk** - emerging markets are likely to bear higher risk due to lower liquidity and possible lack of adequate financial, legal, social, political and economic structures, protection and stability as well as uncertain tax positions.
- **Stock Connect** - Stock Connect is a new trading programme and the relevant regulations are untested and subject to change. Investments through the Shanghai-Hong Kong Stock Connect are subject to additional risks, including amongst others, quota limitations, restrictions on selling imposed by frontend monitoring, ownership of securities held on Stock Connect applicable to certain rules, participation in corporate actions and shareholders' meetings, non-protection by any investor compensation scheme, differences in trading day, operational risk, recalling of eligible stocks and trading restrictions, trading costs (including tax), local market rules, foreign shareholding restrictions and disclosure obligations, clearing, settlement and custody risk, currency risk and default risk.
- **Sustainability risk** - an environmental, social or governance event or condition that could cause the value of the portfolio to go down. Examples of sustainability risks include physical environmental risks, climate change transition risks, supply chain disruptions, improper labour practices, lack of board diversity and corruption.
- **Concentration risk** - this is a concentrated asset strategy that is likely to exhibit a significantly greater fluctuations in asset values than a broad investment in a wide range of shares of companies.
- **Risks associated with investments in China:** The Portfolio's operations and financial results could be adversely affected by adjustments in the PRC's state plans, political, economic and social conditions, changes in the policies of the PRC government and laws and regulations, in particular where investments are made through any of the investment regime introduced by the PRC government.
- **For more detailed information on the risks associated with an investment in the Portfolio, please refer to the section in the Prospectus entitled "Risk Considerations" and discuss with your professional advisers.**

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