Strategy Update: *30 September 2022*

MFG Global Equity (USD)

Portfolio Managers	Strategy Inception Date	Total Strategy Assets	Total Global Assets[1]
Nikki Thomas, CFA and Arvid Streimann, CFA	1 July 2007	USD $14,998.9 million	USD $16,519.3 million

Objective	Approach
Capital preservation in adverse markets Pre-fee return of 10%p.a. through the economic cycle	High conviction (20-40 securities), high quality focus Dual-sleeve portfolio construction with dynamic allocation to cash (typically between 0% - 20%) Combined Risk Ratio cap of 0.8^

Strategy Fundamentals[2]	Strategy
Number of Holdings	31
Return on Equity	40
P/E Ratio (1 year forward)	22
Interest Cover	14
Debt/Equity Ratio	103
Weighted Average Market Cap (USD million)	393,246

Top 10 Holdings[2]	Sector[2]	%
Microsoft Corporation	Information Technology	7.3
Visa Inc	Payments	5.6
MasterCard Inc	Payments	4.9
Alphabet Inc	Internet & eCommerce	4.8
McDonald's Corporation	Restaurants	4.5
Yum! Brands Inc	Restaurants	4.4
Intercontinental Exchange Inc	Financials	4.2
Diageo Plc	Consumer Defensive	4.0
Reckitt Benckiser Group	Consumer Defensive	3.9
Lowe's Co Inc	Consumer Discretionary	3.7
	TOTAL:	47.3

3 Year rolling returns[3] (measured monthly)	1 Year	3 Years	5 Years	Since Inception
Against MSCI World NTR Index+				
No of observations	12	36	60	148
Average excess return (% p.a.) (Gross)	-4.2	1.1	1.8	5.1
Average excess return (% p.a.) (Net)	-5.0	0.2	0.9	4.2
Outperformance consistency (Gross)	0%	61%	77%	91%
Outperformance consistency (Net)	0%	53%	72%	88%

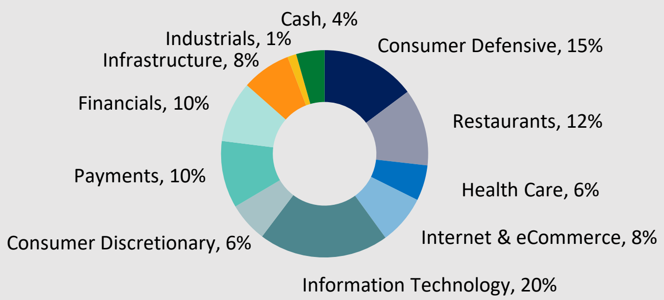
Capital Preservation Measures[4]	3 Years	5 Years	10 Years	Since Inception
Adverse Markets				
No of observations	15	22	33	59
Outperformance consistency	47%	59%	73%	81%
Average return – Strategy (%)	-5.9	-4.7	-3.5	-4.2
Average return – Index+ (%)	-6.4	-5.8	-5.1	-7.5
Down Market Capture	0.9	0.8	0.7	0.6
Drawdown				
Maximum Drawdown – Strategy (%)	-26.6	-26.6	-26.6	-36.0
Maximum Drawdown – Index+ (%)	-25.4	-25.4	-25.4	-54.0

Performance[5]	3 Months (%)	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	10 Years (% p.a.)	Since Inception (% p.a.)
Composite (Gross)	-6.6	-21.1	0.1	5.2	9.0	9.6
Composite (Net)	-6.8	-21.7	-0.7	4.4	8.1	8.7
MSCI World NTR Index+	-6.2	-19.6	4.6	5.3	8.1	4.7
Excess (Gross)	-0.4	-1.5	-4.5	-0.1	0.9	4.9
MSCI World Factor Mix A-Series NTR Index+	-7.0	-16.5	3.7	5.5	8.3	5.7
MSCI Min. Vol. NTR Index+	-6.4	-12.3	-0.3	3.9	7.2	5.3

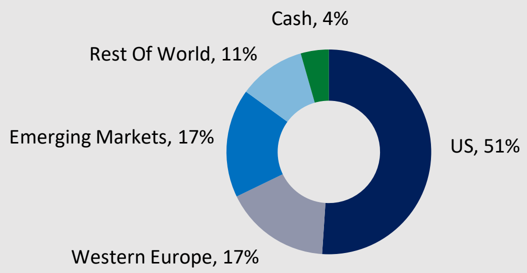
Annual Performance[5] (%)	CYTD	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Composite (Gross)	-26.6	13.9	11.2	29.7	0.4	25.2	4.7	4.2	6.6	30.8	21.6
Composite (Net)	-27.0	13.0	10.3	28.7	-0.4	24.2	3.9	3.4	5.7	29.8	20.7
MSCI World NTR Index+	-25.4	21.8	15.9	27.7	-8.7	22.4	7.5	-0.9	4.9	26.7	15.8
Excess (Gross)	-1.2	-7.9	-4.7	2.0	9.1	2.8	-2.8	5.1	1.7	4.1	5.8
MSCI World Factor Mix A-Series NTR Index+	-22.5	21.4	10.0	27.7	-6.5	21.5	7.9	1.6	7.3	24.5	13.0
MSCI Min. Vol. NTR Index+	-18.0	14.3	2.6	23.2	-2.0	17.3	7.5	5.2	11.4	18.6	8.1

Supplementary Statistical Measures[6]	3 Years	5 Years	10 Years	Since Inception
Turnover	22.3%	19.0%	15.8%	13.5%
Beta	0.8	0.8	0.8	0.8
Tracking Error (% p.a.)	7.4%	6.9%	5.7%	7.0%
Standard Deviation – Strategy	16.2%	14.6%	12.2%	13.8%
Information Ratio	-0.6	0.0	-0.1	0.7

Sector Exposure[2]



Geographical Exposure[2]



[1] Comprised of all Global Strategies.
[2] The data is based on a representative portfolio for the strategy. Sectors are internally defined. Geographical exposure is calculated on a look through basis based on underlying revenue exposure of individual companies held within the portfolio. Exposures may not sum to 100% due to rounding. Refer to the Important Notice below for further information.
[3] Rolling 3-year returns are calculated and rolled monthly for the duration of each period shown. The average excess return is then calculated for each period, with the outperformance consistency indicating the percentage of positive excess returns. Strategy inception is 1 July 2007.
[4] Capital preservation measures are calculated before fees and in USD. An adverse market is defined as a negative 3-month return, rolled monthly, for the MSCI World Net TR USD Index[+], whilst drawdown measures are based on rolling monthly returns. Strategy inception is 1 July 2007.
[5] Returns are for the Global Equity Composite and denoted in USD. Performance would vary if returns were denominated in a currency other than USD. Refer to the GIPS Disclosure section below for further information. Strategy inception is 1 July 2007. Composite (Net) returns are net of fees charged to clients and have been reduced by the amount of the highest fee charged to any client employing that strategy during the period under consideration. Actual fees may vary depending on, among other things, the applicable fee schedule and portfolio size. Fees are available upon request.
[6] Supplementary Statistical Measures Beta, Tracking Error and Information Ratio are calculated before fees in USD against the MSCI World NTR Index[+].
^ Combined risk ratio is a measure of relative beta and relative drawdown to MSCI World NTR USD Index[+]. Please contact MFGAM should you wish for further details on the calculation.
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The MSCI World Index (Net) is a free-float adjusted market capitalization weighted index that is designed to measure the equity performance of 24 developed markets. Index results assume the reinvestment of all distributions of capital gain and net investment income using a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.

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The Global Equity composite is a concentrated global equity strategy investing in high quality companies (typically 20-40 stocks). High quality companies are those companies that have sustainable competitive advantages which translate into returns on capital materially in excess of their cost of capital for a sustained period of time. The investment objectives of the Global Equity strategy are to earn superior risk adjusted returns through the business cycle whilst minimising the risk of a permanent capital loss. The composite was created in December 2011.

To achieve investment objectives, the composite may also use derivative financial instruments including, but not limited to, options, swaps, futures and forwards. Derivatives are subject to the risk of changes in the market price of the underlying securities instruments, and the risk of the loss due to changes in interest rates. The use of certain derivatives may have a leveraging effect, which may increase the volatility of the composite and may reduce its returns.

A copy of the composite's GIPS compliant presentation and/or the firm's list of composite descriptions are available upon request by emailing client.reporting@magellangroup.com.au

The representative portfolio is an account in the composite that closely reflects the portfolio management style of the strategy. Performance is not a consideration in the selection of the representative portfolio. The characteristics of the representative portfolio may differ from those of the composite and of the other accounts in the composite. Information regarding the representative portfolio and the other accounts in the composite is available upon request.

USD is the currency used to calculate performance.

Asset markets have been difficult during 2022 and challenging for investors as many facets have evolved quickly. While worries about inflation, interest rates, geopolitics and recession risks may or may not persist in coming months, we consider this portfolio to be more attractive than other asset classes and more attractive than lower-quality, more speculative and commodity-exposed companies. During the quarter, these macroeconomic concerns gave us the opportunity to deploy more of our cash balance at what we believe are attractive prices. Indeed, as we enter the final 2022 quarter, we see a much larger proportion of Magellan's universe with positive medium-term expected returns than we have seen for years. We are delighted with the quality and diversity of the Magellan Global portfolio and the longer-term prospects for our companies. These are advantaged companies with excellent track records of outsized business returns, skilled management and disciplined capital management.

Market Commentary

September was a quarter marked by uncertainty and significant shifts in sentiment. After a 14% rally from lows in mid-June, global stocks fell for the third consecutive quarter to end September with the Morgan Stanley Capital International World Index down 6.2% in US dollars. The key factor driving markets was that inflation data globally continued to run 'too hot' and thereby signalled to markets that central banks will continue aggressive interest-rate rises. The weaponisation of energy in Europe by Russia added to already rising energy prices in Europe, and US dollar strength continued. At the end of September, new UK Prime Minister Liz Truss announced new spending and tax cuts that lost the confidence of investors and saw a rapid repricing of gilts, which led to liquidity issues for some large UK funds. The Bank of England stepped in to stabilise the situation but the outlook for the UK remains troubling. During the quarter, nine of the 11 industry sectors fell in US-dollar terms. Communications (-12%) fell the most while consumer staples (+2.1%) managed to gain a little.

In the US, the S&P 500 Index fell 5.3% in the quarter as the inflation report for August fanned expectations the Fed would need to raise the cash rate more than expected and keep it higher for longer. While the report showed consumer prices were flat in August (for a 12-month rate of 8.3%), the core measure that strips out food and energy prices jumped a higher-than-expected 0.5% in the month (for a 12-month rate of 6.3%). The Fed has raised the cash rate by 0.75% in June, July and, for the fifth time since this hiking cycle began, in September to between 3% and 3.25%. Another important event for investors was the passing by US Congress of the CHIPS and Science Act and quickly thereafter the Inflation Reduction Act, which contained an estimated US$375 billion in measures to accelerate the energy transition and so President Joe Biden hailed it as the "biggest step forward on climate ever". These policies have widespread implications for many companies and industries and will galvanise change in future investment decisions.

The Euro Stoxx 50 Index fell 3.3% in the quarter as the European Central Bank raised interest rates by 125 basis points, returning them to positive territory. It warned "sacrifice" was needed to tame inflation with eurozone inflation accelerating to a fresh record high, hitting 10% in September. The ECB also unveiled its "transmission protection mechanism" that is designed to stop excessive widening of the spread between sovereign yields in Europe. An energy crisis emerged as flows of gas from Russia to Europe slowed, then stopped, and Europe scrambled to work through the implications of spiking prices and a need for energy rationing as it heads into winter. Italy's government fell and sent the country to a snap election, and the UK also saw in a new prime minister. The Truss government's first new policy announcements for large but unfunded fiscal stimulus including tax cuts and subsidies to help offset huge energy bill increases saw big swings in Sterling and gilts. These moves ultimately led to market intervention by the Bank of England.

Index movements are in local currency. US GDP statistics come from the US Department of Commerce, while US employment and inflation statistics are published by the US Department of Labor. EU economic statistics come from Eurostat. UK statistics are released by the Office for National Statistics.

Strategy Commentary

The portfolio recorded a negative return for the quarter.

The biggest positive contributions came from the investments in Chipotle Mexican Grill, Diageo and Lowe's, three relatively defensive consumer companies that recorded strong operating performances in their most recent results and are seeing upgrades to earnings expectations.

Given widespread falls across the market, the biggest detractors in local-currency terms were the strategy's largest holdings of Microsoft, Alphabet and Visa. There was no material news of note for these companies but the strength of the US dollar is expected to weigh on reported earnings given their multinational businesses and the pressure of rising rates on economic growth will likely be felt by most companies. A new push for increased regulation of credit cards in the US was made and this may have added to caution on Visa.

Stock contributors/detractors are based in local currency terms.

Outlook

2022 is shaping up to be one of those extreme years for investors across almost all, if not all, asset classes. The unprecedented actions by governments and central banks to lock down economies but support us through the pandemic has caused severe dislocations in supply and demand across many sectors. Layer in a Ukraine invasion by Russia, resulting sanctions, and severely reduced energy supplies out of Russia as well as several other extreme events and it is clear why prices of most assets are under pressure. The three-decade-long fall in interest rates has ended and our world must adjust.

Risks are everywhere and the difficulties we are facing rule the narrative. The climate crisis, fragmenting societies, and geopolitical escalations are simply adding to the concerns as Central Banks try to bring inflation back down to acceptable levels. While it is unclear exactly the timeline for bringing inflation down, we can be reasonably confident it will happen given the vigilance of Central Banks to this task. The possibility of recession is the trade-off and this seems highly likely, especially in Europe and China.

But all these things are known (the known unknowns) and investors are adept at pricing for such future risks. So, in our view, we must have courage and dig within our universe to find and invest in companies that have resilient, dependable and indeed even exciting outlooks that are now for sale at depressed prices.

We have taken the opportunity to put more cash to work in equities, which we anticipate can deliver our clients strong double-digit returns over coming years, even if broader indices fall further in the short term. We thank you for the trust you place in us.

Stock Story: ASML

Lithography is the process by which powerful, fast and cheap microchips are made. Advances in how lithography systems imprint electronic circuitry patterns on silicon wafers govern enhancements in microchips and memory.

In more detail, a lithography system is essentially a manufacturing machine whereby light is projected through a blueprint of the pattern to be printed. The system's optics shrink and focus the pattern onto a photosensitive silicon wafer (whereby a wafer is covered with chemicals that react with light). A series of other non-lithography steps are also carried out. To make a microchip, the process is repeated layer upon layer to create the components of the chip including the transistors, which are miniaturised semiconductor devices. The most advanced chips have up to 150 layers. So advanced is lithography, the latest chips are printed at a scale of nanometres, where a nanometre is one billionth of a metre. The A16 processor in the iPhone 14 will contain about 16 billion transistors.

Lithography is so key to making the best microchips, the US stops the company that makes the most advanced of these manufacturing systems from selling its product to China.

That company is ASML. The Netherlands-based group sold 309 lithography systems on the way to earning revenue of 18.6 billion euros in fiscal 2021. The most advanced ASML lithography system today costs about 160 million euros.

ASML, which formed as a venture between Philips and ASMI of the Netherlands in 1984 and listed in 1995, extended its industry leadership in lithography with its development of 'extreme ultraviolet' lithography, which is an advance on its 'deep ultraviolet' lithography system. This system is regarded as the best system for reliably printing transistors on wafers at high volume using a light wavelength of just 13.5 nanometres.

ASML's customers are microchip manufacturers such as TSMC of Taiwan, Intel, Micron, Samsung and SK Hynix of Korea. All semiconductor producers rely on ASML's equipment to produce the most advanced chips. From an investor's point of view, ASML's technology leadership is its core competitive advantage that has given it an 83% stranglehold on one of the world's most crucial industrial systems. Nikon of Japan is ASML's nearest, even a distant, competitor.

Couldn't Nikon or another company invent a lithography system that betters that of ASML? Such questions have always existed but competitors have only fallen further behind over time. ASML's advantage is not in any singular aspect of the lithography system but across the many complex technologies, including the light source, optics, wafer stage, software, and process control, that need to come together in perfect unison. All of this would take incredible effort to replicate.

ASML has also set up a sophisticated production network underwritten by exclusive agreements whereby it outsources the making of components to about 4,000 companies around the globe. Many of the parts are complex. The mirrors in ASML's lithography machines, for instance, are the smoothest structures produced on earth. In fact, they are so flat, if someone expanded a mirror to the size of Victoria, the highest mountain would be 1 millimetre tall.

No rival, even if possessing a better design for a lithography system, could quickly or easily build a similar global manufacturing network. The biggest semiconductor manufacturers in the world have a vested interest in ASML's commercial success.

At the very least, it seems ASML is poised to hold onto its market dominance for the foreseeable future; in recent years, the company has widened its lead over competitors as it achieved double-digit sales growth. The stock is found in the Magellan global portfolio because ASML has the potential to generate excess returns on capital for the foreseeable future.

Even the best-placed companies, however, face challenges. Among threats to ASML, the shrinking of transistors could reach its physical limits in terms of tininess and finesse. If so, it would buy time for rivals to one day catch up to ASML's lithography standards. But somehow microchip-related technology keeps advancing. Another threat is the Chinese government. Beijing understands the strategic worth of microchips and is investing billions of dollars to catch up with the West and is willing to ignore patents to do so. ASML warned in February that an affiliate of a Chinese company it had accused of stealing its trade secrets is marketing products that could infringe on its intellectual property rights. Hence Washington is keen to keep ASML's lithography systems out of China.

ASML, however, has a record of delivering ever-improving lithography machines on time to its customers. If the company keeps doing that, investors will be looked after too.

Sources: ASML Annual Report 2021, company filings, Bloomberg and Dunn & Bradstreet.