# Nanuk New World Fund

# Quarterly Report –December 2017

*The Nanuk New World Fund is a long only equity fund generating its returns from investments in a universe of listed equities exposed to the broad theme of environmental sustainability. The Fund invests globally in companies involved in clean energy, energy efficiency, agriculture, water, waste management, recycling, pollution control and advanced manufacturing and materials. All of these industries are undergoing significant changes as the world tries to reconcile economic growth with longer term sustainability and are a potentially rich and ongoing source of investment returns.*

*The Fund seeks to hold a globally diversified, yet relatively concentrated, portfolio of positions that align with Nanuk's views on security valuation and the evolving trends within these industries. The Fund aims to achieve long term capital appreciation and outperformance of traditional global equity indices while reducing volatility of returns and risk of capital loss through appropriate diversification and risk management strategies.*

### Performance Summary[1] (AUD)

| | 1 Month | 3 Months | 6 Months | 1 Year | 2 Years p.a. | Since Inception[1] p.a. |
|---|---|---|---|---|---|---|
| **Fund Return (%)** | **(2.2)** | **5.3** | **10.3** | **21.2** | **17.8** | **15.8** |
| Benchmark Return[2] (%) | (2.4) | 6.6 | 10.5 | 21.3 | 16.7 | 13.4 |
| Value Added (%) | 0.2 | (1.3) | (0.2) | (0.1) | 1.2 | 2.4 |
| MSCI ACWI Return[3] (%) | (1.4) | 6.1 | 9.1 | 14.8 | 11.5 | 8.1 |
| Value Added (%) | (0.8) | (0.8) | 1.2 | 6.5 | 6.3 | 7.7 |

### Macro and industry commentary

Global equities rose yet again during December to close a standout year. The MSCI All Country World Index rose 1.5% for a total return (including dividends) of 24% for 2017. Regional indices likewise completed strong years, with the US' S&P 500 rising 21.8%; Europe's Stoxx 50, 24.4%; Japan's Nikkei 250, 25.7%; and Hong Kong's Hang Seng index, 40.2%, all quoted on a total return basis in US dollars.

Equity markets rose against a relatively benign economic and political background. The global economy is estimated to have grown at 3.6% in 2017, its fastest rate since 2011. As the US unemployment rate fell to 4% and even the Eurozone's fell below 9% from its high of 12% in 2012, both the Federal Reserve and European Central Bank moved in the direction of monetary policy normalisation following the emergency measures still lingering from the Great Recession of 2008-09. The Fed raised rates 75 basis points and began to unwind Quantitative Easing by beginning a program of asset sales that would reduce the over three trillion dollars acquired during its QE programs. With unemployment still near 9%, the ECB is much earlier in its policy normalisation path, however it too was able to reduce the rate of its QE program, announcing in October that its asset purchases would halve from €60b per month to €30b per month. The Japanese Central Bank however has pledged to maintain its massive quantitative easing program until its inflation targets are met.

*Notes (1) Inception date 2 November 2015 (2) Benchmark return is the FTSE Environmental Opportunities All Share Total Return Index in Australian dollars (3) MSCI ACWI return is the MSCI All Countries World Index Total Return Net Index in Australian dollars*

Politically, Britain's vote to exit the European Union and the election of Donald Trump as US President in 2016 meant 2017 began with fears of further victories by nationalist leaders, particularly in Europe. While several nationalist parties made progress, further outright victories proved beyond them, and indeed in a number of elections nationalists under-performed. Most notable was the French election, where centrist candidate Emmanuel Macron won by over 30 % points. In other major elections, Shinzo Abe of Japan was re-elected, and Angela Merkel appears to have won a fourth term as Chancellor in Germany, though coalition negotiations are ongoing.

Sustainability related equities underperformed traditional global equity benchmarks during December with the Fund's benchmark index, the FTSE Environmental All Shares Total Return Index (+0.5% in USD terms, -2.4% in AUD terms), but out-performed strongly over the full year (+31% in USD terms), outperforming traditional global equity benchmarks such as MSCI ACWI by more than 7%. The Australian dollar appreciated by 3% against the US dollar in December, commensurately reducing AUD denominated returns.

## Industry commentary

The mobility revolution was undoubtedly the star of the show in 2017. Transition of the multi-trillion dollar automotive industry to electric and autonomous driving has been decades in the making and will take decades to fully unfold, however 2017 will be seen as the watershed year in which this revolution was cemented in place. China, India, Britain, France, Norway and the state of California all initiated plans to completely phase out sales of internal combustion engine vehicles between 2025 and 2040. At local level, Paris banned old diesel cars from its streets, while London introduced a £10 daily charge on them. Almost every major auto manufacturer announced large investments in these secular trends. This is exemplified by the world's largest automaker, Volkswagen: reeling from its Dieselgate scandal, Volkswagon began 2017 with a €10b investment plan in vehicle electrification and autonomy. By September, the plan doubled to €20b, and by November 2017 it was €34b. Highlights included the planned development of 300 EV models by 2030 and tenders for more than $50b of batteries. Audi, one of VW's premium brands, announced that the 2018 Audi A8 would be the world's first Level 3 autonomous car in series production. Under set conditions the car will operate without the driver's hands on the wheel nor the need for constant monitoring (i.e, in simple terms, "hands off, mind off").

The electrification revolution spread across other segments of the vehicle industry. Tesla announced a Class 8 heavy truck model, while the city of Shenzhen completed the of its vast 14,500 bus fleet to EV. We also saw clear evidence of reduced investment in legacy technologies. Ford Motor announced a 30% reduction in investment in internal combustion engine powertrains, while Continental, a leading Tier-1 automotive supplier, said the "the last generation" of combustion engines will likely be introduced in Europe in 2023.

Elsewhere the industry continued to see a flood of entrants seeking a piece of the action. Chip giant Intel acquired Mobileye, a leader in autonomous driving software while its competitor Nvidia announced a series of vehicle-focused products as well partnerships with Volkswagen and Uber. Current Fund investments with major exposures to the mobility revolution include Tier-1 suppliers like Continental as well as Valeo (France), US-based Lear Corp and lithium-ion battery material suppliers including Toray and Asahi Kasei in Japan, both leaders in battery separators. New Flyer Industries, another Fund investment, benefits from these secular trends within the bus and coach sub-sector. Other positions held by the Fund during the course of the year included automotive supplier Delphi, a leader in autonomous driving technology now renamed Aptiv, and ON Semiconductor, a leading supplier of automotive semiconductor solutions.

The clean energy revolution was also thematically prominent in 2017. The tally of US conventional (i.e. coal and nuclear) power plants abandoned with construction already underway rose to US$40b as wind, solar and battery storage, as well as natural gas, continue to rise in competitiveness. China halted the development of over 100 coal fired power plants, some of which were already under construction, as solar installations during 2017 in that country totalled more than 50GW of generating capacity. For context, this is more than Australia's total operating generating capacity of all forms. India also cancelled plans for the construction of coal-fired generation and although some capacity was added, it was the least since 2006. Like China, India is moving very swiftly to adopt renewable energy particularly solar to meet its future needs.

Battery storage had its first "prime time" moments, responding to crises in California, South Australia, and Puerto Rico. In South Australia, Tesla installed a 100MW system, 3 times bigger than any previous installation globally. Just as impressive was the six month timeframe from tender to completed installation, remarkable in a utility industry which is historically used to multi-year timeframes. In Puerto Rico, the carnage from Hurricane Maria in September has left, at the time of writing, almost half the population lacking power. The outage is already twice as bad as the previous worst in US history in terms of customer-hours lost, and coverage isn't expected to be restored before May 2018. This has led to efforts to redesign the island's grid, in which battery storage will play a prominent role alongside renewable energy sources.

In renewable energy, the widespread shift towards the use of auction-based tender processes instead of fixed subsidies drove significant reductions in the cost of solar and wind power around the world through 2017. This dynamic was particularly evident in the wind industry, to the misfortune of manufacturers such as Vestas, Gamesa, Nordex and Senvion, which all faced increasing margin pressure during the year despite significant industry consolidation. These challenges didn't stop the solar industry from achieving another year of double digit volume growth however, with China alone installing over 50GW – an almost unimaginable figure just a few years ago. The Fund approached investing in these industries cautiously but profited during the year from selected investments in both wind and solar. The Fund's current investments in this space include SolarEdge, the leading inverter manufacturer, as well as SunRun, the US' leading residential solar installer.

The robotics industry also enjoyed a strong 2017. Traditional factory automation companies benefitted from the positive macroeconomic environment, with double digit rises in indicators of machine tool investment as businesses refreshed their equipment, after from a weak 2016. We also saw structural growth across a series of emerging robotics applications. Most relevant to the Fund was Ocado Plc's continued success in online grocery business based on its robotics-based fulfilment model, in which groceries are distributed directly to customers' homes from centralised warehouses in which groceries are picked primarily by small armies of robots. Ocado achieved another year of double digit growth, and also delivered its first major technology licensing agreement beyond its home market of the UK, with Groupe Casino, a leading French retailer. In medical robotics, US-based Intuitive Surgical also extended its run of double digit growth as hospitals around the world continue to adopt its technology. In the consumer segment, robot vacuum cleaners had a breakout year, with the US industry growing as much as 45%, and the year ending to reports of widespread stock outs as retailers struggled to cope with surging demand. The Fund is exposed to all these sectors, and they will be the subject of our upcoming webinar in February. The rise of robotics, advanced manufacturing and industrial automation is expected to continue in 2018 as new technologies drive adoption in new applications.

A less prominent area of the Fund's focus is advanced materials, an area which had a quiet 2017 but appears likely to attract greater attention and demonstrate greater growth in 2018. This area covers both industrial and consumer applications. Industrial applications are typically driven by companies' need to improve the efficiency of their products and processes. A prime example of this is the use of carbon fibre in aerospace, saving 20% weight even against advanced aluminium alloys. Carbon fibre demand growth moderated in 2017 due to a production slowdown at Boeing, with associated supply chain destocking impacting manufacturers during the year. Boeing is set to return to production growth in 2018 and accelerate further in 2019, and the industry's prospects are set to improve with it. The Fund is exposed to this through investments in Toray and Hexcel, two leading manufacturers of carbon fibre. Demand for advanced materials in the consumer space is driven by consumers' desire for sustainability in the products they use, be it packaging in food and beverage, or textiles in clothing. Industry giants including Danone and Coca Cola have publicised their interest in biomaterials, while the world's two most valuable clothing brands, H&M and Zara, both now have sustainability collections. In December the Fund re-invested in Austrian manufacturer Lenzing AG. Lenzing was one of the Fund's top contributors in 2016 but the position was exited early in 2017 following strong performance and rising concerns of a cyclical downturn in its commoditised products. Following a significant correction in both the share price as well as fundamentals, the Fund re-entered the position. Lenzing's flagship product, Tencel, is a wood based textile whose production uses ~95% less chemicals than competing materials. Both H&M and Zara publicise their usage of this trademarked product in their sustainability collections, and we consider the company well positioned as demand for these products grows.

2017 was a breakout year for another 'new world' technology - Augmented Reality (AR). AR involves projecting digital images onto a person's view of the real world. Apple CEO Tim Cook has said it will "change everything". The technology is still in its infancy, but already Boeing is using AR to allow manufacturing workers see a projection of what they're meant to be assembling, improving productivity; while Ikea's Place App allows customers to project its furniture on their homes, to "see" how it matches. As with any major emerging technology, AR has been years in the making and has seen some false starts. Google Glass was was launched in May 2014, and discontinued in January 2015. 2017, however, saw a step change, led by Apple. In July, it launched its ARKit, supporting development of AR apps on the iOS platform. In November, the iPhone X was launched with Face ID, where the phone unlocks by sensing a detailed image of the user's face - using the 3D sensing technology that is central to AR. Apple's AR launches proved popular, and quickly spurred imitation. Google released ARCore as the Android platform's response ARKit, while Chinese smartphone brands Oppo and Vivo already have imitations of Apple's Face ID feature; and over 1,000 AR apps are now available. AR is still waiting for its equivalent of a Model T Ford or iPhone, a product that catalyses mass adoption. But the scale of investment from Apple and Google, other tech giants including Facebook and Microsoft, and the army suppliers that supports them, indicates this technology is past the point of no return and it's a question of "how soon", not if, mass adoption is achieved. Although the initial hype and large volume adoption is likely to be in consumer products like the iPhone, the scope for usage in industrial and commercial applications is significant – and the technology has the potential to deliver significant efficiency gains. The Harvard Business Review recently published an excellent article on augmented reality, available here ( https://hbr.org/2017/11/a-managers-guide-to-augmented-reality ) The Fund's exposure to this technology includes two leading suppliers of 3D sensing components. AMS is a sensor company based in Austria. It has a breadth of capabilities but is best known today as the leading provider of the micro-optics system that enable the iPhone X's Face ID capabilities. Lumentum is the leading provider of the specialist lasers that provide the illumination that 3D sensors then sense.

A final note on government policy. A concern held by many at the outset of 2017 was that Trump's pre-election pro-fossil fuel and anti-environmental agenda might derail progress made in global climate change agreements and slow the transition towards more sustainable technologies. As it turned out, Trump's isolationist approach galvanised the commitments of many other countries and indeed states within the US. The most recent rebuff to the President's agenda was the Federal Energy Regulatory Commission's (FERC's) rejection of the President's and Energy Secretary's support of nuclear and coal power plants struggling in competitive electricity markets. More notable was that 4 or the 5 FERC members were Trump appointees.

## Fund Commentary

The Fund posted a 21.2% return in 2017, broadly in line with its benchmark index but strongly outperforming the MSCI All Country World Total Return Index (by 6.5%). The Fund outperformed its benchmark index by 0.2% in December, but was down 2.2% in absolute terms. AUD strength was the primary reason for December's pullback, with the Fund up 0.8% in US dollar terms.

The largest contributors to monthly performance included North American transit bus manufacturer New Flyer Industries, UK on-line grocer and logistics business Ocado and robotic appliance manufacturer iRobot.

The Fund's annual return was supported by contributions from a very broad range of sectors, with the top contributing positions including the Dutch networks and industrial solutions business TKH Group, the Swedish high tech industrial group Indutrade, US organic grocer Sprouts Farmers Markets, US waste management business Waste Management Inc and Japanese speciality chemicals company Asahi Kasei. The Fund also generated good returns from areas such as solar (SunRun and SolarEdge), automotive businesses exposed to electrification and autonomy, building energy efficiency, industrial lasers, offshore wind energy and high-speed rail.

Entering 2018 the Fund's largest sector exposures are in composite materials, waste management, high speed rail, automotive electrification and autonomy, building energy efficiency and industrial automation. The Fund remains well diversified from both a sector and geographic perspective, and we believe is well positioned to continue to benefit from investments in the secular themes of environmental sustainability and resource efficiency.

### Historic Returns[2] (AUD)

| % | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | YTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | - | - | - | - | - | - | - | - | - | - | (0.7) | (0.3) | (1.0) |
| 2016 | (4.5) | (0.0) | 2.0 | 2.5 | 7.2 | (5.2) | 3.6 | 0.9 | 0.0 | (1.3) | 4.5 | 4.8 | 14.5 |
| 2017 | (2.9) | 0.5 | 3.6 | 5.4 | 5.3 | (1.9) | (1.7) | 1.2 | 5.3 | 5.4 | 2.2 | (2.2) | 21.2 |

### Fund Details

| | | | |
|---|---|---|---|
| Fund Name | Nanuk New World Fund | Currency | AUD |
| Type | Global Equity | Subscriptions | Daily |
| Domicile | Australia | Minimum Subscription | AUD 50,000 |
| Investment Manager & Trustee | Nanuk Asset Management Pty Ltd | Redemptions | Daily |
| Administrator & Custodian | RBC Investor Services Trust | Notice period | 1 Day |
| Inception | 2 November 2015 | Buy-Sell spread | 0.25% |
| Management Fee | 0.8% | Total management costs | 1.2% |

[2]Returns are calculated net of all fees and expenses and on the basis of a shareholding since inception (2 November 2015).

## Contact Details

| Investment Manager | Administrator |
|---|---|
| Nanuk Asset Management Pty Ltd | RBC Investor Services Trust – Registry Operations |
| Level 8, Kyle House, 27-31 Macquarie Place | GPO Box 4471 |
| Sydney NSW 2000, Australia | Sydney NSW 2001 |
| Tel: +61 2 9258 1600 | Tel: +61 2 8262 5000 |
| Fax: +61 2 9258 1699 | |
| Email: contact@nanukasset.com | |
| www.nanukasset.com | |

## Legal Notice

*Nanuk Asset Management Pty Ltd is an AFS Licensee, (AFS License number 432119). Whilst the information contained in this report has been prepared with all reasonable care, Nanuk Asset Management Pty Ltd (Nanuk) accepts no responsibility or liability for any errors, omissions or misstatements however caused. The information is not a personal advice. This document has been prepared without taking into account of your objectives, financial situation or needs. The fact that shares in a particular company may have been mentioned should not be interpreted as a recommendation to buy, sell or hold that stock. This is general securities information and is not intended to be a securities recommendation. Investors should be aware that past performance is not indicative of future performance. Returns can be volatile, reflecting rises and falls in the value of underlying investments. Potential investors should seek independent advice as to the suitability of the Fund to their investment needs. The information in this document is intended only for the person or entity to which it has been provided and may contain confidential and/or privileged material. In accepting receipt of the information you agree that you and/or your affiliates, partners, directors, officers and employees, as applicable, will keep all information strictly confidential. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information is prohibited.*