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Garry Laurence
portfolio manager -
global equities
Perpetual Investments

Automating the future

Compelling investment opportunities can emerge from technological disruption and the manufacturing industry is a good case in point. Rather than people working the assembly line, picking goods from warehouse shelves or testing the final product, robots and automated controllers increasingly undertake this work. Next gen robots – or cobots – have been developed to allow human and machine to work collaboratively.

The number of industrial robots being supplied by 2020 will be approximately 521,000, an increase of 71% on 2016 numbers. Between 2017 and 2020, it's estimated over 1.7 million new industrial robots will be installed in factories around the world, which, as illustrated in figure one, represents a compound annual growth rate (CAGR) of 15% per annum.

This growth in automation has several winners. For companies implementing automation, profit increases to the extent they can replace workers with mechanisation and robotics. The business often experiences better asset utilisation because they get more sales from existing assets, which in turn increases profitability. For those businesses providing the solution, they'll benefit from this significant growth, estimated to be worth US\$13.1 billion in 2016 and given the CAGR of 15%, will continue to escalate.

In the Perpetual Global Share Fund, we have been investing in companies that benefit from this global shift to automated factories and own two stocks that we believe will continue to benefit from this trend – Mitsubishi Electric and Siemens.

Mitsubishi Electric

We like to invest in businesses at the forefront of changing technological trends. For decades, Mitsubishi Electric has delivered the cutting edge of

factory automation and has provided a wide variety of products since its first hit product, an electric fan for consumer use, was invented in the 1920s.

In the 1930s, the company started manufacturing and maintaining elevators, escalators and electric power generation equipment. In the 1960s and 1970s, Mitsubishi Electric extended its reach internationally, developing advanced air conditioning systems, automobile electronics and nuclear power generation. By 1981, it commenced production of industrial robots.

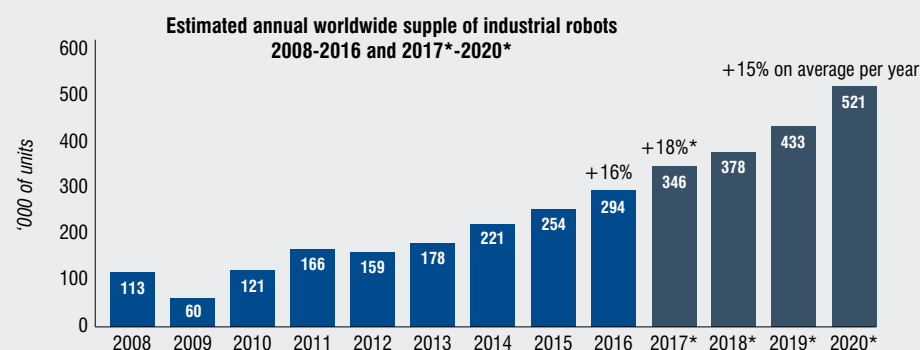
Today, Mitsubishi Electric is a global leader in the supply of factory automation components and systems. It has demonstrated sound understanding of the challenges faced by their customers and has continued to apply its advanced engineering technologies, systems and solutions to meet customer needs.

Mitsubishi Electric manufactures and sells Programmable Logic Controllers (PLCs), AC servo motors, human machine interfaces, inverters, laser processing machines and small size Scara robots. It was the first company in the world to mass produce motors and controllers for electric power steering to assist driver steering.

Importantly in this agile world, Mitsubishi Electric's technology enables industrial robots to achieve fast, human-like nimble assembly; artificial intelligence (AI) technology is employed to develop a fast force-feedback control algorithm for industrial robots. Going forward, Mitsubishi Electric will continue applying its proprietary AI technology to develop intelligent industrial robots and control algorithms for faster and lower-cost assembly systems.

Importantly, this technology will enable factories to become more efficient and we expect demand over the next decade to continue to grow.

Figure 1. Robot supply growth



*forecast. Source: IFR World Robotics 2017

If you're the type of investor who is averse to change, brace yourself. According to the Innosite 2018 Corporate Longevity Report, around half of the stocks on the S&P500 today will no longer be on the list in 10 years. That is a dramatic shift of company fortunes driven mainly by one thing: the rise of automation.

Automation is not new. What's new is the use of Artificial Intelligence (AI) and so-called 'cobots' to assemble products, for example.

In this issue, we asked Garry Laurence, portfolio manager – global equities at Perpetual Investments, to explain how this impacts the fund's portfolios. He talked about key manufacturing research and used Mitsubishi Electric and Siemens as examples of companies that have capitalised on today's wave of digital disruption. Read this article to find out more.

Michelle Baltazar

Michelle Baltazar
Director of Media & Publishing



The quote

Between 2017 and 2020, it's estimated over 1.7 million new industrial robots will be installed in factories around the world.

Siemens

Equally, Siemens has a long history of innovation, dating back to 1847; we continue to be impressed by its ability to grow its automation and software solutions businesses.

Siemens is the global leader in automation hardware and product lifecycle management (PLM) software. It continues to outgrow its discrete automation peers, with organic order growth accelerating to 17% in the first quarter of 2018. Twenty-nine of the 30 top automakers use Siemens' PLM software, and Siemens has an 18% market share of the global PLM industry. They are also a leader in industrial automation hardware with a \$30 million automation system installed at the firm's base.

Some industrial conglomerates have made bad acquisitions that have destroyed shareholder value over the past few years, like General Electric; Siemens on the other hand, has been making value accretive acquisitions in the automation software industry over the past decade. It most recently spun out its healthcare division, 'healthineers', to give that business greater autonomy to accelerate its growth trajectory. We have been impressed with management's capital management and strategic decisions over the past few years and expect the company to continue to deliver formidable growth into the foreseeable future.

Few companies are immune to disruption. A recent longevity forecast of S&P500 companies suggests the average tenure on the S&P500 list will shrink over the next decade. The research found that approximately 50% of current S&P500 companies will be replaced over the next 10 years.

Digital disruption will continue to impact a range of industries in the future. As companies across all sectors contend with disruption and race to embed appropriate technology, the key for investors is to identify those businesses that are best placed to benefit. **FS**

¹ International Federation of Robotics, World Robotics 2017 Industrial Robots.
² Innosite 2018 Corporate Longevity Briefing www.innosight.com/insight/creative-destruction/. This information has been prepared by Perpetual Investment Management Limited (PIML) ABN 18 000 866 535, AFSL 234426 for financial advisers only. To the extent permitted by law, no liability is accepted for any loss or damage as a result of any reliance on this information. The information is believed to be accurate at the time of compilation and is provided in good faith. This document may contain information contributed by third parties. PIML does not warrant the accuracy or completeness of any information contributed by a third party. Any views expressed in this document are opinions of the author at the time of writing and do not constitute a recommendation to act.



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