

Automation and robotics

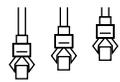
Longer Term Investments (LTI)

The manufacturing industry has a history of being able to re-invent itself. Whether in the first industrial revolution of steam-generated power, or the next revolution supported by electric power, the industry has found ways to boost productivity. Smart automation will power the fourth industrial revolution, combining the innovation in industrial and IT processes to drive global manufacturing productivity gains.

Projections and opportunities

Revenue growth

Based on our market definition, the automation market currently has a size of USD 177.5bn. Driven by several structural drivers, we expect the automation industry's average revenue to grow in the mid-to-high single digits.



177.5bn

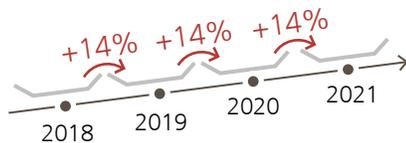
Automation market size

Source: UBS GWM CIO, 2018



Average annual growth

For 2018–2021, the International Federation of Robotics (IFR) expects 14% growth on average a year.



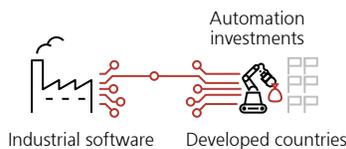
Source: International Federation of Robotics (IFR).

Emerging markets (EM)

We think EM are one of the most promising growth themes. In EM, robotics usage is still far behind developed countries, while the need to drive productivity gains, rising wages and the size of the manufacturing sector make it an attractive region for automation equipment.

Digitalization

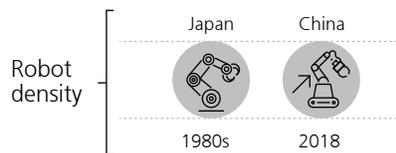
We expect the rising digitalization of the manufacturing sector (industrial software) to lead to a new wave of automation investments in developed countries.



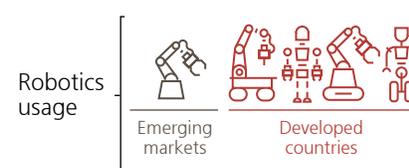
Source: UBS GWM CIO, 2018

Still room to grow

Despite strong growth in robots over recent years in China and other EM, the potential remains significant. In terms of robot density, China appears to be at a level comparable to Japan in the 1980s



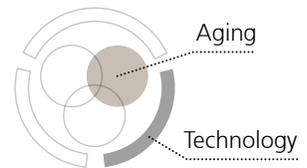
Source: International Federation of Robotics (IFR). UBS GWM CIO, 2018



Source: UBS GWM CIO, 2018



Automation and robotics investment properties



○ Influencer ⊗ Key drivers



Near-term drivers

- Improving leading indicators
- Higher capex
- Higher industrial production



Sustainable investing impact

- Industrial automation
- Robotics technology
- Industrial software



Impact investing (UN SDGs)

- SDG 12: Responsible consumption and production

Alexander Stiehler, CFA, Analyst, UBS Switzerland AG; Sundeep Gantori, CFA, CAIA, Analyst, UBS AG; Kevin Dennean, Technology Equity Sector Strategist Americas, kevin.dennean@ubs.com, UBS Financial Services Inc. (UBS FS)

This report has been prepared by UBS Switzerland AG, UBS AG and UBS Financial Services Inc. (UBS FS). Please see important disclaimers and disclosures at the end of the document.

To learn more contact your financial advisor or go to: ubs.com/lti

