

Artificial intelligence, or the evolution of thought



→ [Blog entry \(DE\)](#)

Products and services are becoming increasingly 'smart' thanks to artificial intelligence, which is advancing rapidly and will soon find its way into almost all areas of our lives. Investors can profit from this trend.

Is artificial intelligence (AI) something that only works in science fiction movies? Not at all. Machine learning algorithms are steadily gaining traction in virtually all sectors.

Multi-talented Watson

IBM's Watson supercomputer can do more than just beat the human champions of the TV quiz show "Jeopardy!". The multi-talented machine is also better than doctors at diagnosing cancer. At the most recent World Economic Forum in Davos, IBM CEO Ginny Rometty explained that Watson was able to match 100% of doctors' diagnoses but actually provided better treatment recommendations in 30% of cases.

Another sign of a bright future for AI is the fact that more and more investors are getting involved in funding and acquisitions in the segment. According to data provider CB Insights, venture capital investors alone put more than USD 5 billion into companies that deal with AI in some form during 2016, representing a year-on-year increase of 61%.

AI driving economic growth

PwC's study "Sizing the prize: What's the the real value of AI for your business and how can you capitalise?" (June 2017) predicts that AI will add USD 15.7 trillion or 14% to the global economy by 2030. This is more than the combined economic output of India and China. PwC concludes that humans and machines can simply do more together and that, as a result, AI is not the threat many perceive it as being. Will it lead to job losses? In some traditional occupations, certainly. At the same time, however, it will open up new opportunities. Everything that has already gone digital will now go smart. The

digitalization of manufacturing (Industry 4.0) has demonstrated the benefits this can bring, such as enhancing Switzerland's competitiveness despite its high wages. As well as making production lines smarter, companies can also use AI to improve product quality. Self-driving cars are a good example of how AI can add value to traditional products, illustrating the kind of paradigm shift consumers and society as a whole can expect.

"AI will trigger massive technological growth and cultural change."

Masayoshi Son, founder, Chairman and CEO of Japan's SoftBank (fiercewireless.com, 27 February 2017)

Trillion-dollar AI market

AI is well on the way to becoming a serious growth driver for a wide range of sectors and a trillion-dollar market in its own right.

Given its fast pace of development, it stands to gain importance in a portfolio context because it offers both attractive return prospects and diversification benefits relative to classic investments. Investors might thus be interested in adding AI investments such as the Solactive Artificial Intelligence Performance Index to their portfolios. This new barometer covers the entire AI value chain, with 14 of its 20 constituents coming from the hardware platforms, software platforms, applications and Big Data subsectors. The index concept and its key selection criteria are outlined on the next page.

Rigorous selection of 14-20 constituents

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The AI index constituents are chosen as follows on the twice-yearly selection date:

- 1. Selection pool:** companies with significant revenue and investments in artificial intelligence (software and hardware platforms, Big Data and applications)
- 2. Liquidity filter:** market capitalization ≥ EUR 750 million and average daily trading volume ≥ EUR 1 million over the past three months
- 3. Criteria for awarding points:**
 - a. Free cash flow in the previous financial year
 - b. Sales growth over the last five financial years
 - c. Research and development spending in the previous financial year
 - d. Profit margin in the previous financial year
 - e. Cash position in the previous financial year
- 4. Points** are awarded in line with the value for each criterion, i.e. a higher value equals more points (see [index guidelines](#) for details).
- 5. The total score** for a company is calculated by adding together its points for criteria a-e.
- 6. In descending order**
- 7. Weighting:** at least 2-5 or 5-10 stocks in each relevant sector → final index composition: 14-20 stocks

Index Committee: Solactive and Thomas Rappold determine the number of stocks in each sector in line with the sector's economic significance.

The index is adjusted twice a year. Dividends are included in the index performance.

Key product data	VONCERT Open End on the Artificial Intelligence Performance Index	
Underlying	Solactive Artificial Intelligence Performance Index	
Valor / symbol	3773 7246 / ZSLAJV → Product details	3773 7247 / ZSLAIV → Product details
Issue price	CHF 101.50 (CHF 1.50 front-load fee included)	USD 101.50 (USD 1.50 front-load fee included)
Spot reference price	USD 100.00 (index level)	USD 100.00 (index level)
Initial fixing / payment date	18/09/2017 / 25/09/2017	18/09/2017 / 25/09/2017
Management fee	1.2% p.a.	1.2% p.a.
Term	Open end	Open end
Subscription period	Up to 15/09/2017 (4:00 p.m. CET)	Up to 15/09/2017 (4:00 p.m. CET)

Issuer / guarantor: Vontobel Financial Products Ltd., DIFC Dubai/Vontobel Holding AG, Zurich (Moody's A3). SSPA designation: tracker certificate (1300). Listing: SIX Swiss Exchange. Index provider: Solactive AG. **Legal information on the VONCERT:** SSPA product type: tracker certificate (1300), basically tracking the performance of the underlying. When investing in a VONCERT, the same risks must essentially be taken into account as for a direct investment in the underlying, in particular the related foreign currency, market and price risks. VONCERTs do not yield current income and have no capital protection.

Initial composition of the equally weighted Solactive Artificial Intelligence Performance Index

Underlying	Sector	Country
Alibaba Ltd.	General retailers	USA
Alphabet Inc.	Internet search engines/software	USA
Amazon.Com Inc.	General retailers	USA
Baidu Inc.	Internet search engines/software	USA
BlackRock Inc.	Investment product management	USA
Boeing Co.	Aircraft manufacture	USA
Delphi Automotive Plc.	Automotive interior/safety/electronic equipment	USA
Facebook Inc.	Communication/collaboration content sites	USA
Intel Corp.	Microprocessors (MPUs)/semiconductors	USA
Microsoft Corp.	General & mixed software	USA
Netflix Inc.	Media downloads & streaming/digital content websites	USA
NVIDIA Corp.	Video & multimedia/semiconductors	USA
Qualcomm Inc.	Communication/semiconductors	USA
Salesforce.com Inc.	Miscellaneous CRM software	USA
SAP SE	General enterprise management software	Germany
Softbank Corp.	Asia (ex China) wireless services	Japan
Splunk Inc.	Business intelligence software	USA
Tableau Software Inc.	Business intelligence software	USA
Tencent Holdings Ltd.	Multi-purpose home & office software	Hong Kong
Workday Inc.	Enterprise resource planning software	USA

Source: Solactive, Thomas Rappold (investment advisor for the Solactive Artificial Intelligence Performance Index)

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