

# Solactive Global Semiconductor Leaders Index

Semiconductors – the heart of digitalization

Platforms & Services



# Why semiconductors are the heart of digitalization

May 2021

Semiconductor chips can be found in nearly every electronic product ...



... and form the nerve center of emerging technologies:

**5G**

**Artificial  
intelli-  
gence**

**Internet of  
Things**

**Augmented  
reality**

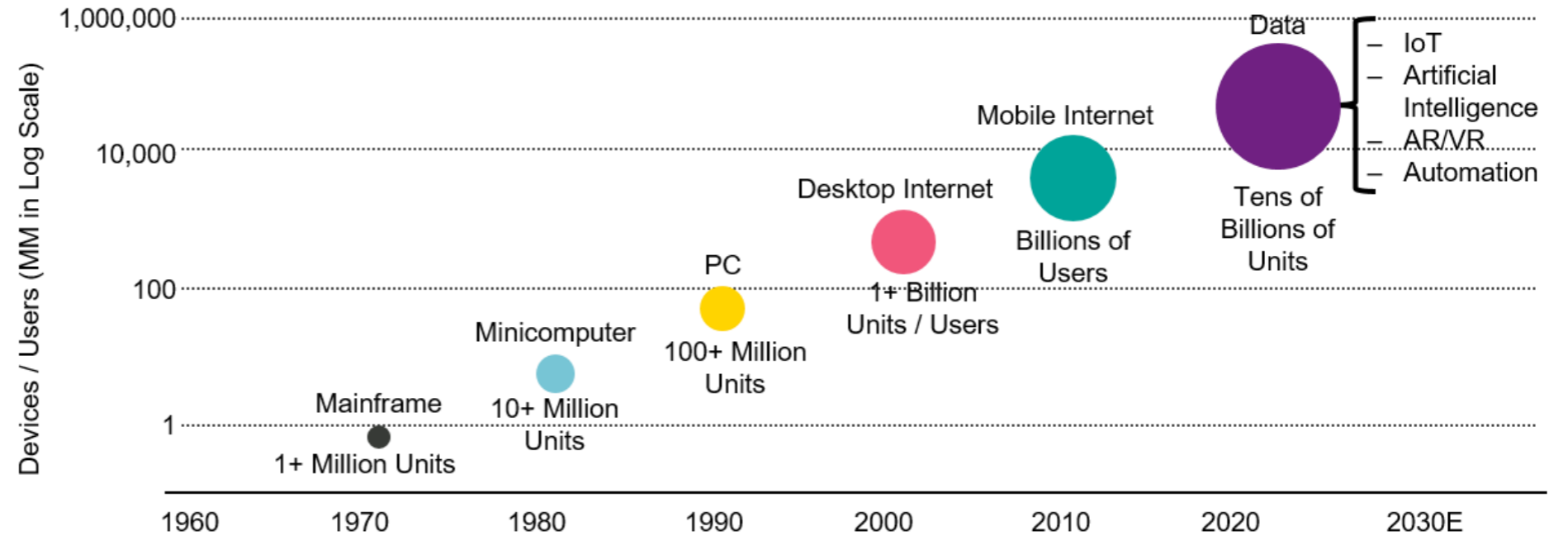
**Cloud  
computing**

## We are at the beginning of a new computing age

May 2021

Semiconductor chips control **electrical currents** to process, store and transfer data. Alongside tech giants such as Apple, Google and Amazon, however, **semiconductor companies** are often overlooked as their work is more “backstage.” Yet they are at least as important for the digital economy of the 21st century.

### Growth drivers of computing power over time, 1960–2020E

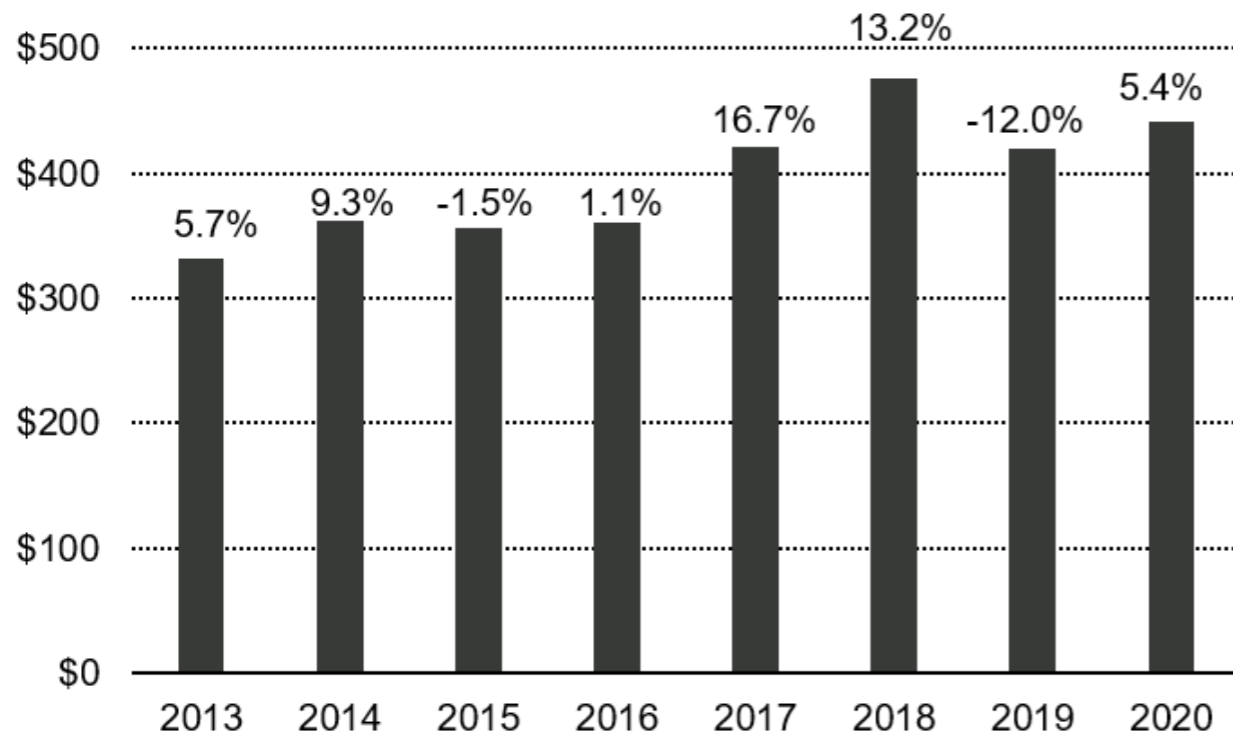


## The 450-billion-dollar industry

May 2021

The **growth story** of the semiconductor industry is arousing significant interest among investors. Global semiconductor sales have grown more than twice as fast as global GDP historically, transforming the sector into the 450-billion-dollar industry it is today.

### Semiconductor industry: sales trend in billions of dollars

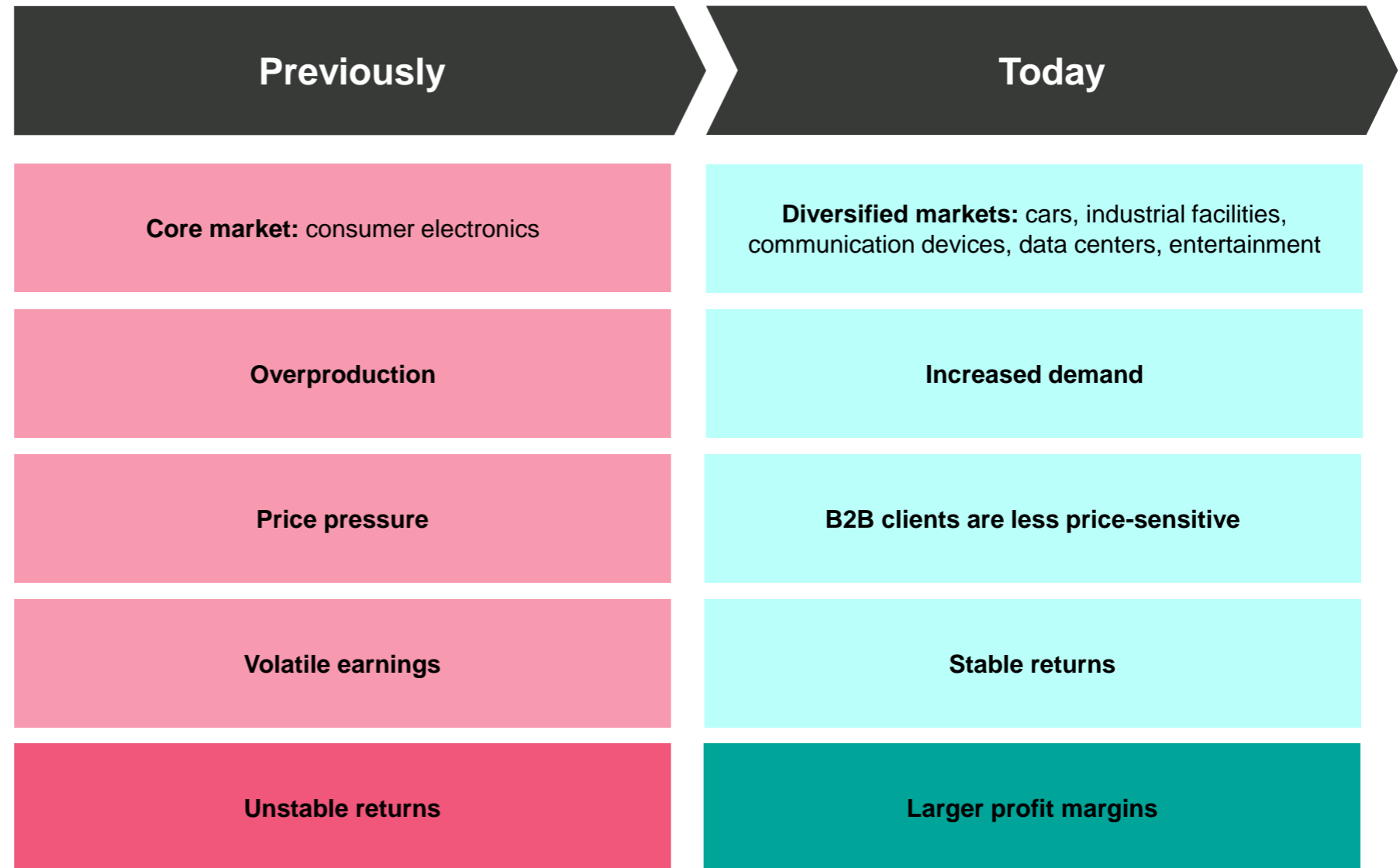
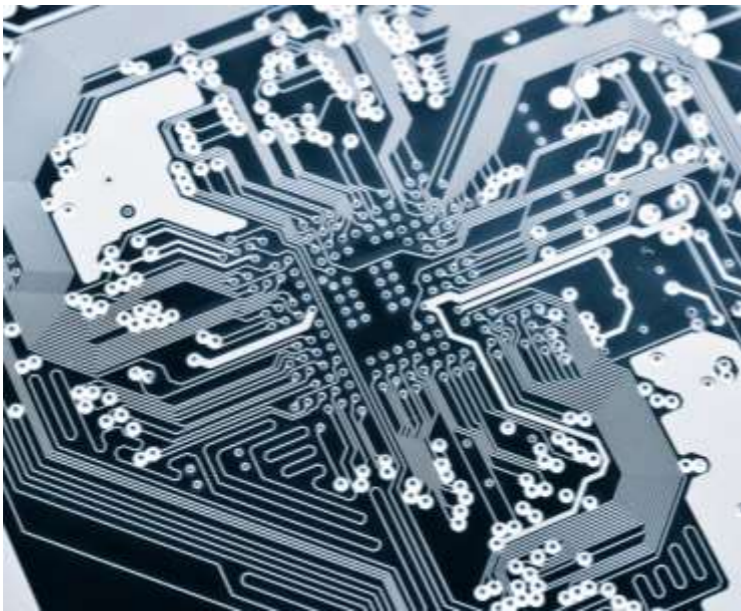


#### SEMICONDUCTOR REVENUE MILESTONES

\$50 billion	1989
\$100 billion	1994
\$200 billion	2000
\$300 billion	2010
\$400 billion	2017
\$450 billion	2020






## B2B clients bringing greater stability

The semiconductor industry was seen as volatile and unprofitable until the 2010s. For a few years now, however, stable and attractive margins have been observed. Why is this?



# The Solactive Global Semiconductor Leaders Index tracks 20 stocks of companies in the semiconductor sector

## Index concept

 <p>UNIVERSE</p>	<p>Shares listed on the stock exchange of one of the following countries: Australia, France, Germany, Japan, Netherlands, Switzerland, UK, USA.</p>
 <p>LIQUIDITY &amp; SIZE CRITERIA</p>	<ul style="list-style-type: none"> <li>• Average market capitalization <math>\geq</math> USD 5 billion on the respective selection day</li> <li>• Daily volume <math>\geq</math> USD 2 million during the past three months</li> </ul>
 <p>THEMATIC &amp; FINANCIAL CRITERIA</p>	<ul style="list-style-type: none"> <li>• Companies must demonstrate significant commitment to the semiconductor sector. Each company is rated with a scoring model that reflects this exposure.</li> <li>• The scoring model is based on a Solactive algorithm that analyses and evaluates publicly available information such as news, company publications and financial statements.</li> <li>• The following products and/or services are considered appropriate for the index topic: - Development and manufacture of computer products and technologies such as graphics processors, chipsets, professional GPUs and computer peripherals; - Development and manufacture of integrated circuits, system software and data infrastructure solutions; - Design, development and marketing of semiconductor products and components for applications in various sectors (automotive, industrial, personal electronics, etc.).</li> </ul>
 <p>STOCK SELECTION</p>	<ul style="list-style-type: none"> <li>• The shares of the 20 companies with the highest scores are reflected in the Solactive Global Semiconductor Leaders Index.</li> <li>• The weighting of each index member is 5 % at the starting point. The index currency is USD.</li> </ul>
 <p>REBALANCING</p>	<ul style="list-style-type: none"> <li>• Rebalancing is carried out semiannually</li> <li>• Index members are checked against liquidity, size, theme and financial criteria and replaced if necessary</li> <li>• The weighting of the index members is reset to 5 %</li> <li>• No extraordinary rebalancing</li> </ul>

Source: Solactive. The Solactive Semiconductor is an index of Solactive AG and is calculated, published and distributed by the company. The index can be found at: [www.solactive.com](http://www.solactive.com)



# Participate in Semiconductors with a transaction

## Solactive Global Semiconductor Leaders Index

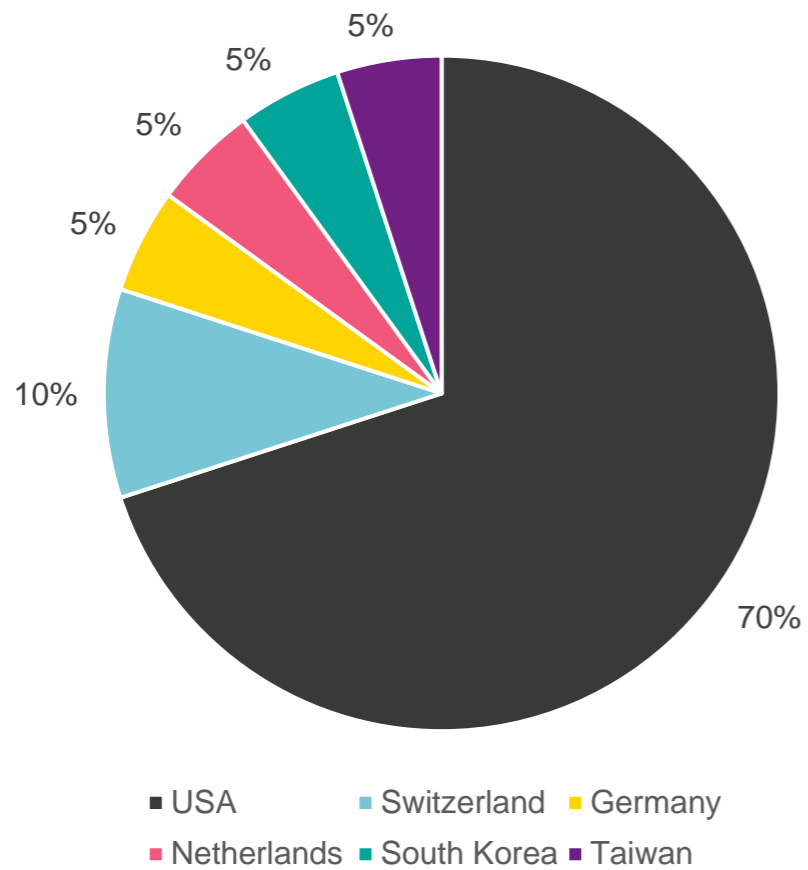
May 2021

### Initial index composition

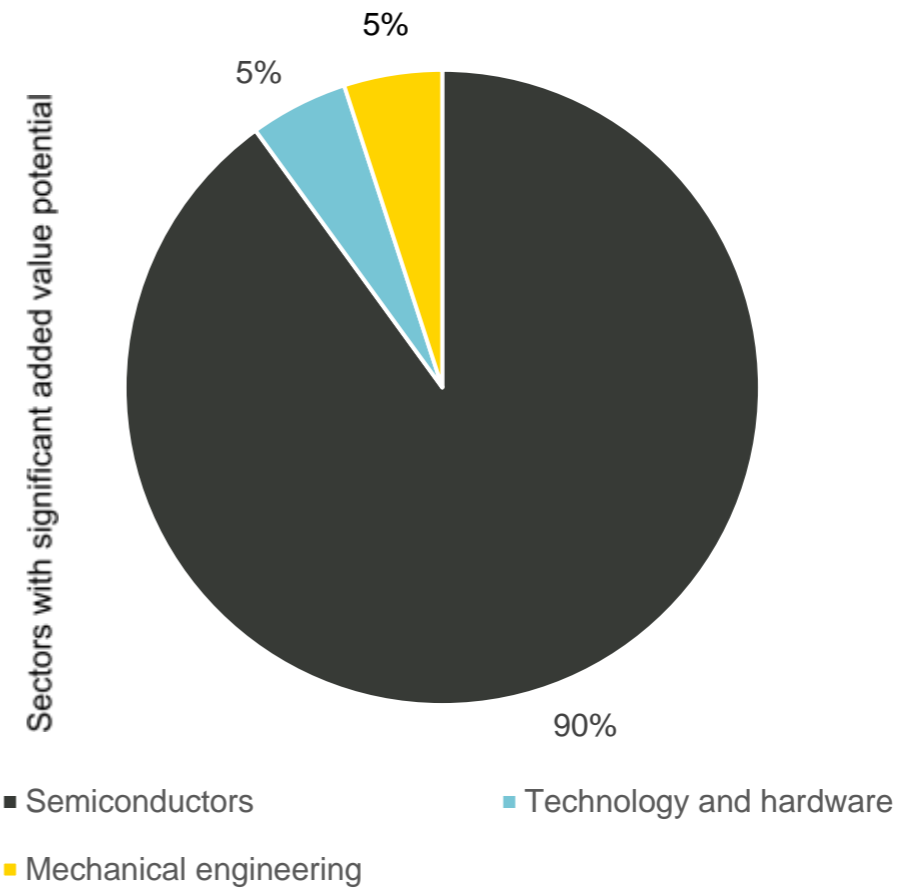
Company	Sector	Currency	Country	Weighting
Applied Materials, Inc.	Semiconductors	USD	USA	5 %
Advanced Micro Devices, Inc.	Semiconductors	USD	USA	5 %
ASML Holding N.V.	Semiconductors	EUR	Netherlands	5 %
Broadcom Inc.	Semiconductors	USD	USA	5 %
Infineon Technologies AG	Semiconductors	EUR	Germany	5 %
Intel Corp.	Semiconductors	USD	USA	5 %
KLA Corp.	Semiconductors	USD	USA	5 %
Lam Research Corp.	Semiconductors	USD	USA	5 %
Microchip Technology, Inc.	Semiconductors	USD	USA	5 %
Marvell Technology, Inc.	Semiconductors	USD	USA	5 %
Micron Technology Inc.	Semiconductors	USD	USA	5 %
Maxim Integrated Products	Semiconductors	USD	USA	5 %
NVIDIA Corp.	Semiconductors	USD	USA	5 %
Qualcomm, Inc.	Semiconductors	USD	USA	5 %
Samsung Electronics Co., Ltd.	Technology and hardware	USD	South Korea	5 %
STMicroelectronics N.V.	Semiconductors	EUR	Switzerland	5 %
Taiwan Semiconductor Manufacturing Company, Ltd.	Semiconductors	USD	Taiwan	5 %
Texas Instruments, Inc.	Semiconductors	USD	USA	5 %
VAT Group AG	Mechanical engineering	CHF	Switzerland	5 %
Xilinx, Inc.	Semiconductors	USD	USA	5 %

# Initial index composition

## Composition by country



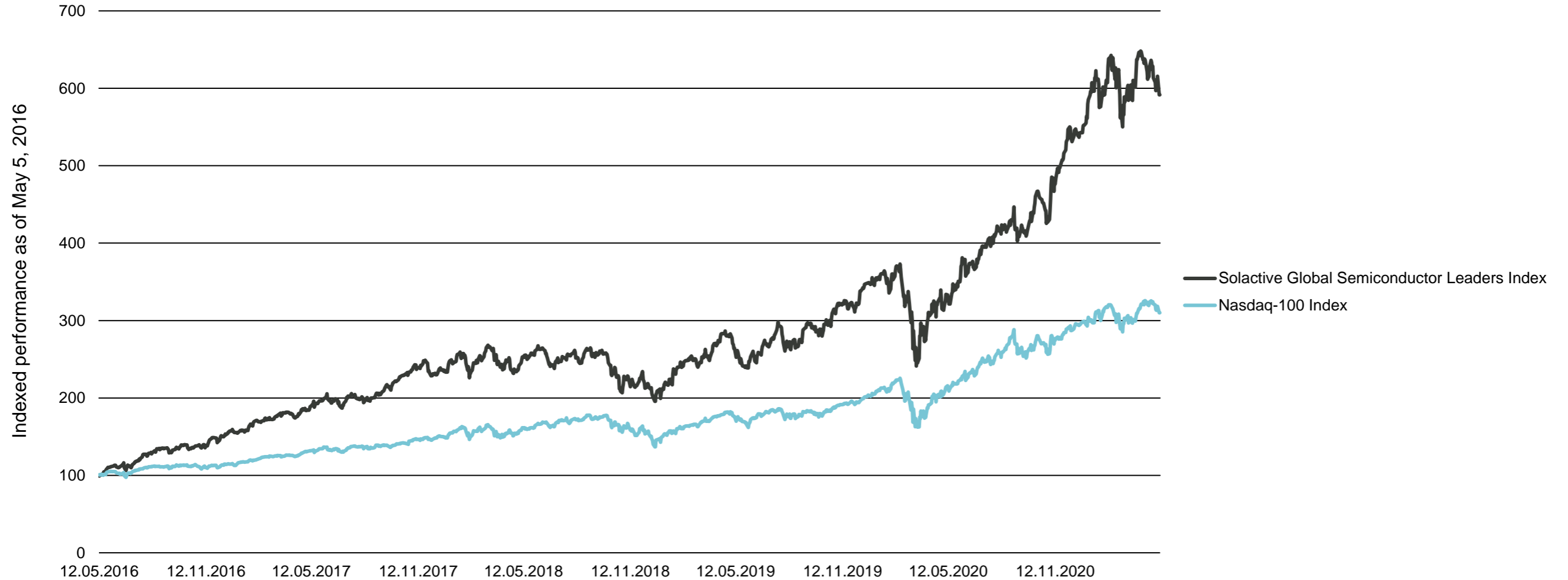
## Composition by category





# Backtesting over the last five years: The index compared to the Nasdaq-100

## Solactive Global Semiconductor Leaders Index outperformed the Nasdaq-100 Index



Source: Bloomberg, May 11, 2021

Note: Past performance and simulations are not reliable indicators of future performance.





# Product details

## Solactive Global Semiconductor Leaders Index

**Must be subscribed by:**  
June 11, 2021, 3 p.m. CET

### PRODUCT DETAILS\*

SSPA product type	Tracker certificate (1300)
Underlying	Solactive Global Semiconductor Leaders Index (NTR)
Initial fixing/payment	June 11, 2021 / June 16, 2021
Term	Open end
Management fee	1.20 %
Issuer	Bank Vontobel AG, Zurich (Moody's long-term deposit rating: Aa3)
Index calculation agent	Solactive AG, Platz der Einheit 1, D-60327 Frankfurt am Main, Germany

Währung	CHF	USD
ISIN/ symbol	CH0595160075 / ZSOAYV	CH0595160067 / ZSOAXV
Issue price	CHF 100.00 (incl. CHF 1.50 issuing commission)	USD 100.00 (incl. CHF 1.50 issuing commission)
Reference price certificate	CHF 98.50	USD 98.50
	<a href="#">Details</a> 	<a href="#">Details</a> 
	<a href="#">Termsheet</a> 	<a href="#">Termsheet</a> 

\*All information is indicative and may be adjusted. Only the final terms published on [www.investertest.com](http://www.investertest.com) together with the associated notifications and adjustments are legally binding.

SSPA product type: Tracker Certificate (1300) essentially maps the performance of the underlying. It must be noted that an investment in a VONCERT carries largely the same risks as a direct investment in the underlying; in particular, the corresponding foreign currency, market, and price risks. VONCERTs do not generate ongoing returns and offer no capital protection.

# Index composition\*

## Solactive Global Semiconductor Leaders Index

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### Applied Materials, Inc.

USA

Applied Materials, Inc. develops, manufactures, markets, and services semiconductor wafer fabrication equipment and related spare parts for the worldwide semiconductor industry. The Company's customers include semiconductor wafer and integrated circuit manufacturers, flat panel liquid crystal displays, solar photovoltaic cells and modules and other electronic devices manufacturers.

### Advanced Micro Devices, Inc.

USA

Advanced Micro Devices, Inc. (AMD) produces semiconductor products and devices. The Company offers products such as microprocessors, embedded microprocessors, chipsets, graphics, video and multimedia products and supplies it to third-party foundries, as well as provides assembling, testing, and packaging services. AMD serves customers worldwide.

### ASML Holding N.V.

Netherlands

ASML Holding N.V. develops, produces, and markets semiconductor manufacturing equipment, specifically machines for the production of chips through lithography. The Company services clients worldwide.

### Broadcom Inc.

USA

Broadcom Inc. designs, develops, and markets digital and analog semiconductors. The Company offers wireless RF components, storage adapters, controllers, networking processors, switches, fiber optic modules, motion control encoders, and optical sensors. Broadcom markets its products worldwide.

### Infineon Technologies AG

Germany

Infineon Technologies AG designs, manufactures, and markets semiconductors. The Company offers products include power semiconductors, microcontrollers, security controllers, radio frequency products, and sensors. Infineon markets its products to the automotive, industrial, communications, and consumer and security electronics sectors.

### Intel Corp.

USA

Intel Corporation designs, manufactures, and sells computer components and related products. The Company major products include microprocessors, chipsets, embedded processors and microcontrollers, flash memory, graphic, network and communication, systems management software, conferencing, and digital imaging products.

### KLA Corp.

USA

KLA Corporation produces and distributes semiconductors. The Company offers surface profilers, nanomechanical testers, chips, and semiconductor assembly solutions. KLA markets its products in the United States.

### Lam Research Corp.

USA

Lam Research Corporation manufactures, markets, and services semiconductor processing equipment used in the making of integrated circuits. The Company's products are used to deposit special films on a silicon wafer and etch away portions of various films to create a circuit design. Lam Research sells its products worldwide.

### Microchip Technology, Inc.

USA

Microchip Technology Incorporated designs, manufactures, and markets microcontrollers, related mixed-signal and memory products, and application development systems for high-volume embedded control applications. The Company also designs, develops, and markets linear and mixed-signal, power management, and thermal management products.

### Marvell Technology, Inc.

USA

Marvell Technology, Inc. develops and produces semiconductors and related technology. The Company offers security and networking platform, secure data processing, networking, and storage solutions. Marvell Technology serves customers worldwide.

\* As of May 2021; current index composition can be obtained free of charge from Solactive AG, the index calculation agent.

# Index composition\*

## Solactive Global Semiconductor Leaders Index

May 2021

### Micron Technology, Inc.

USA

Micron Technology, Inc., through its subsidiaries, manufactures and markets dynamic random access memory chips (DRAMs), static random access memory chips (SRAMs), flash memory, semiconductor components, and memory modules.

### Maxim Integrated Products, Inc.

USA

Maxim Integrated Products, Inc. designs, develops, manufactures, and markets linear and mixed-signal integrated circuits. The Company offers switching regulators, battery management, amplifiers, data converters, filters, opticals, and memory products. Maxim Integrated Products serves customers globally.

### NVIDIA Corp.

USA

NVIDIA Corporation designs, develops, and markets three dimensional (3D) graphics processors and related software. The Company offers products that provides interactive 3D graphics to the mainstream personal computer market.

### Qualcomm , Inc.

USA

Qualcomm Incorporated operates as a multinational semiconductor and telecommunications equipment company. The Company develops and delivers digital wireless communications products and services based on CDMA digital technology. Qualcomm serves customers worldwide.

### Samsung Electronics Co., Ltd.

South Korea

Samsung Electronics Co., Ltd. manufactures a wide range of consumer and industrial electronic equipment and products such as semiconductors, personal computers, peripherals, monitors, televisions, and home appliances including air conditioners and microwave ovens. The Company also produces Internet access network systems and telecommunications equipment including mobile phones.

### STMicroelectronics N.V.

Switzerland

STMicroelectronics N.V. designs, develops, manufactures, and markets semiconductor integrated circuits and discrete devices. The Company's products are used in the telecommunications, consumer electronics, automotive, computer, and industrial sectors.

### Taiwan Semiconductor Manufacturing Company, Ltd.

Taiwan

Taiwan Semiconductor Manufacturing Company, Ltd. manufactures and markets integrated circuits. The Company provides the following services: wafer manufacturing, wafer probing, assembly and testing, mask production, and design services.

### Texas Instruments

USA

Texas Instruments Incorporated operates as a semiconductor design and manufacturing company. The Company develops analog ICs and embedded processors. Texas Instruments serves customers worldwide.

### VAT Group AG

Switzerland

VAT Group AG is a developer, manufacturer and supplier of vacuum valves, multi-valve modules and edge-welded bellows for use in semiconductor, display and solar panel manufacturing. The Company provides its products around the world.

### Xilinx, Inc.

USA

Xilinx, Inc. designs, develops, and markets complete programmable logic solutions. The Company's solutions include advanced integrated circuits, software design tools, predefined system functions delivered as cores of logic, and field engineering support.

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May 2021

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