Metaverse: the next generation of the internet?
Metaverse in the media

Worldwide media is preoccupied with the so-called "metaverse". But what exactly is it, and can it be worth investing in this trend in the long term?

China's Metaverse Industry Committee admits 17 new firms
Source: meta.com

Better Metaverse Stock: Apple vs. Microsoft
Reuters

Is the Metaverse Just Marketing?
The metaverse doesn't quite exist yet. But the hype still matters.
The New York Times

Retailers seek real-world profits in the metaverse
Financial Times

Metaverse jobs with Nike, Disney and Meta are here. Here are the futuristic jobs you can apply for right now.
Business Insider

The Metaverse is coming—computer-generated virtual worlds are going mainstream
The Economist

JP Morgan becomes the first bank to open in the metaverse where you can shop with crypto and NFTs
EuroNews
The concept of the metaverse is complex and ubiquitous at the moment. Many tech visionaries and companies believe that the metaverse could be the next big breakthrough since the introduction of mobile Internet. Due to the early stage of development, the question arises as to how investments can be made in this area.

Starting point

- According to software engineers, many important technology trends converge in the metaverse, such as the Internet of Things, the cloud, artificial intelligence, 5G, automation and robotics.
- The race is on for tech companies to develop the "right" technologies first.
- Users need virtual or augmented reality headsets to participate in the Metaverse. According to the Boston Consulting Group, the market for augmented, mixed and virtual reality shows enormous growth potential in the coming years.

Goals

- The Vontobel Metaverse Index offers a diversified investment in the Metaverse theme through just one transaction.
- If you as an investor are convinced that the technology around the Metaverse is likely to prove itself, then the Vontobel Metaverse Index could be an interesting investment opportunity.
- The technology is still in its infancy - but if it succeeds in making the leap into the metaverse, it could be the next big technological development.
- Early positioning and entering this space when the trend could pick up speed could pay off for investors.
Metaverse – a virtual, digital twin
What can investors expect

- The metaverse is a space where virtual and physical worlds come together
- It provides space for endless interconnected virtual communities
- With the help of technical aids such as sensors and virtual reality glasses, users can immerse themselves in the metaverse environment and see, hear and feel it.
- Based on a wide range of technologies
  But these still need to make significant progress to make the Metaverse a reality
- Many tech visionaries and companies believe the metaverse could be the next big breakthrough

→ The name "Metaverse" is composed of the Greek prefix "meta", meaning after or beyond, and "verse", which stands for universe
→ Metaverse is already being called the next great revolutionary innovation
Mark Zuckerberg, Founder und CEO of Meta Platforms

- Zuckerberg changes the name of the company holding from Facebook to Meta Platforms, also referred to as simply Meta
- Thanks to Mark Zuckerberg, millions of people have now heard about the idea of the "metaverse"
- He speaks of a new generation of the Internet, which the company hopes to achieve with the help of dramatic advances in computer power, self-learning software (AI) and Internet bandwidth
- According to Zuckerberg's vision, people will be able to do everything in the metaverse that is possible in the real world today: work, shop, travel, and even buy houses.
- With Facebook's own virtual reality glasses, you can already enter the virtual world and meet your colleagues at the virtual conference table. There they look like cartoon avatars in 3D
According to the forecast market size, the metaverse will be a huge new market. According to the financial services provider Bloomberg Intelligence, the global metaverse business is expected to be worth up to 800 billion US-Dollars by 2024.

- Analysts from Morgan Stanley believe the market potential is around eight trillion US-Dollars
- Companies have recognized the potential and are investing in hardware and the development of virtual worlds
- In particular, the major technology companies are working to implement the metaverse, although development and widespread commercial usability are still years away
- Given the projected market size, the question for many companies is how activities related to the metaverse can be monetized
Global market for augmented, virtual and mixed reality
Estimates of global market in billion US-Dollars

Estimate: Global market for augmented, virtual and mixed reality— in bn. US-Dollars

Substantial growth possible

- As in reality, products and services cost something in the metaverse - and the costs can become very real
- In addition, various technical tools will be necessary
- As a result, the market volume in the metaverse could increase significantly in the near future
- Thus, the market volume in virtual, augmented and mixed reality alone could reach billions of dollars

Source: Handelsblatt, Bloomberg

The figures are estimated values
Future or present?
Experience already available in certain areas

**VISION EXISTS SINCE YEARS**
The vision of the metaverse has been around for some time. As early as 1992, author Neal Stephenson used the term in his science fiction novel «Snow Crash»

**GREAT TECHNOLOGICAL PROGRESS NECESSARY**
The necessary technology is currently still in its infancy

**SCIENCE FICTION MOVIES**
In some movies like "Matrix" or "Ready Player One" the concept of the metaverse can be found

**VIRTUAL REALITY IN GAMES**
You can already experience it in the broadest sense in some games like «Second Life», «Roblox», «Minecraft» or «Fortnite»

**VARIOUS AREAS**
Computer power, artificial intelligence, internet bandwidth and blockchain technologies still need significant development to make the vision a reality

**FUNCTIONING ECONOMY**
Furthermore, the metaverse needs an intact economy and its own currency to function
Many companies want to hop onto the trend and are asking themselves how the metaverse can be monetized. The foundation for this lies with the possibility of acquiring assets in the digital world, just as in real life.

**Non-Fungible Token (NFT)**
The owners of virtual assets can be clearly determined with the help of blockchain-based technologies. Such a virtual good is called a non-fungible token (NFT), i.e., a non-substitutable digitally protected good. NFTs can be completely different objects; the only requirement is that the object be digital. Users can also create and sell objects themselves.

**Virtual Concerts**
With the help of VR glasses, for example, virtual concert attendance can be made possible. Increasingly, companies from the entertainment sector are striving to enter this segment of the Metaverse.

**Supercomputers and the opportunities**
The U.S. company Meta wants to use a powerful supercomputer for artificial intelligence applications, for example, to enable real-time translations that allow large groups of people to communicate in different languages.

**Virtual elements in reality**
In this «Augmented Reality», the perception of the real world is supplemented by virtual elements. For example, additional information about places and buildings could be displayed during a city trip.

**Metaverse**
Wide range of applications
### Strategic Certificate

#### How to invest in this topic?

**HOW IT WORKS**

- Strategic Certificates are Tracker respectively Participation Certificates, that track the performance of a strategy determined by the index sponsor.
- Strategy is implemented by means of a discretionary index.
- The index sponsor is responsible for the selection of the index components from the defined universe as well as the timing of index adjustments.
- Dividends are reinvested.

**ADVANTAGES**

- Simple operation
- Access to exciting topics and trends as well as exotic asset classes.
- A single transaction enables investors to access an investment theme, more cost-effective than investing in individual securities.
- Stock selection & monitoring not necessary by investor.
- Liquidity and easy access to trading, usually listed on exchange.

**RISKS**

- Market risk of the underlying assets (analogous to a direct investment).
- No capital protection.
- Currency risk.
- Vontobel counterparty risk.
- Management or index fee reduces the value of the certificate.

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**The Index sponsor pursues a global metaverse equity strategy by selecting stocks of companies operating in areas relevant to the metaverse, such as virtual and augmented reality, cryptocurrencies and digital payments, semiconductors and other industries.**

This saves investors the effort of having to pick out companies that could benefit from the trend themselves - and allows them to invest in a megatrend with just one single transaction.

*Market and product risks remain with the investor*
Indexkonzept
Vontobel Metaverse Index

Listing in of the following countries:
Denmark, France, Finland, Germany, Hong Kong, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Singapore, Sweden, Spain, Switzerland, USA, Australia, Canada, New Zealand, Austria, China, Indonesia, Brazil, Malaysia, Mexico, South Africa, Thailand, Turkey, Philippines, Czech Republic, Greece, Hungary, Poland, Israel, Russian Federation, Republic of Korea, Bulgaria, Croatia, Estonia

Definition of relevant technologies (Virtual Reality, Augmented Reality, digital payment transactions, Cryptocurrencies, Semiconductor, Blockchain)

− Eligible companies must generate a significant proportion of their revenues in these technology categories
− Companies are sorted by market capitalization and the largest are selected for the index
− 30 companies are in the index
− The shares are equally weighted

− The index is evaluated and adjusted quarterly
− The index is calculated as a performance index. Dividend payments, other distributions and other income are taken into account net of country-specific taxes, fees and other charges («Net-Return»)

Source: Index Guideline
## Vontobel Metaverse Index
Top 10 of indicative initial composition* by market capitalization

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<tr>
<th>COMPANIES</th>
<th>SECTOR / INDUSTRY</th>
<th>INDEX CLASSIFICATION</th>
<th>CURRENCY</th>
<th>WEIGHTING</th>
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</thead>
<tbody>
<tr>
<td>Microsoft Corp.</td>
<td>Information Technology (IT) / Software</td>
<td>Metaverse Developer</td>
<td>USD</td>
<td>3.33%</td>
</tr>
<tr>
<td>Alphabet Inc.</td>
<td>Communication services / Interactive media und services</td>
<td>Metaverse Developer</td>
<td>USD</td>
<td>3.33%</td>
</tr>
<tr>
<td>Meta Platforms Inc.</td>
<td>Communication services / Interactive media und services</td>
<td>Metaverse Developer</td>
<td>USD</td>
<td>3.33%</td>
</tr>
<tr>
<td>NVIDIA Corp.</td>
<td>Information Technology (IT) / Semiconductors &amp; Semiconductor accessories</td>
<td>Semiconductor</td>
<td>USD</td>
<td>3.33%</td>
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<tr>
<td>Tencent Holdings</td>
<td>Communication services / Interactive media und services</td>
<td>Metaverse Developers</td>
<td>HKD</td>
<td>3.33%</td>
</tr>
<tr>
<td>Mastercard Inc.</td>
<td>Information Technology (IT) / IT Services</td>
<td>Digital Payments</td>
<td>USD</td>
<td>3.33%</td>
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<tr>
<td>Visa Inc.</td>
<td>Information Technology (IT) / IT Services</td>
<td>Digital Payments</td>
<td>USD</td>
<td>3.33%</td>
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<tr>
<td>Adobe Inc.</td>
<td>Information Technology (IT) / Software</td>
<td>Metaverse Developer</td>
<td>USD</td>
<td>3.33%</td>
</tr>
<tr>
<td>Oracle Corp.</td>
<td>Information Technology (IT) / Software</td>
<td>Metaverse Developer</td>
<td>USD</td>
<td>3.33%</td>
</tr>
<tr>
<td>PayPal Holdings</td>
<td>Information Technology (IT) / IT Services</td>
<td>Digital Payments</td>
<td>USD</td>
<td>3.33%</td>
</tr>
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*Initial composition February 2022
# Product details
## Vontobel Metaverse Index

**Strategic Certificate**
on the Vontobel Metaverse Index

<table>
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<tr>
<th>PRODUKTDETAILS</th>
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<td><strong>SSPA</strong></td>
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<td><strong>Underlying</strong></td>
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<tr>
<td><strong>Anfangsfixierung / Liberierung</strong></td>
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<td><strong>Maturity</strong></td>
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<td><strong>Index fee</strong></td>
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<td><strong>Issuer</strong></td>
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<td><strong>Guarantor</strong></td>
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<th><strong>Valor / Symbol</strong></th>
<th><strong>Issue price</strong></th>
<th><strong>Reference currency</strong></th>
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<td>CHF 101.00 (incl. CHF 1.00 issue premium)</td>
<td><strong>USD</strong></td>
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<tr>
<td><strong>USD</strong></td>
<td>115645992 / PMETAV</td>
<td>USD 101.00 (incl. USD 1.00 issue premium)</td>
<td><strong>CHF</strong></td>
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