STOXX® Global Metaverse Index

Index description

Metaverse is an emerging technology theme that aims to simulate the real world – or imagine a world beyond it – integrating digital and physical interactions for an immersive experience.

The STOXX Global Metaverse Index selects companies driving innovation and commercialization of technologies related to the adoption of the Metaverse. The index uses EconSight’s patent data, including patent quality and specialization scores, to identify companies that are market leaders and innovators in the field.

A new approach to thematic investing

Unlocking patent data

Spotlight on patents: identify disruption ahead of time

The filing and publication of patents in a specific technology indicate a company’s research focus and future direction of activity, before products and revenues become apparent.

Not all patents are equal: class not mass

Patents are one of the few robust resources to assess innovation activity. By leveraging EconSight’s data, the index relies on a rigorous methodology to define high-quality patents (HQPs). Patent quality is the product of technology relevance (citations) and market coverage.

Capturing innovation

Defining the key technologies fostering Metaverse adoption

EconSight’s patent classification system is used to identify companies exposed to a defined set of technologies related to the ongoing adoption of the Metaverse.

Experiencing

3D Image Modelling: Recreates accurate 3D representations to offer a seamless experience.

Avatars: Digital copy of the user to increase immersiveness, user-friendliness and human-machine interaction.

Virtual & Augmented Reality: Provides the ability to perceive reality in a computer-generated and interactive environment through lenses, wearable technologies or projection systems. Augmented reality superimposes information on the real world.

Digital twin: Digital mapping and modeling of real or unreal objects, to test the functionality or simulation of processes.

Transacting

Blockchain: Blockchain is a decentralized, distributed ledger that securely records digital transactions across a peer-to-peer network.

Non-Fungible Tokens (NFTs): Allow for digital assets to be traded and valued in a digital environment.

Fueling

Graphic Processing Unit (GPU): Broad adoption of immersive technologies and virtual experiences requires powerful infrastructure to host and support the Metaverse environment.

Key facts

> Allows targeted investment in the emerging Metaverse theme
> Leverages EconSight’s patent taxonomy, quality and specialization scores to identify innovative players
> Includes size and liquidity filters to ensure replicability of the index
> Utilizes sustainability data from Sustainalytics, a leading provider, to avoid exposure to companies engaged in controversial activities

1 Refer to the STOXX Methodology guide for full details.
Index methodology

Country, size and liquidity screens are applied on the STOXX® Global Total Market Index to capture liquid companies from developed and emerging countries. Additionally, companies that are not compliant with the Sustainalytics Global Standards Screening (GSS) assessment or are involved in controversial Weapons and other controversial activities are excluded from selection.

EconSight's patent classification system is used to identify companies exposed to a defined set of technologies related to the ongoing adoption of the Metaverse.

The index is reviewed annually in March and weighted according to adjusted equal weights and adjusted by the Metaverse patent specialization score.

Patent data captures Metaverse companies in two ways

High-quality patents
Selecting the top 10% ranking companies based on the number of high-quality patents that they have across Metaverse related technologies.

Innovation Leaders (cutting edge companies)

Specialization score
The specialization score shows how important the technology suite is to a company. This is defined as the proportion of Metaverse related patents within the overall company's patent portfolio. Companies with a score greater or equal to 30% in the defined technologies are selected.

Specialists (focused players)

Top 5 companies captured through high-quality patents

Samsung 945
Microsoft 792
Sony 625
Intel 507
Apple 483

Number of high-quality patents

Top 5 companies captured through specialization score

Coinbase 92%
Roblox 80%
Vuzix 77%
Unity 76%
Electronic Arts 64%

Share of Metaverse patents

Historical number of high-quality patents captured in the index²

Index exposure, based on companies’ existing business lines (sub-themes)³

³ STOXX data from March 19, 2012 to November 30, 2022
⁴ STOXX data as of November 30, 2022
Top 10 components

<table>
<thead>
<tr>
<th>Company</th>
<th>Supersector</th>
<th>Country</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronic Arts Inc.</td>
<td>Consumer Products and Services</td>
<td>United States</td>
<td>8.02</td>
</tr>
<tr>
<td>Activision Blizzard Inc.</td>
<td>Consumer Products and Services</td>
<td>United States</td>
<td>7.83</td>
</tr>
<tr>
<td>Nvidia Corp.</td>
<td>Technology</td>
<td>United States</td>
<td>7.10</td>
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<tr>
<td>Autodesk Inc.</td>
<td>Technology</td>
<td>United States</td>
<td>6.02</td>
</tr>
<tr>
<td>Meta Platforms Inc., Class A</td>
<td>Technology</td>
<td>United States</td>
<td>4.49</td>
</tr>
<tr>
<td>Nintendo Co. Ltd.</td>
<td>Consumer Products and Services</td>
<td>Japan</td>
<td>4.43</td>
</tr>
<tr>
<td>Dassault Systems SE</td>
<td>Technology</td>
<td>France</td>
<td>4.31</td>
</tr>
<tr>
<td>Intel Corp.</td>
<td>Technology</td>
<td>United States</td>
<td>3.09</td>
</tr>
<tr>
<td>MasterCard Inc. Cl A</td>
<td>Industrial Goods and Services</td>
<td>United States</td>
<td>3.01</td>
</tr>
<tr>
<td>Microsoft Corp.</td>
<td>Technology</td>
<td>United States</td>
<td>2.94</td>
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</tbody>
</table>

Fundamentals (for last 12 months)

<table>
<thead>
<tr>
<th>Index</th>
<th>Price/earnings incl. negative</th>
<th>Price/earnings excl. negative</th>
<th>Dividend yield (%)</th>
<th>Price/sales</th>
<th>Price/cash flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOXX® Global Metaverse Index</td>
<td>Trailing 34.5</td>
<td>Projected 27.3</td>
<td>24.0</td>
<td>20.6</td>
<td>0.7</td>
</tr>
<tr>
<td>STOXX® Global Total Market Index</td>
<td>19.7</td>
<td>16.3</td>
<td>15.3</td>
<td>14.9</td>
<td>2.0</td>
</tr>
</tbody>
</table>

To learn more about Qontigo's Thematic index solutions, please contact us, or visit qontigo.com/thematics