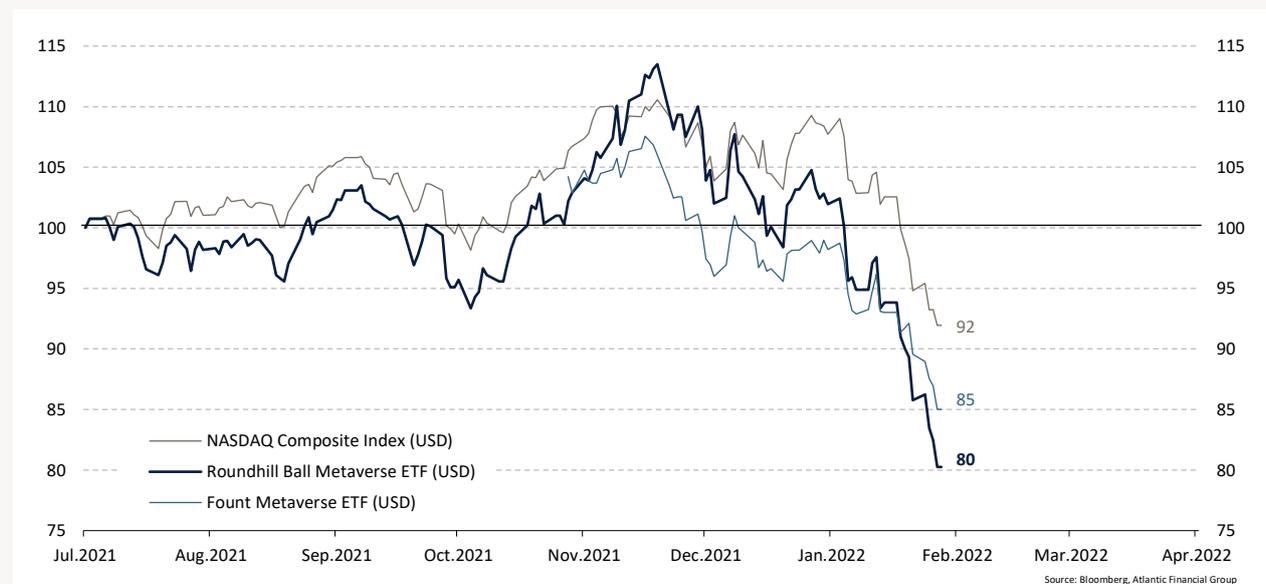




## "METAVERSE: THE FUSION OF THE REAL AND THE VIRTUAL"

- ◆ Stock markets have corrected sharply since the beginning of the year
- ◆ The InfoTech sector has suffered more than others
- ◆ However, the emergence of the Metaverse will give it more importance
- ◆ How can investors take part in this secular revolution?

### CHART OF THE WEEK: "The Metaverse has been washed away by the hurricane on the Tech"



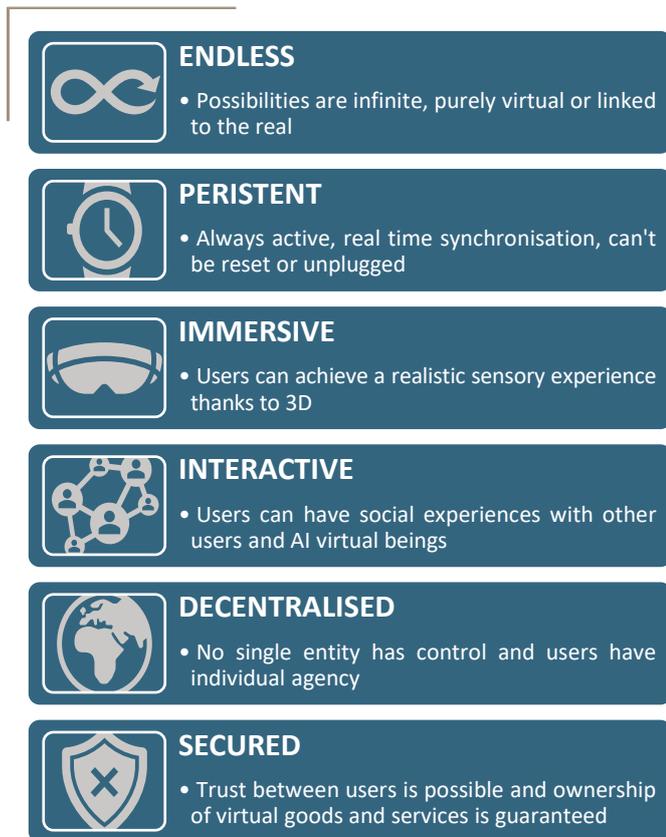
## EQUITY MARKETS ANALYSIS

The term **Metaverse** was originally used in the novel *Simulacron 3* by Daniel Galouye in 1968, and then again in the book *The Virtual Samurai* by Neal Stephenson in 1992. The Greek prefix "meta" expresses reflection, change, succession, but above all the fact of going "beyond". The English suffix "verse" is a contraction of the word "universe". Thus, from an etymological point of view, the Metaverse **represents a parallel world. The Metaverse refers to the new mutation of the Internet, the Web 3.0.** This evolution could be considered a revolution as it will make the digital experience more interactive and immersive



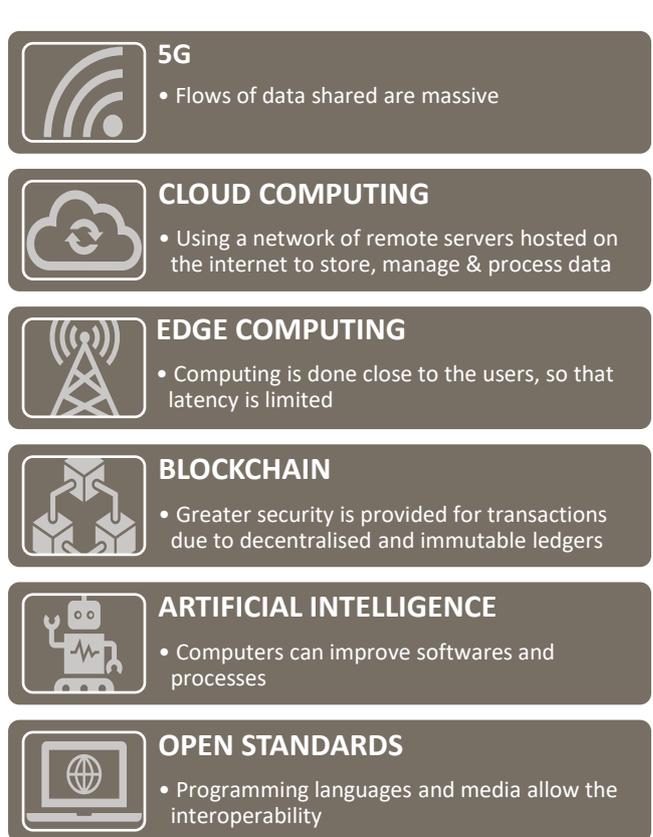
(see Fig. 2). To paraphrase Mark Zuckerberg, **instead of just looking at internet content, you will now be inside it, you will be an actor instead of a spectator.** The scale of this change will be comparable to the advent of the internet in the 1990s (Web 1.0) or the spread of mobile internet in the 2010s (Web 2.0). In this collective three-dimensional (3D) virtual environment, it is no longer just text, pictures or video that will be used. Internet users will freely control avatars or holograms to interact with other people, share experiences, shop, learn, work, entertain, etc. To do this, they will use verbal and non-verbal communication rules similar to the real world: gestures, facial expressions, tone of voice... Digital socialisation in a way.

Fig. 2 - Features of the Metaverse



Source: Atlantic Financial Group

Fig. 3- Main technologies required



Source: Atlantic Financial Group

The Metaverse has been in the imagination of IT developers for decades. In the early 2000s, the game *Second Life* sketched out a draft. It allowed people to move around in an imaginary world. **If the concept is now becoming possible, it is mainly thanks to the combined inventions of 5G, cloud computing and blockchain** (see Fig. 3). Indeed, the network will considerably increase the flow of information shared and stored online by Internet users, while the blockchain will make it possible to secure the ownership and exchange of digital goods. **Thus, in the near future, the Metaverse will power a digital world, parallel to the physical world,** always accessible, synchronised in real time, and which will see the emergence of an economy of virtual goods (clothes, buildings, land, events, etc.) and business models different from those applied in the real world. **The two worlds may even be combined, becoming both concrete and virtual, paving the way for augmented reality.**



Fig 4- Global Metaverse market

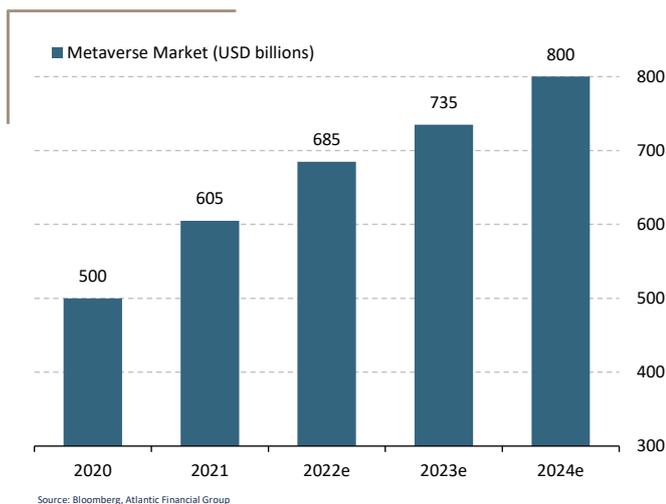
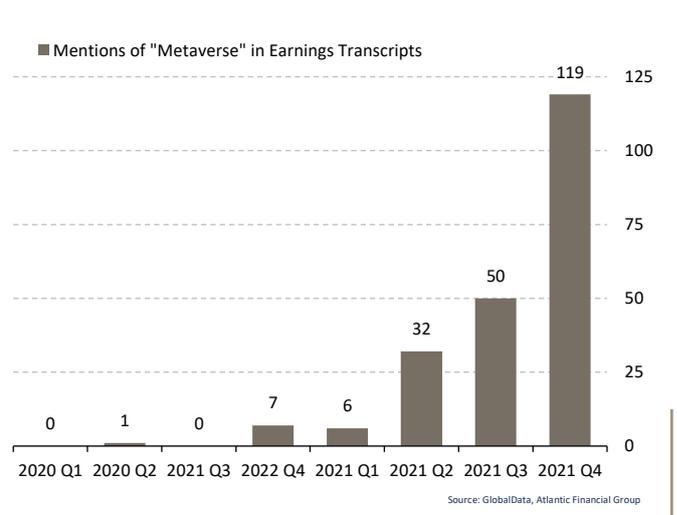


Fig 5- Companies' reference to the Metaverse



According to Bloomberg Intelligence estimates, the Metaverse market is already worth more than USD 600 billion (see Fig. 4). **Listed companies are increasingly referring to it in their communications** (see Fig. 5). Last October, Facebook made it its main raison d'être, even changing its name to "Meta". At the end of December, the Chinese internet giant, Baidu, launched one of the first Metaverse applications in its country, XiRang, which means "Land of Hope". Proof of the embryonic nature of the concept is that the platform will require at least 6 more years of development to be fully operational. A fortnight ago, Microsoft also made a splash by buying Activision Blizzard for \$69 billion, 45% above its valuation. While the technology giants (Alphabet, Amazon, Apple, Meta, Microsoft, Netflix, and also Baidu, Tencent, Alibaba) are among the companies that cannot be ignored in this technological revolution, many other players are also taking their place in it, at different stages of the value chain (see Fig. 6). Their intermediate size allows them to be avant-garde, specialised, more agile, and to contribute actively to the development of the Metaverse.

**There are many ways to classify the companies involved in the development of the Metaverse. We have chosen this:**

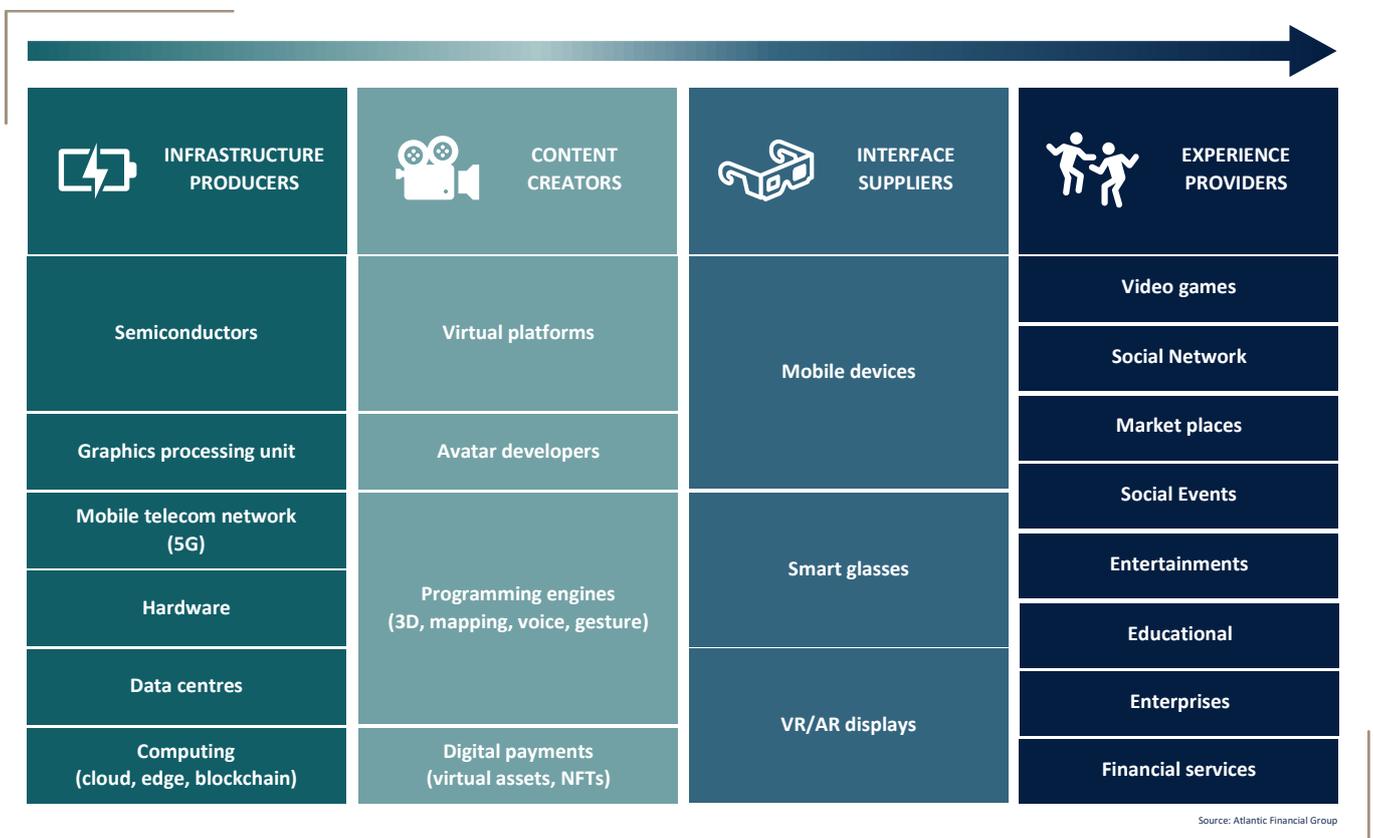
- **Gaming.** Video game companies seem to have a clear advantage due to their expertise in building 3D worlds. Currently, the first versions of the Metaverse are being presented through popular games such as Roblox, Grand Theft Auto (Take Two), Animal Crossing (Nintendo), or Fortnite (Epic Games is a privately-held company) for example. Companies such as Unity Software, Electronic Arts, Bandai Namco, Ubisoft, are also in the forefront.
- **Digital media.** A new customer relationship is emerging, the Direct-to-Avatar (D2A). The pioneers of digital content and online advertising (Autodesk, Dassault Systèmes, Hewlett Packard, Sea, Snap) are naturally well positioned to develop their traditional offer towards this new and huge market.
- **Consumer discretionary.** Major brands such as Nike and Manchester City have already used these companies to develop their image and increase their sales. The former has created a virtual shop on the Roblox platform, while the latter has created a digital universe around the team's stadium. For its



part, **Disney** is seeking to develop a Metaverse to project animated 3D images onto real-world objects and thus interact with visitors to theme parks. In the luxury sector, companies such as **Gucci**, **Prada** or **Dolce & Gabbana** have already positioned themselves by selling clothes, shoes, watches or all sorts of accessories (real or virtual) in a dematerialised manner. This allows customers to own a part of a real good or to have their avatar wear a virtual skin.

- Education and work.** While individuals are directly affected by this development, companies are also joining in. With its network called Horizon, Meta seeks to give remote workers the physical impression of being in the office. For manual jobs, including those requiring a high degree of technical skill, such as surgery, the immersive learning method is much more effective. The human brain is designed to learn faster through experimentation and manipulation.

Fig. 6 - Sub-sectors involved in the Metaverse value chain



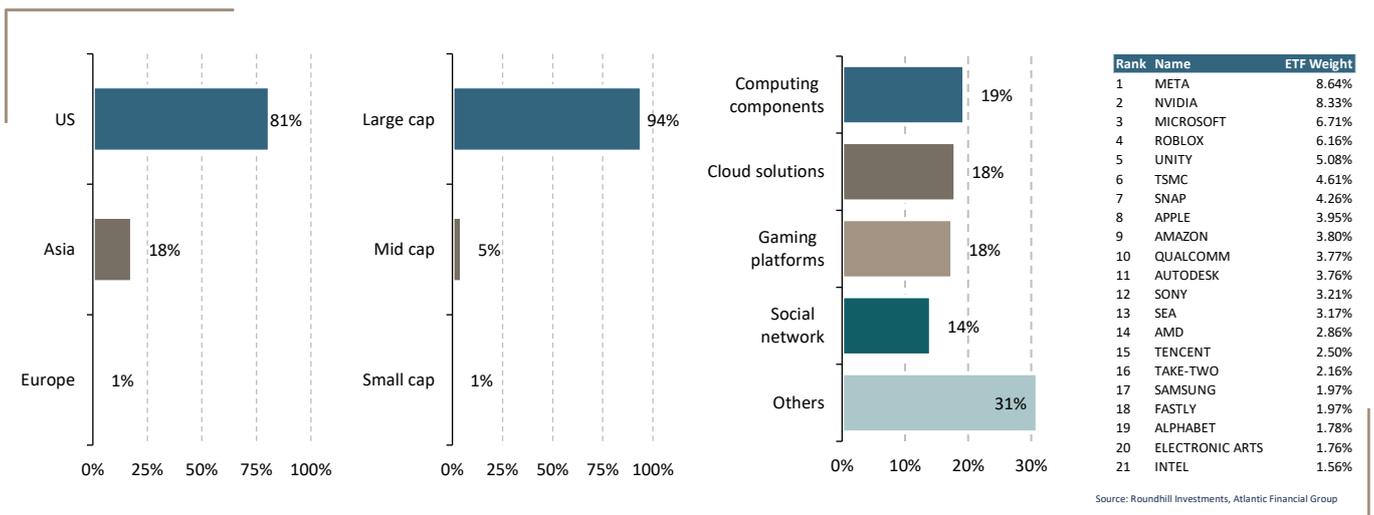
- Info Tech.** To access the Metaverse, users must be equipped with electronic devices, such as augmented reality glasses, virtual reality headsets (**HTC**, **Sony**) but also sensors or cameras (**Matterport**). From a technical point of view, this vast 3D digital universe requires significant computing resources, and also computing power and optimisation. Graphics card manufacturers (**Nvidia** or **AMD**) are taking advantage of this, as are cloud specialists (**Amazon** and **Microsoft**). Similarly, data centres (**Digital Reality**, **Equinix**) and the famous edge computing (**Akamai Technologies**, **Fastly**) make it possible to carry out calculations close to users, so as to limit latency. Behind all these players, semiconductor manufacturers (**Intel**, **Samsung**, **TSMC**, **Micron**, **Qualcomm**) are once again essential.



- **Blockchain.** This digital revolution will only be possible if it is sufficiently secure. By building trust between different actors, blockchain technology allows for digital ownership of virtual assets, via Non-Fungible Tokens (NFT). Some companies now offer services in the digital asset and cryptocurrency sector (Coinbase, Galaxy Digital).
- **Cybersecurity.** Malware detection, data protection, or vulnerability management are becoming a must. Among cybersecurity companies (Cloudflare, CrowdStrike, Fortinet, Palo Alto), those that offer their services from the cloud are naturally better positioned.

**All the companies in these sub-sectors are the stars of the Metaverse galaxy** (see Fig. 6). **They are likely to shine in the coming years** by equipping or offering their services to individuals and enterprises. Moreover, M&A situations are expected to accelerate. Tech leaders have no choice but to move quickly into the Metaverse. They do not have the time to develop all the know-how in-house. The recent example of Microsoft's takeover of Activision Blizzard attests to this.

Fig. 7 - Decomposition of the Metaverse Roundhill Investments ETF



Not everything is perfect, however. **If there is a first technical complaint to be made about the Metaverse, it is its lack of harmony.** No standardisation allowing the compatibility of the tools is mentioned. However, in the long run, a consortium will have to be set up between the main technology companies. Without this, the virtual world will be neither practicable nor profitable.

**The second criticism relates to the novelty of this investment theme.** It will take several decades for this digital revolution to develop. As proof of the embryonic state of the Metaverse, on the financial markets, the only two ETFs available were launched by the American Roundhill Investments (METV) and by the South Korean Fount (MTVR), in June and October 2021 respectively. Although the first of the two index funds has almost \$1 billion in assets under management, up 619% over 7 months, the second has only \$13 million.



**The third and final criticism is that these two ETFs are highly correlated with the leading US technology index, the Nasdaq.** Worse, they have been underperforming for several months (see Chart of the Week). They are trading -20% below their issue price. The high concentration of US large caps is one of the main explanatory factors (see Fig. 7).

The launch of a third and fourth ETF by ProShares and First Trust in the coming months should help democratise this investment theme, increase the number of companies selected and, most importantly, accelerate capital inflows. **This, combined with the recent correction in the global Info Tech sector, will help generate positive returns.**

### **Conclusion:**

Facebook becoming Meta, Baidu's launch of XiRang, and Microsoft's acquisition of Activision-Blizzard are indicative of a powerful trend for the Metaverse. Since the beginning of the year, the investment theme has suffered from the sharp correction in the Info Tech sector. The timing to focus on it is probably not yet perfect but the "top 10 positions" of the Metaverse ETFs will benefit from a sustained and significant capital flow.

Among the multitude of sub-sectors involved in the Metaverse, gaming companies should be considered first. They are already implementing some of the key concepts and are regularly targeted by the tech giants.

Furthermore, semiconductors and cyber security are a must, in this and many other topics. Whether the cycle is buoyant or not, states, companies and households around the world will support demand for these key intermediate goods and services. They are, in a way, the "utilities of tomorrow". The emergence of the Metaverse only reinforces this reality... whether it is simple, virtual or augmented!



## RETURN ON FINANCIAL ASSETS

Markets Performances (local currencies)	Last Price	Momentum Indicator (RSI)	1-Week (%)	1-Month (%)	2022 Year-to-Date (%)	2021 (%)	2020 (%)
<b>Equities</b>							
World (MSCI)	705.1	33.15	-1.1%	-6.6%	-6.5%	19.0%	16.9%
USA (S&P 500)	4432	38.07	0.8%	-7.3%	-6.9%	28.7%	18.4%
USA (Dow Jones)	34725	40.65	1.3%	-4.5%	-4.4%	20.9%	9.7%
USA (Nasdaq)	13771	34.43	0.0%	-2.7%	-2.0%	22.2%	45.1%
Euro Area (DJ EuroStoxx)	456.2	39.83	-2.2%	-4.9%	-4.6%	23.5%	0.8%
UK (FTSE 100)	7466	51.20	-0.4%	1.3%	1.1%	18.4%	-11.4%
Switzerland (SMI)	12104	37.64	-2.0%	-5.7%	-6.0%	23.7%	4.3%
Japan (Nikkei)	27002	36.45	-2.9%	-3.0%	-7.2%	6.6%	18.3%
Emerging (MSCI)	1191	34.43	-4.3%	-2.8%	-3.3%	-2.4%	18.8%
Brasil (IBOVESPA)	111910	66.73	2.7%	6.7%	6.8%	-11.9%	2.9%
Russia (MOEX)	3535	45.18	1.4%	-7.1%	-7.4%	21.9%	14.8%
India (SENSEX)	58178	35.67	-3.1%	-1.2%	-1.8%	23.2%	17.2%
China (CSI)	4564	30.73	-4.5%	-7.6%	-7.6%	-3.5%	29.9%
Communication Serv. (MSCI World)	101.96	33.04	-0.7%	-3.2%	-7.5%	10.8%	24.2%
Consumer Discret. (MSCI World)	365.3	27.24	-3.2%	-1.0%	-11.0%	9.2%	17.0%
Consumer Staples (MSCI World)	280.8	34.86	-1.6%	-3.2%	-3.7%	11.7%	8.8%
Energy (MSCI World)	212.4	64.84	2.5%	11.1%	12.6%	37.5%	-27.7%
Financials (MSCI World)	151.1	43.91	-0.4%	0.5%	0.5%	25.1%	-3.1%
Health Care (MSCI World)	338.1	33.76	-0.6%	-3.1%	-8.4%	18.0%	15.4%
Industrials (MSCI World)	306.0	25.73	-3.2%	-7.6%	-7.8%	16.6%	11.8%
Info. Tech. (MSCI World)	513.1	36.97	0.3%	-1.5%	-10.7%	27.6%	46.2%
Materials (MSCI World)	349.4	35.31	-3.1%	-3.8%	-4.4%	15.4%	21.6%
Real Estate (MSCI World)	217.9	36.89	-0.9%	-5.2%	-7.2%	23.6%	-5.7%
Utilities (MSCI World)	155.9	41.10	-1.5%	-3.2%	-4.1%	11.1%	4.8%
<b>Bonds (FTSE)</b>							
USA (7-10 Yr)	1.79%	44.25	-0.1%	-2.2%	-2.1%	-2.4%	9.3%
Euro Area (7-10 Yr)	0.33%	37.47	-0.2%	-1.4%	-0.9%	-2.9%	4.5%
Germany (7-10 Yr)	-0.05%	41.29	-0.2%	-1.1%	-0.6%	-2.7%	3.0%
UK (7-10 Yr)	1.24%	35.32	-0.6%	-2.5%	-2.1%	-4.9%	5.4%
Switzerland (7-10 Yr)	0.04%	34.64	-0.4%	-1.7%	-1.3%	-2.3%	0.4%
Japan (5-10 Yr)	0.18%	32.18	-0.2%	-0.7%	-0.5%	0.0%	-0.1%
Emerging (5-10 Yr)	5.23%	36.93	0.2%	-3.1%	-3.1%	-2.3%	5.2%
USA (IG Corp.)	2.78%	31.90	-0.6%	-3.3%	-3.3%	-1.0%	9.9%
Euro Area (IG Corp.)	0.71%	27.85	-0.5%	-1.0%	-1.0%	-1.0%	2.8%
Emerging (IG Corp.)	5.15%	32.92	-0.3%	-2.3%	-2.3%	-3.0%	8.1%
USA (HY Corp.)	5.30%	20.32	-1.0%	-2.8%	-2.8%	5.3%	7.1%
Euro Area (HY Corp.)	3.88%	20.70	-0.5%	-1.2%	-1.2%	3.4%	2.3%
Emerging (HY Corp.)	7.76%	42.52	0.5%	-2.1%	-2.1%	-3.2%	4.3%
World (Convertibles)	403.8	22.87	-1.8%	-7.6%	-7.9%	2.4%	38.8%
USA (Convertibles)	537.9	26.04	-1.3%	-3.2%	-9.3%	3.1%	54.5%
Euro Area (Convertibles)	3920	23.92	-2.1%	-4.5%	-4.5%	-0.3%	6.1%
Switzerland (Convertibles)	184.6	29.71	-0.2%	-0.8%	-0.7%	-0.5%	0.5%
Japan (Convertibles)	195.6	29.95	-1.3%	-2.7%	-2.6%	3.3%	2.8%
<b>Hedge Funds (Crédit Suisse)</b>							
Hedge Funds Indus.	726.7	67.87	n.a.	1.9%	n.a.	6.2%	6.4%
Distressed	966.8	51.12	n.a.	0.8%	n.a.	11.6%	3.8%
Event Driven	812.3	73.93	n.a.	0.3%	n.a.	12.6%	7.0%
Fixed Income	393.5	75.92	n.a.	1.3%	n.a.	3.9%	3.6%
Global Macro	1205.0	69.09	n.a.	3.5%	n.a.	5.9%	6.5%
Long/Short	927.5	67.19	n.a.	3.0%	n.a.	5.2%	7.9%
CTA's	341.6	62.44	n.a.	0.2%	n.a.	8.0%	1.9%
Market Neutral	290.1	67.86	n.a.	1.9%	n.a.	4.2%	1.7%
Multi-Strategy	696.9	73.53	n.a.	2.1%	n.a.	4.7%	5.6%
<b>Volatility</b>							
VIX	27.66	59.61	-4.1%	57.7%	60.6%	-24.3%	65.1%
VSTOXX	29.41	60.57	21.4%	54.2%	52.6%	-17.6%	67.5%
<b>Commodities</b>							
Commodities (CRB)	584.0	n.a.	-0.5%	1.1%	1.0%	30.3%	10.5%
Gold (Troy Ounce)	1789	40.32	-2.0%	-2.2%	-2.2%	-3.6%	25.1%
Oil (WTI, Barrel)	86.82	66.68	3.2%	14.3%	12.8%	58.7%	-20.5%
Oil (Brent, Barrel)	90.45	72.72	2.6%	15.4%	16.7%	51.4%	-23.0%
<b>Currencies (vs USD)</b>							
USD (Dollar Index)	97.102	64.26	1.2%	1.5%	1.5%	6.4%	-6.7%
EUR	1.1166	35.52	-1.4%	-1.8%	-1.8%	-7.5%	9.7%
JPY	115.43	40.35	-1.3%	-0.3%	-0.3%	-10.2%	5.1%
GBP	1.3425	42.34	-0.5%	-0.8%	-0.8%	-1.0%	3.1%
AUD	0.7033	36.46	-1.6%	-3.2%	-3.2%	-5.6%	9.6%
CAD	1.2727	43.92	-0.7%	-0.7%	-0.7%	0.7%	2.1%
CHF	0.9315	37.02	-1.9%	-2.0%	-2.0%	-3.0%	9.4%
CNY	6.3612	47.88	-0.4%	0.1%	-0.1%	2.7%	6.7%
MXN	20.786	39.04	-1.0%	-1.2%	-1.2%	-3.0%	-5.0%
EM (Emerging Index)	1731.7	42.11	-0.6%	-0.1%	-0.2%	0.9%	3.3%

Source: Bloomberg, Atlantic Financial Group

Total Return by asset class (Negative \ Positive Performance)



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