Principali tendenze in tema di investimenti sostenibili e criptoattività

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Il Rapporto analizza le principali dinamiche in atto nell’ambito degli investimenti sostenibili e dei mercati delle criptoadattività, anche con riguardo a profili che possono rilevare per il raggiungimento degli obiettivi istituzionali della CONSOB.

The Report analyses the emerging trends in sustainable investing and in the markets for cryptoassets, also with regard to the developments that can affect the achievement of CONSOB remit.
Nell’ultimo biennio, gli investimenti sostenibili hanno conosciuto una crescita significativa, a fronte di un andamento altalenante dei principali benchmark azionari. A livello globale e nell’ambito dell’area euro, gli indici che includono le società ritenute più attente ai temi della sostenibilità (anche indici ESG da ora in poi) hanno segnato un recupero rilevante rispetto al calo registrato nei primi mesi del 2020 in occasione dell’emergenza sanitaria innescata dal Covid-19, attestandosi a fine maggio 2022 su livelli superiori a quelli pre-pandemia. Sia nell’area euro sia in Italia, i benchmark ESG mostrano performance lievemente superiori rispetto a quelle dell’intero mercato e livelli di volatilità simili o di poco inferiori, a fronte di una composizione che replica per almeno il 70% quella del corrispondente indice generale di riferimento.

Negli ultimi anni è cresciuto sia il numero di società quotate nell’area euro e in Italia assistite da uno score ESG sia il valore medio dello score (globale e per singolo fattore; dati Refinitiv). In ambito domestico, gli emittenti che godono di un punteggio più elevato si connotano per una maggiore capitalizzazione di mercato e una volatilità dei corsi azionari inferiore a quella delle altre società; essi, inoltre, sono più frequentemente attivi nei settori delle utilities e dell’energia.

Sul fronte dell’offerta di strumenti finanziari sostenibili, l’Europa vede confermato il suo ruolo trainante: a giugno 2022, l’aggregato globale delle emissioni di obbligazioni ESG è infatti riferibile ai paesi europei per il 50% circa mentre il patrimonio di fondi comuni di investimento ESG europei pesa più dell’80% sul dato globale.

Nel primo semestre 2022, le obbligazioni green costituiscono il 60% del totale emesso, seguite dalle obbligazioni sostenibili (ossia legate al finanziamento di progetti o attività con impatti positivi sotto il profilo sia ambientale sia sociale e pari al 26% del totale) e dalle emissioni social (ossia finalizzate a finanziare progetti a impatto sociale positivo, pari al 14% del totale). Tra i titoli green, poco più della metà è in linea con gli standard della Climate Bond Initiative (CBI), mentre nei restanti casi la connotazione green delle obbligazioni viene attestata solo dall’emittente (il dato è passato dal 10% nel 2021 al 23% nella prima metà del 2022). Nei maggiori paesi dell’area euro le emissioni di obbligazioni ESG sono riferibili in gran parte alle società finanziarie, seguite da quelle operanti nei settori utilities e trasporti e, dal 2020, a emittenti pubblici. In Italia, l’avvio nel 2021 di programmi pubblici ha dato impulso alla crescita delle emissioni di titoli green, colmando parzialmente il divario rispetto ai maggiori paesi dell’area euro.

Con riguardo al comparto dei fondi ESG, a marzo 2022 si contano quasi 5 mila fondi europei, con un patrimonio complessivo prossimo a 2.300 miliardi di dollari, in crescita del 40% rispetto al primo trimestre dell’anno precedente. Analoga tendenza si osserva in Italia, dove alla fine del primo trimestre del 2022 il numero di fondi ESG è superiore a 1.900 (1.266 a marzo 2021), mentre il patrimonio promosso si è portato a 431 milioni di euro (295 a marzo 2021).
Over the past two years, sustainable investments experienced a significant growth, against a fluctuating performance of the main equity benchmarks. At the global level and within the euro area, indices that include the companies considered most attentive to sustainability issues (also ESG indices from now on) have shown a significant recovery from the drop recorded in the early 2020s during the health emergency triggered by Covid-19, settling at higher levels than the pre-pandemic ones at the end of May 2022. Both in the euro area and in Italy, ESG benchmarks show slightly higher performance than the market as a whole and similar or slightly lower levels of volatility, against a composition that replicates that of the corresponding reference index by at least 70%.

In recent years, both the number of listed companies in the euro area and Italy with an ESG score and the median value of the score (overall and by single factor; Refinitiv data) have increased. In Italy, issuers with higher ratings are characterised by higher market capitalisation and lower share price volatility; they are also more frequently active in the utilities and energy sectors.

In terms of the supply of sustainable financial instruments, Europe sees its leading role confirmed: as of June 2022, around 50% of the global aggregate of ESG bond issues refer to European countries, while the assets of European ESG mutual funds account for more than 80 per cent of the global figure.

In the first half of 2022, green bonds accounted for 60% of the total issued amount, followed by sustainable bonds (i.e. linked to financing projects or activities with positive environmental and social impacts, accounting for 26% of the total) and social bonds (i.e. aimed at financing projects with positive social impacts, accounting for 14% of the total). Among green bonds, slightly more than half are in line with the standards of the Climate Bond Initiative (CBI), while in the remaining cases the greenness of the bonds is only attested by the issuer (the figure rose from 10% in 2021 to 23% in the first half of 2022). In the largest euro area countries, ESG bond issuances mostly refer to financial companies, followed by those operating in the utilities and transport sectors and, from 2020, public issuers. In Italy, the launch of public programmes in 2021 has boosted the growth of green bond issues, partially closing the gap with the other main euro area countries.

With regard to ESG funds, in March 2022 the European funds was almost 5,000, with total assets close to 2,300 billion of USD, with an year-on-year increase of 40%. A similar trend can be observed in Italy, where at the end of the first quarter of 2022, the number of ESG funds exceeded 1,900 (1,266 as at March 2021), while the assets rose to 431 millions of euro (295 as of March 2021).
A partire dal 2020 il numero di criptovalute ha registrato una espansione crescente, passando da poco più di 2.400 a oltre 10.300 ad aprile 2022. Anche la capitalizzazione ha registrato un aumento significativo, sebbene rimanga contenuta nel confronto con la capitalizzazione dei mercati azionari (2,5% del valore aggregato dello S&P500 e dello Stoxx Europe 600). A fine maggio 2022, oltre il 60% della capitalizzazione totale delle criptovalute è riferibile a Bitcoin ed Ether, mentre il dato si attesta al 13% con riguardo alle stablecoins. Sono cresciute di pari passo anche le applicazioni di finanza decentralizzata (Decentralised Finance o DeFi), che attraverso infrastrutture blockchain permettono la creazione e lo scambio di prodotti e servizi finanziari legati a criptoattività, disintermediando gli operatori tradizionali e le infrastrutture centralizzate. In particolare, l'ammontare del capitale depositato a garanzia nelle applicazioni DeFi (cosiddetto value locked, utilizzato come una proxy dimensionale) è passato da 16,5 miliardi di dollari a fine 2020 a circa 56 miliardi a maggio 2022 (con un picco superiore a 95 miliardi a fine 2021). Le criptovalute continuano a connotarsi per prezzi estremamente volatili e in calo dall'inizio del 2022. Nel periodo maggio 2021 – maggio 2022, la volatilità e il rendimento del Bitcoin si sono attestati su livelli rispettivamente di gran lunga superiori e di gran lunga inferiori a quelli riferibili ad alcune categorie di asset non digitali. I prezzi delle criptovalute più diffuse risultano moderatamente correlati con gli andamenti dei principali indici azionari, sebbene questo legame si sia lievemente rafforzato negli ultimi mesi.

La sicurezza cibernetica delle applicazioni sottostanti alle criptoattività rimane un profilo di criticità rilevante: alcune statistiche relative a 120 piattaforme digitali dedicate a criptoattività evidenziano che solo 16 possono ritenersi molto sicure. Secondo altre fonti, inoltre, da settembre 2020 a fine maggio 2022, l'ammontare complessivo di fondi sottratti alle applicazioni DeFi a seguito di attacchi informatici ha superato i 2 miliardi di dollari, con l'incremento più consistente nel 2022.

Dal 2021 è cresciuto in maniera significativa l'interesse verso le criptoattività, come attesta l'andamento del numero di ricerche effettuate in rete di termini a esse associati. Con riguardo alla quota di popolazione che possiede criptoattività, a livello globale il dato raggiunge i massimi in Ucraina e Russia (rispettivamente 13% e 12%), mentre tra le maggiori economie europee oscilla tra il 5% nel Regno Unito e il 2% in Italia. A livello globale è aumentato anche il patrimonio dei fondi comuni dedicati all'investimento in criptoattività, che secondo le stime di alcuni analisti sarebbe passato da 36 miliardi di dollari a fine 2020 a quasi 70 miliardi a marzo 2022, con una diffusione più rilevante nel Nord America.
Since 2020, the number of cryptocurrencies has been growing, rising from just over 2,400 to over 10,300 in April 2022. Capitalisation has also increased significantly, although it remains small in comparison to the capitalisation of the stock markets, standing for example at 2.5 per cent of the cumulated value of the S&P500 and the Stoxx Europe 600. At the end of May 2022, more than 60% of the total capitalisation of cryptocurrencies is attributable to Bitcoin and Ether, while the figure stands at 13% for stablecoins.

Decentralised finance applications (Decentralised Finance or DeFi), which through blockchain infrastructures enable the creation and exchange of cryptocurrency-related financial products and services, disintermediating traditional operators and centralised infrastructures, have also grown at the same pace. In particular, the value locked in DeFi applications (used as a size proxy) increased from 16.5 billions of USD at the end of 2020 to about 56 billions in May 2022 (peaking at over 95 billions at the end of 2021). Cryptocurrencies keep being characterised by extremely volatile prices that are declining since the beginning of 2022. In the May 2021 - May2022 period, for example, Bitcoin’s volatility and returns were at levels far above and far below those of some non-digital asset classes, respectively. The prices of popular cryptocurrencies are only mildly correlated with the performance of major stock indices, although this link has strengthened slightly in recent months.

The cybersecurity of applications underlying cryptoassets remains a major critical profile: some statistics on 120 digital platforms dedicated to cryptoassets show that only 16 can be considered very secure. Moreover, according to other sources, from September 2020 to end of May 2022, the total amount of funds stolen from DeFi applications as a result of cyber-attacks exceeded 2 billions of USD, with the most significant growth in 2022.

Since 2021, interest in cryptocurrencies has grown significantly, as evidenced by the uprise in the number of searches made online for terms associated with them. The share of population owning cryptoassets peaks in Ukraine and Russia (13% and 12% respectively), while among the major European economies it ranges from 5% in the UK to 2% in Italy. Globally, mutual funds dedicated to cryptoassets have also increased, especially in North America, with some estimates pointing to a rise in their assets under management from 36 USD billion at the end of 2020 to almost 70 USD billion in March 2022.
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![Graph showing ESG Stoxx Global index trend from 2019 to 2022]

Source: Refinitiv Datastream.

Fig. 1.2 – ESG stock market trend in the euro area

![Graph showing ESG Stoxx 50 leaders index trend in the euro area from 2019 to 2022]

Source: Refinitiv Datastream. The right figure reports the proportion of overlapping constituents of Euro Stoxx 50 and Euro Stoxx 50 ESG leaders; volatility is the annualised standard deviation expressed in percentage values.

Fig. 1.3 – ESG Stoxx 50 leaders index average return compared to ESG Stoxx 50

![Table showing average daily return for ESG Stoxx 50 leaders and Euro Stoxx 50]

Source: calculations on Refinitiv Datastream data. The right figure reports the pairwise correlation between Euro Stoxx 50 ESG leaders and MSCI EMU ESG leaders.
Fig. 1.4 – ESG stock market trend in Italy

Source: calculations on Refinitiv Datastream data. The right figure reports the proportion of overlapping constituents of Ftse Mib and Mib ESG; volatility is the annualised standard deviation expressed in percentage values. Mib ESG index was launched on the 18 October 2021.

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Fig. 1.5 – Listed firm ESG scores in the euro area and in Italy: trends by sector

Source: calculations on Refinitiv Datastream data. Refinitiv ESG scores range between 0 (minimum value) and 100 (maximum value) and refer to EuroStoxx50 and Ftse Mib constituent lists. Out of EuroStoxx50 firms, issuers with an ESG score were 46 in 2007 and 50 in 2022. Out of Ftse Mib firms, issuers with an ESG score were 21 in 2007 and 39 in 2022. Sectors correspond to ICB industry classification taxonomy.

Fig. 1.6 – Listed firm ESG scores in the euro area and in Italy: trends by pillar

Source: calculations on Refinitiv Datastream data. Refinitiv ESG scores range between 0 (minimum value) and 100 (maximum value) and refer to EuroStoxx50 and Ftse Mib constituent lists. Out of EuroStoxx50 firms, issuers with an ESG score were 46 in 2007 and 50 in 2022. Out of Ftse Mib firms, issuers with an ESG score were 21 in 2007 and 39 in 2022.
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Fig. 1.7 – Attributes of Italian listed firms by ESG score
(data as of end of May 2022)

Source: calculations on Refinitiv Datastream total market constituent list for Italy. The list includes 158 listed firms, representing around 80% of Italian market capitalisation, of which 123 with an ESG score by Refinitiv ranging between 0 (minimum value) and 100 (maximum value). Firms are grouped into two subsamples depending on whether their ESG score is above or below the sample median.

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Source: Refinitiv Eikon. CBI green category includes green bonds certified by the Climate Bond Initiative (CBI) and green bonds aligned to CBI requirements. Data retrieved on 18 May 2022.

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Source: Statista.

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Source: Assogestioni. Art 8 SFDR and art.9 SFDR categories include funds promoting ‘environmental or social characteristics’ and funds targeting ‘sustainable investments’, within the meaning of, respectively, of article 8 and 9 of Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector (SFDR).
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Source: calculations on Statista data and Coinopsy data https://www.coinopsy.com/dead-coins/. Figure on the right refers to cryptocurrencies that: have been abandoned, used as scam, whose website is down, have no nodes, have wallet issues, don’t have social updates, have low volume or whose developers have walked away from the project.

Fig. 2.2 – Capitalisation of cryptocurrencies and other assets over time (billions of USD)

Source: calculations on Statista data. ‘Precious metals’ represents the most reliable estimate for the total cumulative weight of gold, silver, platinum, and palladium mined at the end of the year, including all prior years, multiplied by the spot price of each metal, usually at the London Commodity Exchange, on the last trading day of the year for the given exchange, usually December 30. Estimates on mined weight of any given metal were taken primarily from the US Geological Survey, and supplemented by literature and secondary sources, particularly for platinum and palladium, for which data is scarce. ‘Equities’ represents the combined annualised market capitalisation of companies listed on all exchanges that are a member of the World Federation of Exchanges (WFE). ‘Real estate’ represents an estimation that includes both residential and commercial real estate, as well as agricultural land. Estimates are based on statistics and fair market value of real estate on the market.
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(average values between 31 May 2021 and 31 May 2022)

Source: calculations on Refinitiv Datastream data. As for cryptocurrencies, calculations refer to Bitcoin, Ethereum and Litecoin. Figure on the right reports volatility estimated as the annualised standard deviation computed on daily capitalisation changes over 31 May 2021 – 31 May 2022.

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**Fig. 2.4 – Main cryptocurrencies by market capitalisation**

Source: calculations on CoinMarketCap data. Figure on the left reports data on cryptocurrencies included in the Nasdaq Crypto Index.

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**Fig. 2.5 – Main stablecoins by market capitalisation**

(billions of USD)

Source: calculations on Statista data.
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Source: Company websites. Reserves are as of March 2022 for Tether, April 2022 for USD Coin, April 2022 for Binance USD and June 2022 for DAI. At the time, DAI collateralisation is more than 150% while the other stablecoins have assets valued at least equal to their outstanding issuance.

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Source: calculations on Statista data. Main cryptocurrency exchanges based on 24h volume in the world on 2 May 2022.

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Source: https://defipulse.com (USD prices for token data provided by CoinGecko), DeFi Lama, Statista. Total value locked is the total value of cryptoassets locked in DeFi applications and is calculated as total number of tokens held by a protocol multiplied by token price expressed in USD. ‘Decentralised exchange’ is an exchange that does not require users to deposit funds to start trading and does not hold the funds on behalf of the users as they trade directly from their own wallets. ‘Decentralised lending’ means lending from decentralised providers. ‘Bridge’ are protocols that connect tokens from one network to another. ‘Yield farming’ or liquidity mining allows DeFi market participants to lock up their crypto-asset holdings in applications and receive rewards in exchange of the provision of liquidity to the system.
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Source: CB Insight. Data include equity financings into private companies only. Funding rounds raised by public companies of any kind on any exchange are excluded, even if they received investment from a venture firm.

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Source: Cambridge Energy Consumption Index. In the left graph, monthly electricity consumption figures are the sum of daily consumption figures calculated by assuming constant power usage over 24 hours at the daily best-guess estimate of Bitcoin’s network power demand. The cumulative consumption is the sum of monthly totals. In the right graph, hashrate measures the total computing power in proof-of-work network like Bitcoin.
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Fig. 2.12 – Trends in cryptocurrency markets
(daily data up to 31 May 2022; 29 April 2020=100)

Source: calculations on Refinitiv data. Nasdaq crypto index tracks the performance of digital assets traded in US$; its current composition is: Bitcoin (weight equal to 67%), Ethereum (weight equal to 30%), Litecoin (weight equal to 0.75%), Chainlink (weight equal to 0.64%), Uniswap (weight equal to 0.35%), Bitcoin cash (equal to 0.44%), Stellar Lumens (weight equal to 0.32%), Filecoin (weight equal to 0.3%), Axie Infinity (weight equal to 0.36%), Sandbox (weight equal to 0.27%). CMC 200 Index includes first 200 cryptocurrencies by market capitalisation. Six Swiss 10 crypto index includes the first 10 cryptocurrencies by market capitalisation traded on Swiss Stock Exchange. Figure on the right reports volatility computed as the difference between the highest and the lowest price recorded during each day (range based indicator).

Fig. 2.13 – Trends in stablecoin markets
(daily data up to 31 May 2022)

Source: Refinitiv Datastream, Nasdaq, CoinMarketCap. FX stablecoin index includes main stablecoins traded in US$ by market capitalisation. Terra Luna capitalisation data are not available after 30/04/2022.
Fig. 2.14 – Trends in futures of main cryptocurrencies
(daily data up to 31 May 2022)

Source: calculations on Refinitiv Datastream and CoinmarketCap data. Figure on the left reports the volume measured as total number of contracts.

Fig. 2.15 – Turnover of crypto derivatives exchanges
(daily data up to 23 May 2022)

Source: calculations on Coingecko data. Data are related to the main crypto derivatives markets, 48 centralised exchanges and 7 decentralised exchanges. The volume traded is represented as an amount.

Fig. 2.16 – Bitcoin returns and volatility compared to non-digital assets
(average values between May 2021 and May 2022)

Source: calculations on Refinitiv Datastream data. Figure on the left reports volatility estimated as the annualised standard deviation computed on monthly return from 30 April 2021 to 30 April 2022. Figure on the right reports monthly average return.
LINKAGES WITH TRADITIONAL MARKETS

Fig. 2.17 – Trends in the interconnection among main cryptocurrencies and selected assets (weekly data up to 31 May 2022)

Source: calculations on Refinitiv Datastream data. In the graph 52-week rolling pairwise correlations between Bitcoin and S&P500, Stoxx Europe 600, Ftse Mib, Ethereum, gold return time series are represented. Gold correlations are computed on Goldman Sachs gold index.

Fig. 2.18 – Interconnections among main cryptocurrencies and selected assets over selected periods

Source: calculations on Refinitiv Datastream data. In the graph pairwise correlations are represented. Gold correlations are computed on Goldman Sachs gold index.
Fig. 2.19 – Centralised cryptoasset exchanges by cybersecurity and trust scores
(distribution by score)

Source: Coingecko. Figure on the left reports data referring to 120 exchange platforms that are currently assigned a cyber score. The cybersecurity score evaluates how well prepared an exchange is against external facing threats towards its platform (servers, web services, front-end), users (account safety features) etc. Figure on the right reports data referring to 379 platforms that are currently assigned a trust score. The trust score is an indicator of the availability and the reliability of statistics (such as volume traded, historical trading data, bid-ask spreads, tickers data, order book data) provided by the platform; the higher the values of the trust score the higher is rated the information made available by the platform. For methodological details on trust and cyber score see https://blog.coingecko.com/trust-score-explained/.

Fig. 2.20 – Total values of cryptocurrencies received by illicit addresses
(billions of USD)

Fig. 2.21 – Cryptocurrency frauds reported to the US Federal Trade Commission
(amounts in millions of USD for the figure on the left; amounts in USD for the figure on the right)

Source: Federal Trade Commission (FTC). The Federal Trade Commission (FTC) is the main agency that collects scam reports inside the United States through the following link https://reportfraud.ftc.gov/#/. The figure on the right refers to the data collected from 1st January 2021 through 31 March 2022.

Fig. 2.22 – Amount of stolen funds from DeFi projects by hackers
(monthly data up to May 2022; amounts in millions of USD)

Source: The Block, https://www.theblockcrypto.com/data/decentralized-finance/exploits. Flash loans are undercollateralized lending features commonly used in decentralised finance (DeFi) hacks. Data as of May 2022 are incomplete.
**INTEREST IN CRYPTOASSETS**

**Fig. 2.23 – Interest in cryptocurrencies over time based on the web searches**
(monthly data up to May 2022)

Source: Google Trends. Volume of searches made on Google of the words ‘bitcoin’, ‘ethereum’, ‘cryptocurrency’ and the name of the largest crypto exchange platform (platform 1 in the graphs). Indices are calculated as the ratio between the number of searches on a topic and the total number of searches made in each geographical area over the period considered. Indices range between 0 and 100, where 100 represents the highest frequency of searches detected.

**Fig. 2.24 – Owners of cryptoassets by country**
(data as of 2021, share of country population in percentage; millions of owners in brackets)

Fig. 2.25 – Assets under management of funds investing in cryptoassets
(amounts in billions of USD)

Source: Crypto Fund Research; https://cryptofundresearch.com/q1-2022-crypto-fund-report/. Figures refer to crypto hedge funds, venture funds, hybrid funds, private equity funds, fund of funds, and passive funds. Regional composition is based on the fund’s primary office location.