Ádám Bereczk[25] – Zoltán Musinszki[26] – Edina Hlad[27]

Market Dynamics at Play: The Convergence Phenomenon in Carbon Credit Project Valuations

This study examines the capital market valuation of carbon trading projects in the growth stage, focusing on the impact of project size and classification. We analyze four projects launched in 2021 and 2022, using changes in market capitalization as a proxy for valuation, based on investor perception. A major conclusion of the paper is that the market capitalization of different projects converged over the study period. This phenomenon was evident despite the differences in the amount of capital raised, launching market caps, size of partner networks and timing of launching. We argue that the novelty of the sector fosters investor focus on sectoral narratives, leading to converging project valuations. This convergence in market capitalization should be factored into tokenomics design and market-making activities to ensure the financial sustainability of these blockchain projects.
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Introduction

In the face of an escalating environmental crisis, the world is urgently seeking innovative solutions to mitigate its impact and foster a sustainable future. Blockchain technology holds immense potential to revolutionize environmental solutions, particularly in the context of climate change mitigation and adaptation. Blockchain's inherent characteristics of transparency, immutability, and decentralization can address critical challenges in environmental management and foster collaboration among diverse stakeholders. In carbon emissions tracking and trading, blockchain projects are developing platforms to facilitate transparent and verifiable carbon credit markets. By leveraging blockchain's immutable ledger, these platforms can ensure the integrity of carbon offsets, incentivize emission reduction efforts, and promote sustainable practices among industries.

The convergence of blockchain technology and sustainability has given rise to a burgeoning field of blockchain based project projects dedicated to combating climate change and promoting environmentalism. These projects, often called climate credit „crypto" projects, leverage the unique features of blockchain technology to facilitate carbon offsetting, incentivize sustainable practices, and promote transparency in environmental impact measurement. Climate change is one of the most pressing challenges facing humanity today. The scientific consensus is clear: human activities are causing the Earth's climate to change unprecedentedly, with potentially devastating consequences. In response to this crisis, many individuals and organizations seek ways to reduce their carbon footprint and support sustainable initiatives. Blockchain technology, the underlying platform for cryptocurrencies such as Bitcoin and Ethereum, offers several potential benefits for environmental initiatives. Blockchain can be used to create tamper-proof records of carbon emissions, which can help to ensure that emissions reductions are accurately tracked and verified. Blockchain can be used to create decentralized marketplaces for carbon offsets, making it easier for individuals and businesses to offset their emissions. Blockchain also can be used to create smart contracts, which can automate the enforcement of environmental regulations. In recent years, there has been a surge in the number of crypto projects focused on addressing climate

[25] lecturer, University of Miskolc, adam.bereczk@uni-miskolc.hu
[26] associate professor, University of Miskolc, zoltan.musinszki@uni-miskolc.hu
[27] student, University of Miskolc, hlad.edina@student.uni-miskolc.hu

change. These projects vary widely in their approach and functionality, but they all share the goal of using blockchain technology to impact the environment positively.

The costs of climate change

Climate change refers to long-term shifts in temperature and weather patterns, primarily caused by human activities, notably the burning of fossil fuels that release greenhouse gases into the atmosphere. Although our planet can absorb greenhouse gases through photosynthesis, forests and oceans cannot offset such a large amount. These changes are already having a significant impact on the global economy, and the effects are expected to intensify in the coming decades. (Turrentine et al.,2021) Moreover, extreme weather events, such as violent storms and floods, are wreaking havoc, causing accidents, contaminating drinking water, and leading to widespread community displacement. These adverse health consequences underscore the urgent need to address the escalating climate crisis. Climate change continues to exert a profound and far-reaching influence on industries and industrial assets worldwide, manifesting in direct and indirect impacts. Recent research has shed light on the financial burdens associated with extreme weather events, which disrupt industrial operations and lead to significant economic losses. While the precise cost of these damages remains to be fully quantified, current trends underscore the inevitable negative repercussions of climate change on urban economies. (Gasper et al., 2011) For cities, climate change is an external effect that causes energy supply problems, infrastructure stresses, food and water shortages, and disrupts various projects. All of these changes influence fiscal policy and slow down expansionary projects as the money and human resources that would be used and deployed in projects are more likely to be used for reconstruction. (Allam & Jones, 2019) The overall impact of environmental shifts on economic growth is uncertain, but the costs of mitigating environmental shifts, such as reducing greenhouse gas emissions, are substantial.

Blockchain as a solution

Emerging technological advancements provide a promising avenue for confronting the challenges of climate change mitigation and adaptation. Within this context, a range of innovative solutions, including those leveraging blockchain technology, offer the potential to significantly curtail greenhouse gas emissions, optimize energy utilization, and foster sustainable practices. The global drive to mitigate climate change hinges on reducing greenhouse gas emissions, notably carbon dioxide (CO2). Blockchain projects are developing platforms to facilitate transparent and verifiable carbon emissions tracking and trading, ensuring the integrity of carbon offset programs and promoting sustainable practices among industries. One notable example is Regen Network, a blockchain-based platform that enables transparent and verifiable carbon credit trading. Regen Network, for instance, utilizes smart contracts to ensure accurate and authentic carbon credit transactions, instilling trust in carbon markets. This technology's immutable and decentralized ledger reinforces the integrity of carbon offset programs. Blockchain-enabled traceability platforms empower consumers to make informed choices. Furthermore, blockchain-based renewable energy trading platforms facilitate peer-to-peer energy trading, enabling individuals and communities to generate, sell, and consume renewable energy more efficiently. Finally, secure environmental data management support research, policy decisions, and community action, fostering environmental monitoring, informed decision-making, and public engagement. In summary, blockchain-based solutions are emerging as pioneering instruments to tackle climate-related issues. The immutable and decentralized nature of blockchain's ledger system facilitates transparent and verifiable tracking and trading of carbon emissions. Furthermore, it enables the sustainable management of supply chains, the creation of platforms for trading renewable energy, and the secure handling and sharing of environmental data.

Carbon credit cryptography projects

Carbon credit projects tackle climate change through a multipronged approach. They focus on either preventing future emissions (e.g., renewables replacing fossil fuels), removing existing atmospheric carbon dioxide (e.g., afforestation), or directly reducing emissions from ongoing activities (e.g., building efficiency upgrades). These diverse efforts generate tradable carbon credits, quantifiable units representing the project's positive climate impact. Several organizations, including the UN and World Bank, recognize blockchain's suitability for managing voluntary carbon credits. Compared to legacy systems, blockchain offers advantages like transparency and immutability, facilitating robust accounting and preventing double-counting. Tokenized carbon credits are a cornerstone of Regenerative Finance (ReFi), a branch of Decentralized Finance (DeFi) focused on using digital assets for climate solutions. (Fullerton 2015) ReFi encompasses a diverse range of applications studied across various disciplines like business, law, economics, and computer science. (Gibbons 2020).Research on tokenized carbon credits explores their impact on energy sectors, including sustainable energy transitions and grid efficiency through peer-to-peer trading. Additional research areas include solutions for measurement, reporting, and verification (MRV), and sustainable supply chains. Beyond these areas, studies examine climate market design, ReFi applications and initiatives, the impact of blockchain technology in sustainability, green fintech applications using blockchain, and integrations with legacy carbon markets. (Woo et. al 2021)

Valuation of cryptography projects

While ReFi offers promising avenues for climate action, effectively valuing carbon credit projects remains crucial for ensuring the integrity and impact of the market. While traditional valuation methods offer a starting point, the unique characteristics of environmental projects necessitate a more nuanced approach. The following section analyses four carbon credit projects and explores non-fundamental factors influencing the broader sector. This analysis aims to inform the development of a more comprehensive framework for evaluating carbon credit projects within the ReFi context, paving the way for a more robust and impactful market.

Market capitalization (market cap) reflects the overall market perception of a project's value and future potential, with a higher market cap indicating a higher total value placed on the project by investors. This normally results from solid demand for the project's token exceeding the available supply. (Polk et. al 2004) While „market cap" is not a direct measure of sentiment, a rising market cap can often indicate growing investor confidence in a project's future potential. (Raza et. al. 2019) Additionally, the market cap is frequently used as an indicator for comparing size and valuation within a specific market or ecosystem. (Hu et. al. 2021)

Previous research has shown that non-fundamental factors like speculation and the overall market sentiment can significantly impact crypto asset prices. (Liebi 2022) Launching a token in different climates has different chances of growing. While research on fundamental and non-fundamental drivers of crypto asset prices is relatively extensive, the carbon credit space within the blockchain ecosystem presents a unique situation. Here, a project's ability to generate real-world environmental impact becomes a potential fundamental factor. However, whether this environmental impact translates into higher market valuations for carbon credit projects remains an under-explored question. The factors influencing the expected return on crypto assets remain unclear. These digital assets operate within complex networks of users interacting online. Some theoretical models suggest that the core value of a crypto asset is positively correlated with its network size. This is because a more extensive user base can increase transactional benefits and positive network effects, as documented by Cong et al. (2021). These effects can potentially drive up crypto asset prices and make them more attractive to a broader range of users and investors. In our study we are going to take a look at the related factors and their influence on capital market appreciation of carbon projects. (Liebi 2022)

Data and methodology

The selection of four projects for this study was a deliberate process. After an extensive review of numerous projects in the climate credit crypto space, four were deemed suitable for in-depth analysis based on the following criteria:

1. Project Maturity: The selected projects have a demonstrable track record of operation, indicating stability and a commitment to long-term impact. This was assessed by examining the project's launch date, team experience, and community engagement.
2. Partnership Strength: The projects have established partnerships with reputable organizations, such as research institutions, environmental groups, and blockchain companies. These partnerships demonstrate the project's credibility and potential for impact. The strength and diversity of partnerships were evaluated.
3. Resource Traction: The projects have raised significant capital through token sales or other fundraising mechanisms. This indicates investor confidence in the project's potential and ability to achieve its goals. The amount of capital raised and the sources of funding were considered.
4. Market Liquidity: The project's tokens are actively traded on public exchanges, ensuring investors can quickly enter and exit positions. This liquidity is essential for both investors and the project itself, as it facilitates price discovery and provides a measure of market confidence. Trading volume and market capitalization were pre-evaluated using simple document-studying methods.
5. Data Availability: The projects have a comprehensive public presence, providing detailed information on their operations, impact, and financial performance. This transparency allows for in-depth analysis and comparison. The availability of whitepapers, technical documentation, impact reports, and financial statements was assessed.

By selecting projects that meet these criteria, the study ensures that the findings are based on a robust and representative sample of the climate credit crypto space. The four projects included in the study are KlimaDAO, Toucan Protocol, Regen Network, and Moss Earth. The selection of four projects for this study represents a form of non-probability sampling. This means that the sample only represents some of the population of climate credit crypto projects, and the findings cannot be generalized to all projects in the space. This allows for more in-depth analysis and comparison of these leading projects.

Our study establishes four categories grounded in practical considerations to differentiate the projects under investigation based on their spectrum of activities. While specific projects, like Regen Network's direct tokenization of verified offsets, demonstrably belong to a single category (e.g., "Tokenized Carbon Credits"), many others, such as Moss's blended marketplace and direct project financing model, defy straightforward categorization due to their multifaceted nature. KlimaDAO aligns with the "Carbon Emission Project Financing" category. It primarily raises funds through its KLIMA token, utilizing them to purchase and retire high-quality carbon offsets. Additionally, it incorporates community governance, allowing token holders to vote on DAO operations and carbon offset selection. Toucan Protocol falls under the "Carbon Emissions Marketplaces" category. It is a decentralized marketplace for buying, selling, and fractionalizing tokenized carbon credits. Integrating DeFi protocols like Lido and Curve, it offers liquidity and staking opportunities, connecting carbon offsets to broader DeFi ecosystems. Regen Network belongs to the "Tokenized Carbon Credits" category, explicitly focusing on regenerative agriculture. It creates and manages Regen Credits, tokenized representations of verifiable carbon reductions. The platform allows farmers and project developers to register and sell their credits, facilitating verification and monitoring processes. Moss Earth operates as a "Carbon Emissions Marketplace" project while incorporating elements of "Financing Carbon Emission Reduction Projects." Individuals and businesses can purchase high-quality carbon offsets generated through rainforest conservation projects on their platform. Additionally, some of their revenue directly supports these projects, contributing to their long-term sustainability.

Readily available metrics like retained carbon credits, tokenized carbon credits, and withdrawn carbon credits offer initial insights into the activity volume of climate credit crypto projects. Retained carbon credits as a metric reflects the total amount of carbon sequestered by a project and is valuable for understanding the overall impact. However, it must provide information on credit issuance or retirement, limiting its ability to capture the complete picture of project activity. Tokenized carbon credits indicate the number of carbon credits represented as tokens on a blockchain platform. It highlights the market availability of the credits but does not directly translate to environmental impact or actual retirement. The metric of withdrawn carbon credits represents the number of credits permanently retired from circulation, demonstrating a direct contribution to emissions reduction. However, it must consider the total credit generation or tokenization strategy, potentially providing an incomplete view of project activity. From a measurement viewpoint different metrics measure different aspects. Retained credits do not reflect credit retirement, tokenized credits do not capture impact, and withdrawn credits ignore project goals.

Despite belonging to distinct categories based on their primary functions, the four examined projects exhibit interesting commonalities and overlaps. Notably, all projects aim to mitigate climate change by facilitating carbon offsetting and promoting sustainable practices. Each project employs elements of decentralization, leveraging either blockchain technology or community governance structures. This facilitates transparent operation, fosters increased accessibility and offers potential resistance to censorship. Although the specific applications differ, all projects integrate tokenization in some form. KlimaDAO and Toucan utilize tokens for fundraising and governance, while Regen and Moss tokenize carbon credits. This paves the way for fractional ownership, enhanced liquidity, and the creation of new investment opportunities.

Analysis

The primary objective of this study is to understand the factors influencing the capital market perception of carbon credit projects as measured by changes in market capitalization. The study acknowledges the multifaceted nature of project size, encompassing various contributing elements. Beyond the traditional metric of total capital raised, we incorporate factors like pre-launch fundraising, activity volume, and collaborative project count to create a more comprehensive picture. Additionally, the year of launch is considered to account for potential market maturity effects. In our analysis, we also highlight the possible case-specific influencing factors, utilizing the benefits of a case study approach, and delve into the possible influence of the attributes of crypto markets.

Effect of scale

Acknowledging the multifaceted nature of project size, we studied factors beyond traditional capital raised, such as pre-launch fundraising, activity volume regarding carbon credit management, and collaborative project count.

Capital raised

Initial capital raised through token presales is potentially influential in the future trajectory of the market capitalization of climate credit crypto projects. This early influx of funds is foundational for subsequent growth, shaping investor expectations, project development capabilities, and overall market dynamics. This analysis's premise rests on the notion that presale capital acts as a seed funding mechanism, potentially influencing a project's trajectory in several ways. Larger presales raise investor confidence, potentially leading to higher initial market capitalization and subsequent expectations. Increased funding allows for enhanced development efforts, potentially leading to faster innovation, broader market reach, and as a consequence higher market capitalization. Presale success can generate positive publicity and attract further investment, influencing overall market sentiment.

Table 1.: Key metrics of the examined four projects (in order of capital raised)

Enterprise/ project	Starting year	Capital raised before token launch (Million $)	Number of affiliated projects	Retained carbon credits (Million)	Tokenized carbon credits (Million)	Withdrawn carbon credits (Million)
Regen	**2022**	**10,5**	**15**	**1**	**1**	**0,5**
KlimaDao	**2022**	**17**	**20**	**17,5**	**20**	**1,5**
Toucan	**2021**	**25**	**50**	**21**	**20**	**0,3**
Moss	**2021**	**27,5**	**100**	**1,5**	**1,5**	**1,5**

Source: edited by authors based on project websites, whitepapers and official social media

While the preliminary observations suggest no direct linear correlation between presale capital and current market capitalization, the analysis reveals some intriguing insights. While KlimaDAO and Toucan Protocol, despite moderate presale funding, experienced modest market capitalization growth, Regen Network witnessed a significant increase despite a smaller presale. Conversely, Moss Earth, with the highest presale capital, saw a substantial decline.

Table 2.: Market cap changes of examined projects

Enterprise/Project	Initial market cap (M$)	Actual market cap in 2023 October (M$)
Regen	**2,6**	**4**
KlimaDao	**5,1**	**5,4**
Toucan	**3,5**	**3,9**
Moss	**15**	**4,5**

Source: edited by authors based on data from www.coinmarketcap.com

These initial findings highlight the complexity of the relationship between presale capital and market capitalization in climate credit crypto projects, but at the same time, give new perspectives for conclusions.

While presale funding might not directly determine market performance, it interacts with other factors, such as project development, market dynamics, and investor sentiment, to shape a project's overall trajectory. Further research is necessary to comprehensively understand these intricate relationships and their combined effect on the market capitalization of climate credit crypto projects.

Activity level

Toucan and KlimaDAO boast 21 million and 17.5 million tons retained since launch, leading the pack in carbon retainment, respectively. Their higher numbers suggest larger-scale carbon sequestration efforts than Regen (1 million tons) and Moss (1.5 million tons) since their respective launch dates. However, it is essential to consider that different methodologies can lead to varying carbon sequestration estimates. Toucan and KlimaDAO might focus on larger-scale projects (e.g., forestry), while Regen and Moss might prioritize smaller, community-oriented projects. While KlimaDAO and Toucan both tokenize 20 million carbon credits, Regen only has 1 million, and Moss has 1.5 million, highlighting differences in their tokenization strategies. Withdrawn credits remain low across all projects, and several possibilities emerge: limited current impact, cautious credit retirement strategies, or a focus on tokenization for fundraising or liquidity. Projects with high activity performed relatively well. However, we can not prove **clear correlation** between activity and market cap changes with such a small sample. Further analysis with a larger data set, controlling for confounding factors, and considering different valuation metrics alongside market cap might be necessary to reach a more conclusive answer. For this study, the emphasis is on something other than the exact approach used for the correlation questions.

Extent of network

The true impact and reach of sustainability crypto projects can be more comprehensively evaluated by examining their partnership network. Partnerships can indicate a project's ability to collaborate, integrate with the broader ecosystem, and potentially achieve larger-scale environmental impact. While a carbon credit project's sheer number of projects may initially indicate its market value, a more nuanced analysis is necessary to understand the interplay between project scope and capital market perception. The "Economy of Scope" theory posits that firms can achieve cost efficiencies by sharing resources and capabilities across diverse products or services. However, this diversification also presents potential challenges, as managing a broader portfolio can introduce logistical and communication complexities, potentially impacting operational efficiency and transparency. The observed case of Moss Earth, with its extensive network of partnered projects, exemplifies the potential limitations of solely focusing on project quantity. While their vast portfolio might initially suggest a robust market position, it could also indicate vulnerabilities associated with over-reliance on specific project types or partnerships. Focusing solely on rainforest conservation might limit their exposure to emerging markets or investor preferences. Additionally, managing many diverse projects could introduce logistical and communication challenges, potentially impacting efficiency and transparency.

Our analysis of four sustainability-focused crypto projects reveals a surprising lack of correlation between the size of a project's partner network and its market capitalization appreciation. Counterintuitively, the project with the highest market capitalization growth, Regen Network, has the lowest number of partnerships (15). In contrast, Moss, the project with the highest market capitalization decline, has the highest number of partnerships (100).

Effect of timing

Older projects had a longer time to develop, establish partnerships, and build a track record, potentially leading to higher market cap valuations. While all the projects are in the early stages of development, KlimaDAO and Regen had less time to demonstrate their impact and attract long-term investors.

Also, a project launched in a bull market might benefit from increased investor sentiment and have more time to establish itself before facing significant competition. The two factors mentioned regarding timing are interrelated and can amplify each other's effects. KlimaDAO and Regen launched in 2022, while Toucan and Moss launched in 2021. The crypto market experienced significant growth in 2021, potentially benefiting Toucan and Moss by attracting early investors and liquidity. 2022 saw a market downturn, which could have impacted KlimaDAO and Regen's market outlooks. Despite the assumptions, the better-performing projects were launched in 2022, and Moss, with a severe decline in market cap, launched in 2021. It is also a factor that, according to our methodology, we compared projects' starting and actual (2023) market caps so that the market downturn could be reflected in all of the market caps regardless of the launch date.

Case-specific influencing factors

Naturally, market cap changes in the climate credit crypto space are influenced by a complex interplay of factors beyond what was discussed. A closer look at KlimaDAO, Regen Network, and Toucan Protocol reveals a more nuanced picture. KlimaDAO's stagnant core function and focus on internal governance may explain its modest increase. Regen Network's success in project implementation, partnerships, and DeFi integration likely fueled its significant growth. Toucan Protocol's continuous DeFi engagement, market expansion, and strong community contribute to its slight increase. According to this, the study method highlights the multifaceted relationship between project characteristics and market cap performance. While quantitative measures can play a role, it is crucial to consider factors such as project implementation effectiveness, strategic partnerships, DeFi integration, and ongoing market engagement.

Influence of market dynamics

The crypto space is known for its volatile market sentiment and trends. Suppose a particular category of projects experiences significant positive performance. In that case, investors may extrapolate this success to other projects within the same category, leading to expectations of similar returns even if the projects have fundamental differences. This phenomenon can be further amplified by social media and news coverage, which often focus on broad trends rather than individual project nuances.

Social media and news coverage often play a significant role in amplifying herd mentality. These platforms frequently focus on broad trends and headline-grabbing narratives, potentially overlooking the critical nuances that differentiate individual projects within a specific category. This can lead to oversimplification and misinformed investment decisions, as investors may need to pay more attention to crucial factors such as Project-specific implementation, strategic partnerships, DeFi integration, and Community engagement. For example, for KlimaDAO, the project's stagnant core function and focus on internal governance might be particularly susceptible to herd mentality. If investors perceive the broader climate credit crypto space experiencing a downturn due to unforeseen factors, KlimaDAO's limited perceived innovation and impact could exacerbate negative sentiment towards the project. Conversely, Regen Network's focus on effective project implementation, strategic partnerships, and DeFi integration might offer some protection against the herd mentality. Their strong fundamentals and tangible impact could mitigate the adverse effects of broader market fluctuations.

Limitations of the research

This research employed market capitalization changes following exchange listings as a gauge of investor sentiment towards four climate credit crypto projects: KlimaDAO (KLIMA), Toucan Protocol (TOUC), Regen Network (REGEN), and Moss Earth (MOSS). While this approach offers valuable insights, we need to acknowledge several limitations inherent to this methodology:

1. Market cap primarily reflects fluctuations in token price, offering only a partial glimpse into investor sentiment. While other factors like community engagement and transparency might be crucial, exploring them requires additional analysis of token velocity, DeFi integration, and engagement on alternative platforms. However, market cap remains valuable due to its simplicity and widespread application, allowing for identification of emerging projects, tracking market trends, and conducting basic project performance comparisons.
2. As discussed earlier, the analysed projects belong to distinct categories with unique functions and target audiences. Attributing solely market cap changes to investor sentiment without considering these category-specific differences could lead to misleading conclusions.
3. Market-wide trends, cryptocurrency price fluctuations, and regulatory changes can significantly impact market cap movement. Isolating the specific impact of exchange listings on individual projects within this dynamic environment can be challenging.
4. The limited sample size (four projects) raises concerns about generalizability to the broader sector. However, this case study approach, while not definitive, offers valuable insights into these specific projects. Case studies are a recognized research method, allowing detailed exploration of real-world situations and fostering critical thinking and business acumen.

Further Research Directions

This study examined the capital market valuation of carbon trading projects during their growth phase. The findings suggest that despite initial market capitalization differences, project valuations converged over the studied period (2021-2023). This highlights the importance of market narratives and investor perceptions in shaping project valuations. Several avenues for future research are proposed to investigate these findings further and broaden the study's implications. The study could be extended to examine different token types within the carbon trading

cryptocurrency space, such as utility tokens, governance tokens, and stablecoins. Expanding the time frame and collecting more data points enable a more comprehensive analysis of trends and changes in market convergence over time. Qualitative methods, such as interviews with investors and project developers, could provide valuable insights into the factors driving market convergence. Network analysis could be applied to explore the interconnectedness of projects and how their valuations influence each other. The study could be extended to examine how the regulatory landscape affects market convergence.

Conclusions

This study investigated how capital markets evaluate carbon credit projects during their growth phase. We explored the influence of project size, activity type, and sector on market cap changes from the token launch to the last year's available data. Our main finding reveals that despite initial market capitalization differences, project valuations converged over the studied period (2021-2023). This suggests investor judgment goes beyond project size and fundamentals, likely influenced by sector-specific narratives and perceptions. Investors seem to categorize carbon trading projects similarly and compare them to other investment opportunities within this category. Notably, the convergence occurred even though the project with the lowest market cap experienced a significant increase, while the one with the highest market cap suffered a substantial loss. Despite partnership advantages, network size, and financial resources, the more extensive project did not outperform. This finding suggests that project tokenomics and market-making strategies could benefit from considering the impact of market narratives. Based on the results, aligning initial token prices with sector-specific value perceptions and implementing proactive measures to ensure liquidity as market convergence occurs may be valuable strategies.

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Szerzőink figyelmébe

A szerkesztőség kéri a szerzőket, vegyék figyelembe a formai megjelenésre vonatkozó alábbi szempontokat:

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A „Tanulmány" rovatban maximálisan 35.000, a többi rovatokban maximálisan 18.000 karakter terjedelmű tanulmány közölhető.
A tanulmány elejére öt soros összefoglalót, valamint 3-5 kulcsszó megnevezését és JEL-kód meghatározást kérünk.
A szöveget fájlban kérjük leadni, lemezen vagy e-mailen. (MS WORD bármelyik változatában lementve.)
Kb. 10-15 sorban rövid összefoglalót kérünk a tanulmányról angolul, valamint a cikkben szereplő ábrák és táblázatok címét is kérjük angolul.
Kérjük a szerző adatainak megadását az alábbiak szerint: név, tudományos fokozat, beosztás, munkahely

Szöveg formázása

Oldalméret: JIS B5 – 18,2 x 25,7 cm.
Margók: fent: 2,22, alul: 2,5, balról: 2,5, jobbról: 2 cm; fejléc és lábléc: 1,25 cm.
Betűtípus és betűméret: Times New Roman 10-es, a jegyzetek 9-es betűmérettel.
Bekezdések: cím után nincs behúzás, egyébként 0,7 cm, a bekezdések között sorkihagyás nincs.
Címek: stílusbeállítás nélkül, fő cím és a fejezetek címek vastag, az alfejezetek címei vastag és dőlt betűtípussal.
Szövegközi kiemelések: szimpla dőlt betűtípussal.

Ábrák, táblázatok:

Terjedelmi okok miatt kérjük, hogy egy tanulmányban legfeljebb 4-5 ábra szerepeljen.
Az ábrákat (pl.: térképek, diagramok, rajzok, fényképek) és táblázatokat megfelelően formázva a szövegbe építve kérjük elküldeni. A fénymásolással, szkenneléssel készült ábrákat nem tudjuk elfogadni, mert a nyomda számára nem megfelelő a minőségük. Színes ábrák közlésére sincs módunk. Mindenképpen szükséges az ábrák és táblázatok külön számozása (pl.: 1. ábra; 2. ábra; 1. táblázat; 2. táblázat), s hivatkozásuk pontos feltüntetése a szövegközben, zárójelben, döntve: (1. ábra) vagy (1. táblázat).
Az ábra címét az ábra alatt, középen elhelyezve, a táblázatok címét a táblázat fölött balra igazítva kérjük elhelyezni. Az ábrák és táblázatok alatt fel kell tüntetni a forrást is. Ha saját készítésű az ábra, akkor a „Forrás: Saját szerkesztés, ill. Saját számítás." megnevezést kell használni.

Irodalmi hivatkozások, jegyzetek:

Az irodalmi hivatkozásokat minden esetben kérjük feltüntetni, a szerző vezetéknevét és a kiadását évét zárójelbe téve. Pl.: (Conti 1993). Pontos idézetnél az oldalszám is szükséges. Pl.: (Conti 1993, 76) vagy (Conti 1993, 76-86). A hivatkozások ne lábjegyzetként, hanem csak a fent leírt formában kerüljenek a szövegbe.
Az irodalomjegyzékben csak olyan tételek szerepeljenek, amelyekre a szövegközben hivatkozás található, s minden meghivatkozott irodalmat feltétlenül fel kell tüntetni az irodalomjegyzékben.
A jegyzeteket kérjük a szöveg végén, számozott formában elhelyezni. A jegyzetek a főszöveg kiegészítéseit tartalmazzák, ne legyen bennük pl. ábramagyarázat, hivatkozás.

A szöveg után kérjük beírni az irodalomjegyzéket, a következő alapformákban:
Könyv: szerző (megjelenés éve): *A mű címe*. A kiadás helye: a kiadó neve.

Folyóirat: szerző(k) (a megjelenés éve): A cikk címe. *A folyóirat neve*. (Az évfolyam sorszáma), a szám sorszáma, a cikk kezdő és befejező oldalszáma.
Gyűjteményes kötetben szereplő cikk: szerző(k) (a megjelenés éve): A cikk címe. In: *A gyűjteményes kötet címe. (*szerk. vagy ed(s): Szerkesztő(k) neve), a kiadás helye: a kiadó neve, a hivatkozott írásmű kezdő és befejező oldalszáma.

Példák:
CRONAUGE, U. (1992): Kommunale Unternehmen. Berlin: Erich Schmidt Verlag
ALCHIAN, A.-DEMSETZ, II. (1972): Production, information costs and economic organisation. *America Economic Review*, 2. 775-795.
PÉTERI G. (1991): Az önkormányzatok és oktatási intézményeinek viszonya, finanszírozási kérdések. In: Önkormányzat és iskola. (szerk.: Kozma T.) Budapest: Oktatáskutató Intézet, 122-154.

Köszönjük!

Szerkesztőség

Notes for Contributors

The editorial board of the journal welcomes studies on economic, regional and social issues in Hungarian and in English language. Our journal was launched in 2004. It is published four times a year from 2021 (of which once in English and three times in Hungarian). We are waiting for studies, essays and book reviews submitted for the first publication only. The studies are rated by two double-blind reviewers in each case.

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Please provide the author's details as follows: name, academic degree, position, job.
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Examples:

Cronauge, U. (1992): Kommunale Unternehmen. Erich Schmidt Verlag, Berlin.

Alchian, A.-Demsetz, II. (1972): Production, information costs and economic organisation. American Economic Review (XII.) 2. pp. 775-795.

Péteri G. (1991): Az önkormányzatok és oktatási intézményeinek viszonya, finanszírozási kérdések. In: Önkormányzat és iskola. (szerk.: Kozma T.) Oktatáskutató Intézet, Budapest, pp. 122-154.

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