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Gate Research: Data Insights Behind the Rapid Growth of Memecoin Launchpad Pump.fun

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Abstract

1. Memecoins have become one of the hottest topics in the 2024 crypto market. According to data from CoinMarketCap, the total market capitalization of memecoins surged from $22.28 billion to $96.67 billion in 2024, achieving an impressive 433% growth.

2. Solana's token issuance volume leads all major ecosystems. In 2024, the average number of tradable tokens added weekly on Solana's decentralized exchanges (DEX) reached 106,200, a 983% increase from 10,800 at the beginning of the year. More than 50% of these tokens originated from the Pump.fun platform. Solana has emerged as the platform for memecoin creators and traders.

3. Pump.fun has shown strong momentum, becoming one of the most active protocols in the crypto space. As of February 5, 2025, the platform has accumulated transaction fees exceeding 2.76 million SOL and issued 7.5 million tokens, with over 98,000 tokens successfully launched on Raydium.

4. In January 2025, tokens that were launched through Pump.fun accounted for 54% of the total transactions on Solana-based DEXs. The proportion of non-voting transactions on the Solana network also rose, reaching 25% in January 2025. This has played a significant role in boosting Solana's overall network activity.

5. The notable wealth effect has drawn more users to participate. For instance, Fartcoin's price surged 105,118 times compared to its initial price on Pump.fun, and saw a 6,307-fold increase relative to its initial liquidity price on Raydium. Similarly, the prices of WOULD and arc tokens increased by 51,781 times and 36,391 times, attracting large numbers of speculators.

6. After a brief surge, 99.69% of the memecoins issued on Pump.fun eventually fell back to their initial launch prices, ultimately returning to zero.

7. New entrants, including projects like SunPump and Moonshot, are now competing in the memecoin launchpad space, but Pump.fun remains in the lead.

Keywords:

Memecoin, Solana, Token Issuance, Pump.fun

1 Introduction

Over the past year, memecoins have become one of the hottest narratives in the crypto market. According to data from CoinMarketCap, the total market capitalization of memecoins surged from $22.28 billion to $96.67 billion in 2024, representing a growth of 433%. At the same time, their share of the total cryptocurrency market capitalization increased from 1.35% to 3.38%. This phenomenon reflects the strong interest in meme culture on the market, highlighting the significant potential of memecoins in attracting capital inflows and investor attention.

With the rapid expansion of the memecoin ecosystem, various innovative memecoin launch platforms have emerged to meet the market's growing demand for new memecoin projects. Pump.fun has quickly become an industry focal point due to its unique design and effective market-driving capabilities, helping projects launch rapidly. In this article, we will explore in detail the operational mechanisms of Pump.fun and the market trends revealed by its data.

2 Overview of Pump.fun

2.1 Background of Pump.fun

2.1.1 Memecoins' Widespread Popularity Among Users

The rise of memecoins in the crypto market can be attributed to three key factors:

1. **Wealth Effect: The Temptation of Overnight Riches**
   The biggest draw of memecoins lies in their potential to create wealth, and this wealth effect is particularly pronounced in the crypto market. Many investors are attracted by the "low investment, high return" narrative, where some users start with just $100 and make $500,000 in a short period. While such cases are not the norm, they have shaped the market image of memecoins—anyone could seize the opportunity and become an overnight millionaire. This potential for massive returns draws many investors to take risks, further driving market activity.

2. **The Thrill of "Victory or Defeat in a Single Decision"**
   Investing in memecoins is often compared to playing a PVP (player versus player) game, where the core experience is the high-risk, high-reward gamble. Just as players experience an adrenaline rush in fast-paced, ever-changing games, investors in memecoins experience similar psychological thrills. Token prices fluctuate rapidly, market trends are

hard to predict, and every decision could lead to huge gains or losses. The real-time volatility and uncertainty immerse participants in an environment where victory or defeat is always on the line, enhancing the entertainment value and appeal of the investment.

3. **Community Culture: Fostering a Sense of Belonging and Identity**
   The success of memecoins is largely supported by their strong community culture. Behind each memecoin, a group of highly active and passionate supporters often gather on social platforms such as Discord and Telegram. These communities share the coin's vision, create cultural symbols, and continually attract new participants. This community atmosphere gives users a sense of belonging and identity, akin to a newly emerging "religion." For many, investing in memecoins is not just a financial decision but also a form of cultural expression and even a way to challenge the mainstream.

With their tremendous wealth effect, game-like gambling thrills, and strong community cultures, memecoins have become a unique and phenomenon-driven presence in the crypto market.

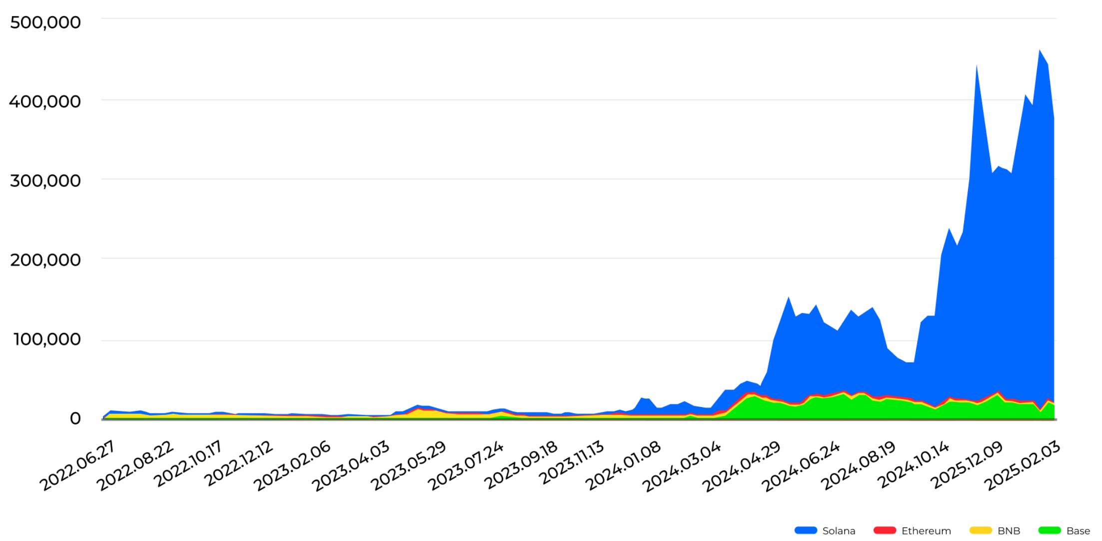
2.1.2 Solana: The Hub for Memecoins

Solana has gradually become a hub for memecoins in recent years, thanks to its unique on-chain advantages and the vibrant community atmosphere surrounding memecoins. It has provided a solid foundation for the rapid development of this category of tokens. Compared to other mainstream public blockchains, Solana stands out due to its high throughput (processing thousands of transactions per second) and extremely low transaction fees, enabling memecoins to facilitate high-frequency, low-value transactions with low barriers to entry. Its core technology, the Proof of History (PoH) consensus mechanism, ensures a fast and low-cost transaction experience, making it a perfect match for the high transaction efficiency that memecoins demand.

Solana's community has also played a crucial role in supporting and embracing meme culture. While the FTX collapse severely impacted the Solana ecosystem, the memecoin Bonk emerged as a surprising success amidst this downturn. As a community-driven, rebellious project, Bonk aimed to oppose centralized economic models like those of FTX and Alameda by creating a fair and fun token ecosystem. More than 50% of Bonk's tokens were airdropped to Solana community members, and in return, multiple Solana-based projects integrated Bonk as a payment option[1].

Today, Solana has become the platform of choice for meme project founders and traders. Data shows that in 2024, the average weekly number of tradable tokens added to Solana's decentralized exchanges (DEX) reached 106,200, a 983% increase from 10,800 at the beginning of the year, far outpacing other ecosystems. This indicates that Solana's technical capabilities and community cohesion drive the memecoin ecosystem’s continuous prosperity.

Figure 1: The number of tokens issued on Solana significantly outpaces other ecosystems[2]



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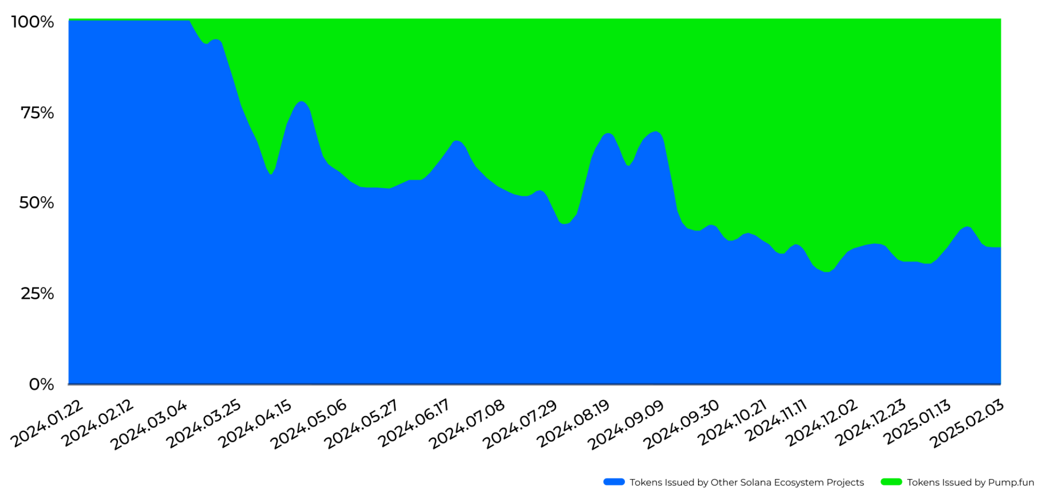
Amid the heightened activity of memecoins on Solana, many participants have joined the space, hoping to capitalize on the memecoin narrative. However, Pump.fun quickly became prominent due to its simple, fast token issuance model. Data reveals that over 50% of the new tokens issued on Solana come from Pump.fun.

Figure 2: The proportion of tokens issued by Pump.fun continues to grow in the Solana ecosystem[3]



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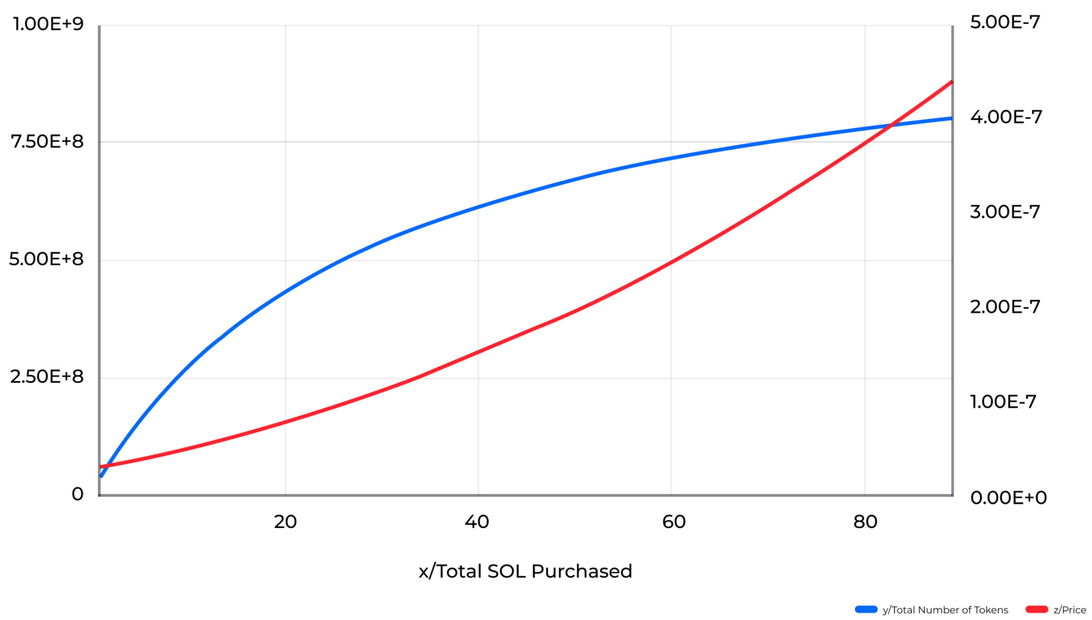
2.2 Product Operation Mechanism

Pump.fun is an innovative memecoin issuance platform that allows anyone to easily create and launch their own tokens. Through Pump.fun, users don't need a technical background or significant funding. They can quickly launch their memecoin projects by filling in basic token information (name, description, logo, etc.) through an intuitive interface. The default total supply for each token is set at 1 billion.

2.2.1 Fundraising Phase on the Pump.fun Platform

After the token is issued, the issuer does not need to invest funds in market-making. The Pump.fun platform automatically creates a virtual liquidity pool. The initial price of each token is 0.000000028 $SOL (calculated based on the SOL price of $230, which is approximately $0.0000064). Users can only purchase the token using SOL, and as the demand for purchases increases, the token price will gradually rise. Each transaction incurs a 1% transaction fee during this fundraising phase, which serves as the platform's fee. Once the token's market capitalization reaches $100,000, it will enter the next phase.

Figure 3: Pump.fun Pricing Curve[4]



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2.2.2 Adding Liquidity on Raydium

Once the token price reaches 0.0001 (or when the market capitalization hits $100,000), the platform automatically adds the raised SOL and remaining tokens to Raydium liquidity. When the token is launched on Raydium, the issuer will receive a reward of 0.5 SOL. Afterward, any user can continue to add liquidity to the token. Compared to the initial virtual price of the token when it first launched, its price will have risen by 15.62 times.

The mechanism design, which starts by using a virtual liquidity pool for token sale on Pump.fun and then moves to a successful listing on Raydium, provides Pump.fun with the following unique advantages:

- **Lower Funding Barriers, Promoting Decentralization**
  The one-click launch feature allows creators, community members, and developers to publish memecoins at a low cost and with minimal barriers to entry. This design enables more participants to easily issue tokens without relying on large amounts of capital or complex market operations.
- **Ensuring Fair Launches, Avoiding Market Manipulation Risks**
  By utilizing a simulated virtual liquidity pool, the initial price and liquidity of the token are automatically adjusted according to market demand rather than being controlled by the issuer or large capital investors. As users buy tokens, the price gradually increases, boosting market activity. This ensures that all investors participate under fair market conditions, avoiding scenarios where issuers manipulate market prices or favor specific investors.
- **Automated Liquidity Migration, Enhancing Market Performance**
  During the early stages of token issuance, Pump.fun's virtual liquidity pool provides initial market depth for the token. As demand grows, liquidity is migrated to Raydium, creating a stable trading market. This helps attract more investors and users to participate.
- **Reducing Exit Risk, Enhancing Transparency and Security**
  Unlike the ”pump-and-dump” scenario in March within the Solana ecosystem, where memecoin participants directly transferred funds to the issuer's account for manual distribution and liquidity addition, leading to the issuer absconding with the funds, Pump.fun eliminates the manual steps with its automated liquidity pools and pricing mechanisms. This ensures that issuers cannot privately manipulate the market or misappropriate funds, greatly reducing the risk of exit scams.

3 Pump.fun Platform Performance Data

3.1 Issued Token Quantity and Active User Numbers Reach New Heights

As of February 5, 2025, the Pump.fun platform has collected over 2.76 million SOL in transaction fees, reflecting its massive trading volume and market influence. Additionally, the cumulative number of tokens issued has reached 7.5 million, with over 98,000 tokens successfully launched on Raydium. As for Base, the second-largest ecosystem in terms of issued and tradable memecoins, it issued 953,300 tokens in 2024, 7.86 times fewer than Pump.fun. According to DefiLlama data, Pump.fun holds the 9th position in the overall revenue rankings across all blockchains and protocols. These figures suggest that Pump.fun has experienced robust growth and has become one of the most active protocols in the cryptocurrency market[5].

Figure 4: Pump.fun Performance in Various Aspects[6]

Total Fees Collected by the Protocol (SOL)

2,767,299

Total Fees Collected by the Protocol (USDT)

535,748,855

Total Tokens Issued

7,502,978

Tokens Successfully Launched on Raydium

98,667

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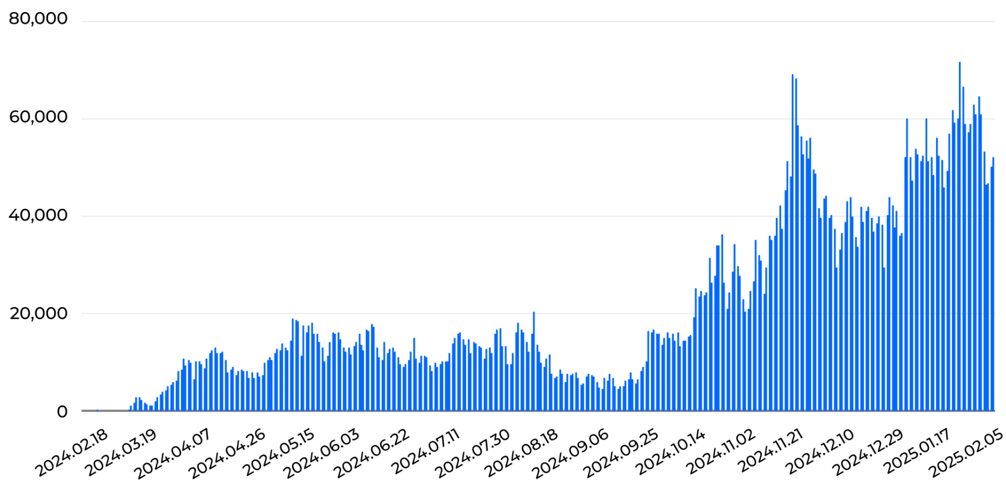
The number of issued tokens has repeatedly set new records, demonstrating significant cyclical fluctuations. In early March 2024, driven by the BOME and SLERF memecoin surges, token issuance increased rapidly. A decline followed this as the cryptocurrency market cooled down and the hype waned. However, with the market's recovery and the revival of the memecoin sector in October, the issuance number spiked again, reaching a peak of 71,733 tokens on January 13, 2025. This underscores the high correlation between token issuance and market sentiment or hot topics.

Figure 5: Daily Token Issuance on Pump.fun Continues to Break New Records[6]



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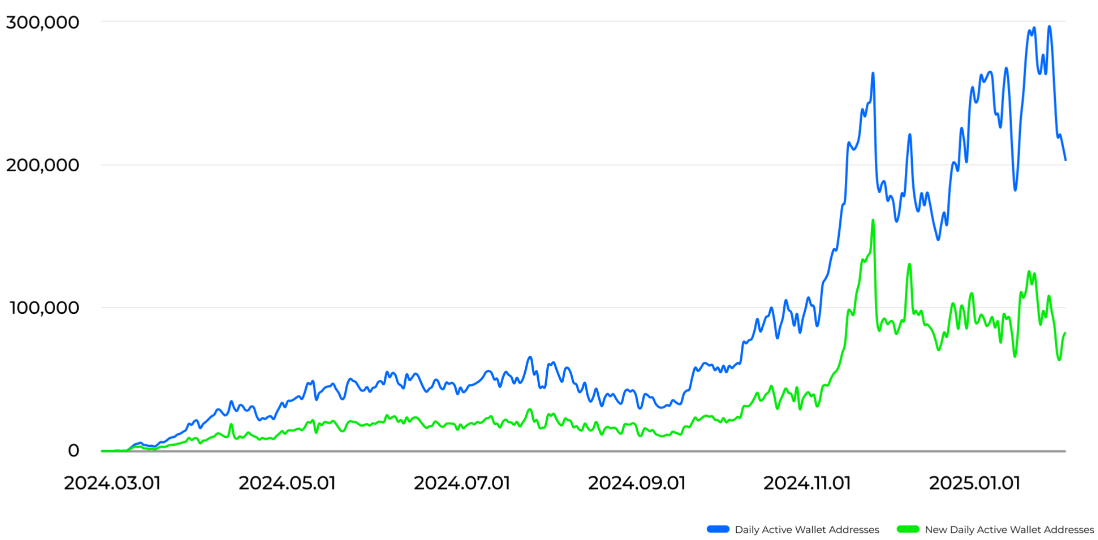
Meanwhile, the daily active wallet addresses on Pump.fun also experienced notable fluctuations, correlating strongly with changes in token issuance. In August 2024, newly active wallets surged, marking the platform's first peak. Although the user growth slowed from September to October, the platform showed high user retention, indicating strong stickiness. By January 2025, the platform's activity hit a new high, attracting even more new users.

Figure 6: Peak Daily Active Wallet Addresses on Pump.fun Exceeded 290,000[6]



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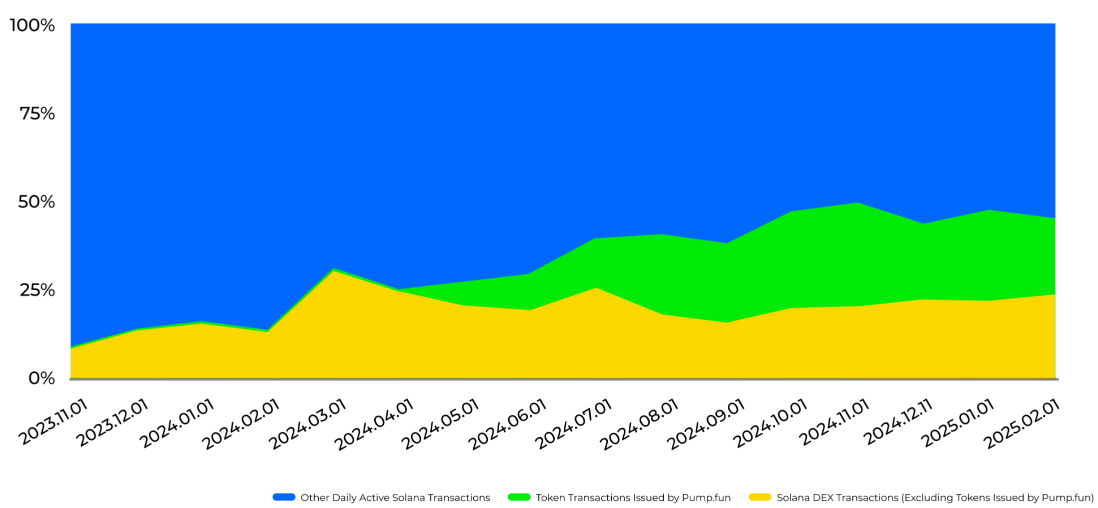
3.2 Significant Contribution to Solana's On-chain Activity

Pump.fun has gradually become a key contributor to Solana's on-chain activity, particularly in terms of transaction volume, with its impact being particularly notable in driving the rise of transactions on the network. The growth in transaction numbers has injected fresh momentum into Solana's overall transaction ecosystem.

The trend of increasing transaction numbers is visible. Starting from March 2024, Pump.fun significantly impacted Solana's on-chain activity. Before this period, the platform's transaction volume was nearly negligible compared to other Solana DEXs. However, from March 2024, Pump.fun's transaction numbers soared dramatically, rising from 1,675 transactions to 511 million transactions in January 2025, accounting for 54% of the total DEX transactions on Solana that month. Additionally, its share of non-vote transactions (transactions directly initiated by users, including transfers, smart contract executions, DeFi activities, and NFT transactions) on Solana's network continued to rise, reaching 25% by January 2025. This growth indicates not only the rising activity on Pump.fun but also its substantial contribution to the broader Solana transaction ecosystem.

Note: Voting transactions are those generated by validator nodes to ensure consensus on the state and sequence of blocks in the chain, while non-vote transactions refer to all user-initiated interactions with the blockchain.

Figure 7: Increasing Share of Pump.fun Token Issuance Transactions in Solana Network[7]



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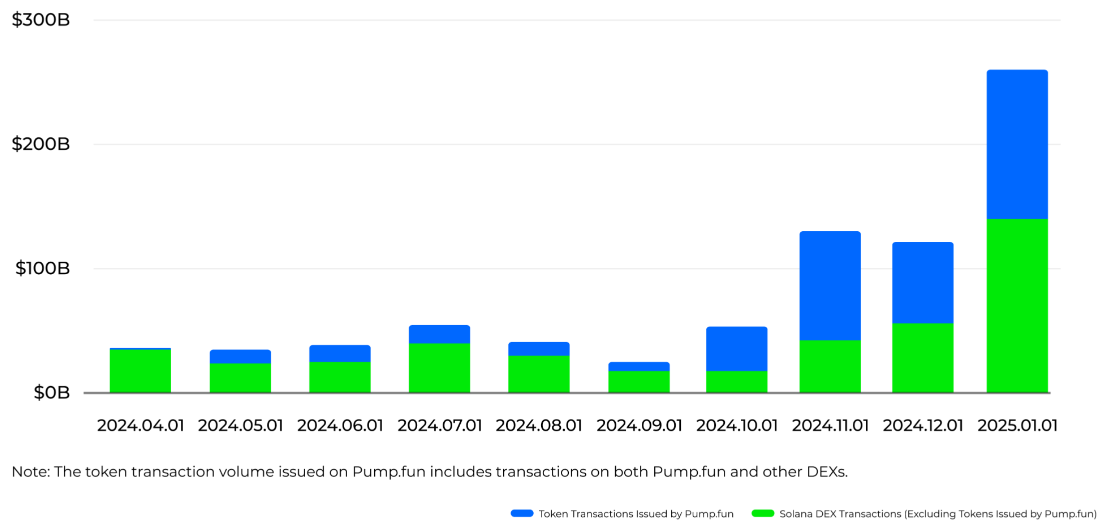
From the chart, it's clear that Pump.fun tokens have shown a strong late-stage advantage in Solana's DEX trading volume. Starting in May 2024, their trading volume began rising steadily, with a particularly strong performance in the year's second half. In January 2025, transactions for tokens issued by Pump.fun accounted for 46.10% of Solana DEX's total volume, reaching a monthly transaction value of $11.91 billion. This made Pump.fun a core driver of growth for the Solana DEX ecosystem, helping it surpass other blockchain ecosystems and secure the top position in the industry.

Figure 8: Pump.fun's Transaction Volume Share in Solana DEX Reaches 46.10% in January 2025[7]



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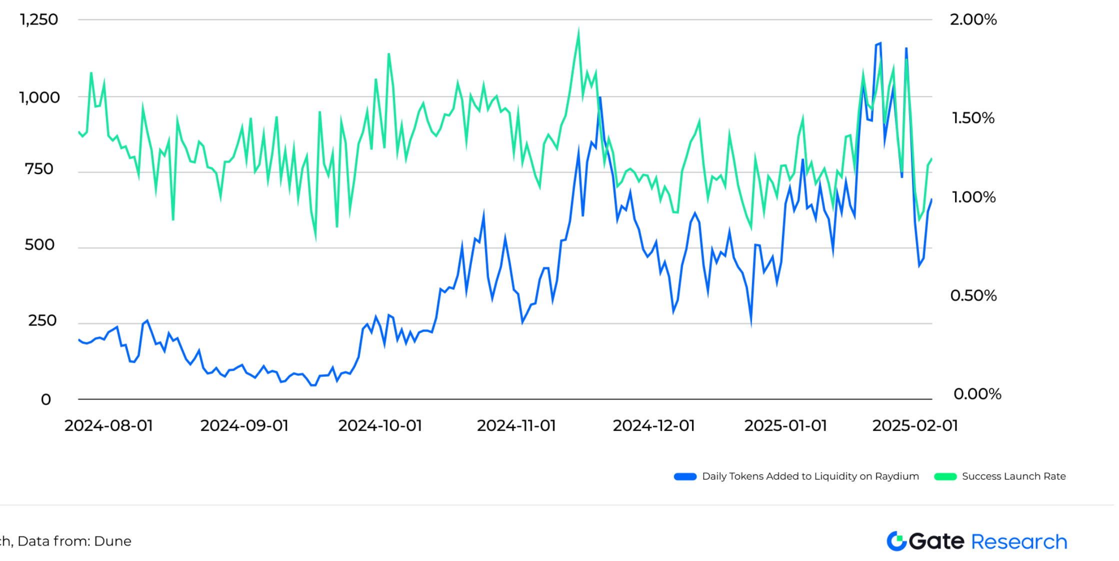
4 Token Lifecycle

4.1 Intense Competition with Low Success Rate

Successfully launching a memecoin on Pump.fun is only the first step. The real challenge is making the token's market capitalization reach $100,000. Since the platform's launch, only 1.35% of the tokens have successfully made it to the Raydium exchange. This statistic reflects how most memecoins are eliminated early on, with only a few making it to the next stage. The daily success rate has consistently remained low, typically between 1.0% and 2.0%.

Figure 9: Token Launch Success Rate Has Remained Low[6]



4.2 Wealth Effect Drives Market Frenzy

Tokens that successfully launch often attract immediate attention due to their significant wealth effect. For example, the price of Fartcoin increased by an astonishing 105,118 times from its initial launch price on Pump.fun, and saw a 6,307 times increase from its initial liquidity price on Raydium. Similarly, the price of WOULD surged by 51,781 times, and arc increased by 36,391 times, leading to an influx of speculators rushing into the market.

This enormous wealth effect not only stoked investors' enthusiasm but also reinforced the speculative atmosphere in the market. The speculative frenzy drove token prices up and further increased user participation.

Figure 10: Top 20 Tokens by Market Cap on Pump.fun Show Massive Gains (Price Snapshot on January 10, 2025)[8]

Token Name	Price (USD)	Market Cap (USD)	Value Increase (Compared to Pump.fun Initial Price)	Value Increase (Compared to Initial Liquidity Price on Raydium)
Fartcoin	0.6307068198	630,706,820	105,118	6,307
WOULD	0.3106855978	310,685,598	51,781	3,107
arc	0.2183460139	218,346,014	36,391	2,183
ACT	0.1921897599	192,189,760	32,032	1,922
Pnut	0.1715060323	171,506,032	28,584	1,715
GRIFFAIN	0.16002	160,020,000	26,670	1,600
GOAT	0.1250611681	125,061,168	20,844	1,251
jailstool	0.1176700879	117,670,088	19,612	1,177
VINE	0.1012116993	101,211,699	16,869	1,012
Elon4AfD	0.07305050702	73,050,507	12,175	731
FWOG	0.06668752015	66,687,520	11,115	667
MOODENG	0.06571472685	65,714,727	10,952	657
swarms	0.06511495294	65,114,953	10,852	651
Ban	0.0639717596	63,971,760	10,662	640
ZEREBRO	0.05341087089	53,410,871	8,902	534
SNAI	0.05237846482	52,378,465	8,730	524
GFM	0.04378384358	43,783,844	7,297	438
GRIFT	0.04300745849	43,007,458	7,168	430
UFD	0.04156263392	41,562,634	6,927	416
AVA	0.03934443619	39,344,436	6,557	393

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4.3 Extremely High Risk of Zero Value

Despite the ability of memecoins to rapidly attract large amounts of capital and generate significant wealth during the investment frenzy, their lifespans are typically very short. As market sentiment shifts quickly, once the hype surrounding a token fades, its value often crashes back to near zero.

For investors, memecoin investments can yield high returns in the short term, but the risks behind these investments cannot be ignored. A slight misstep can lead to substantial losses. Notably, 99.69% of the memecoins issued by Pump.fun ultimately fall back to their initial launch price, showcasing the speculative and volatile nature of the memecoin market.

Figure 11: 99.69% of Tokens Issued on Pump.fun Fall Back to Their Initial Launch Price[8]

Price Range (USD)	Quantity	Percentage
0.000001 - 0.00001	7,096,930	99.682%
0.00001 - 0.0001	20,744	0.2914%
0.0001 - 0.001	992	0.0139%
0.001 - 0.01	306	0.0043%
> 0.01	82	0.0012%

Selected Tokens: Issued on Pump.fun, and with individual transaction amounts exceeding 5 USD

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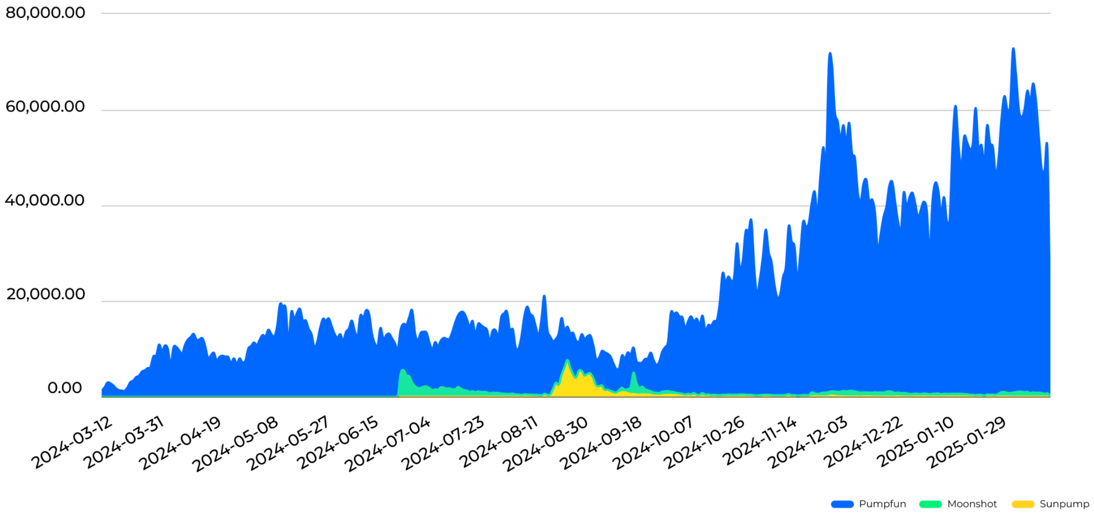
5 Competitive Landscape Analysis

With its early strategic positioning and innovative token launch mechanisms, Pump.fun has not only solidified its foothold in the memecoin space but has also attracted many users and capital. Motivated by its success, other blockchain projects have explored similar models to capitalize on the rapidly growing memecoin market. Among these, SunPump and Moonshot, based on the Tron and Solana blockchains, respectively, have quickly gained attention due to their differentiated positioning and innovative features, making them two of the most representative platforms in this space.

SunPump's early success can be attributed to the backing of well-known industry figures. The public support and multiple promotional efforts by Tron founder Justin Sun significantly boosted the platform's visibility. His social media presence and influence drove SunPump into the spotlight, resulting in a massive surge in token issuance during its initial launch phase, with daily token volumes reaching thousands. However, this external-driven hype faded as the market gradually became more rational. Currently, the token issuance volume has returned to a more stable range, fluctuating between 100 to 500 tokens per day, reflecting the normalization of the market.

In contrast, Moonshot has maintained a relatively steady token issuance, benefitting from its connection to DEXScreener, a platform with significant user traffic. This partnership has allowed Moonshot to quickly engage with users accustomed to trading on DEXScreener. Despite its steady growth, Moonshot faces challenges due to its position within the Solana ecosystem, which is already heavily dominated by Pump.fun. As a result, Moonshot's growth potential has been somewhat limited by Pump.fun's first-mover advantage and its vast user base.

Figure 12: Pump.fun Continues to Lead in Token Issuance Volume[9, 10]



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6 Future Trends

Platforms like Pump.fun and other memecoin token issuance platforms are currently experiencing rapid growth, and their future trends indicate the following key characteristics:

- **Intensified Ecosystem Competition**
  As market interest rises and new platforms emerge, competition in the memecoin space will intensify. This competition will drive platforms to continue investing in feature innovation, mechanism optimization, and enhancing user experience, to attract more users and increase user retention. Differentiated competitive strategies could also give rise to unique market models, further diversifying the ecosystem. This will likely lead to an increasingly competitive landscape where platforms constantly innovate to stay ahead.

- **Automation Tools Enhancing Efficiency**
  Automated trading tools, such as trading bots, are expected to become vital to the memecoin market. These tools not only enable quick responses and efficient execution, but they also help users swiftly capture trading opportunities related to trending tokens. Automation tools can quickly identify market trends and execute precise actions by monitoring and analyzing on-chain data in real-time, significantly improving transaction efficiency and success rates. This quick-reacting capability will support investors in competing for scarce market resources, boosting market activity and liquidity. As a result, automation tools will enhance market competitiveness and overall market fluidity.

– **Data Analytics Tools Driving Market Growth**
  The growing adoption of on-chain data analytics tools will provide investors with more accurate market insights and better decision-making support. Platforms such as GMGN, specializing in on-chain transaction data analysis, are expected to proliferate. These platforms provide real-time trade data, fund flow analysis, and other services that enhance market transparency, helping participants to identify market opportunities and spot rug better pulls. These tools will be crucial in promoting healthy market development by ensuring greater transparency and reducing the risks associated with malicious projects.

In the future, platforms like Pump.fun will need to stand out in the competitive landscape and explore new technologies and business models to better meet the demands of the market and the evolving industry. By doing so, they can become a driving force behind the continued growth of the memecoin ecosystem.

7 Conclusion

Pump.fun, as a memecoin token issuance platform, has pioneered a new path in the Web3 ecosystem with its innovative token issuance mechanisms. By combining the unique appeal of meme culture, Pump.fun has attracted widespread user attention and participation and has become an integral part of the Web3 space. Its fair launch model has introduced a new approach to the issuance of meme tokens, promoting the ideals of fairness and decentralization within the Web3 ecosystem. Looking ahead, this fair launch mechanism could become a standard for more projects, contributing to the healthy development of the entire ecosystem. By lowering entry barriers and fostering community interaction, Pump.fun demonstrates the vast potential of decentralization and meme culture in the world of digital assets.

Author: Evelyn

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