Bitcoin vs XRP: understanding two giants of the crypto world

Published 9 December 2024

Dovile Silenskyte
Director, Digital Assets Research

Key Takeaways

- Bitcoin and XRP each play vital roles in the cryptocurrency ecosystem.
- Bitcoin's appeal as a decentralised store of value continues to attract investors.
- XRP's utility in transforming cross-border payments positions it as a leader in blockchain-based finance.
- XRP's deflationary supply, institutional focus, and scalability ensure it will remain a crucial player in the evolving crypto space.

Back in 2009, bitcoin burst onto the scene, introduced by the mysterious Satoshi Nakamoto. Through its now-iconic whitepaper, bitcoin pioneered the idea of a decentralised digital currency operating on a secure and immutable blockchain.

Since then, bitcoin has cemented its status as the dominant cryptocurrency, and it continues to represent over 50%[1] of the total crypto market capitalisation. Nowadays, bitcoin is hailed as a 'store of value', often compared to digital gold, and institutions are increasingly incorporating it into their multi-asset portfolios to enhance their risk-return metrics.

XRP followed shortly after bitcoin, and it aimed to revolutionise cross-border payments with speed and efficiency. By way of example, Tranglo, a leading cross-border payment hub, has integrated Ripple's On-Demand Liquidity service that leverages XRP to facilitate instant cross-border transactions without any need for pre-funding accounts[2].

WisdomTree's digital asset taxonomy classifies both bitcoin and XRP as Layer-1 payments but, despite its utility, XRP's market capitalisation is significantly smaller than bitcoin's:

- Bitcoin: $1.9 trillion[3]
- XRP: $83 billion[4]

The stark market cap difference raises a question: could XRP ever catch up with bitcoin?

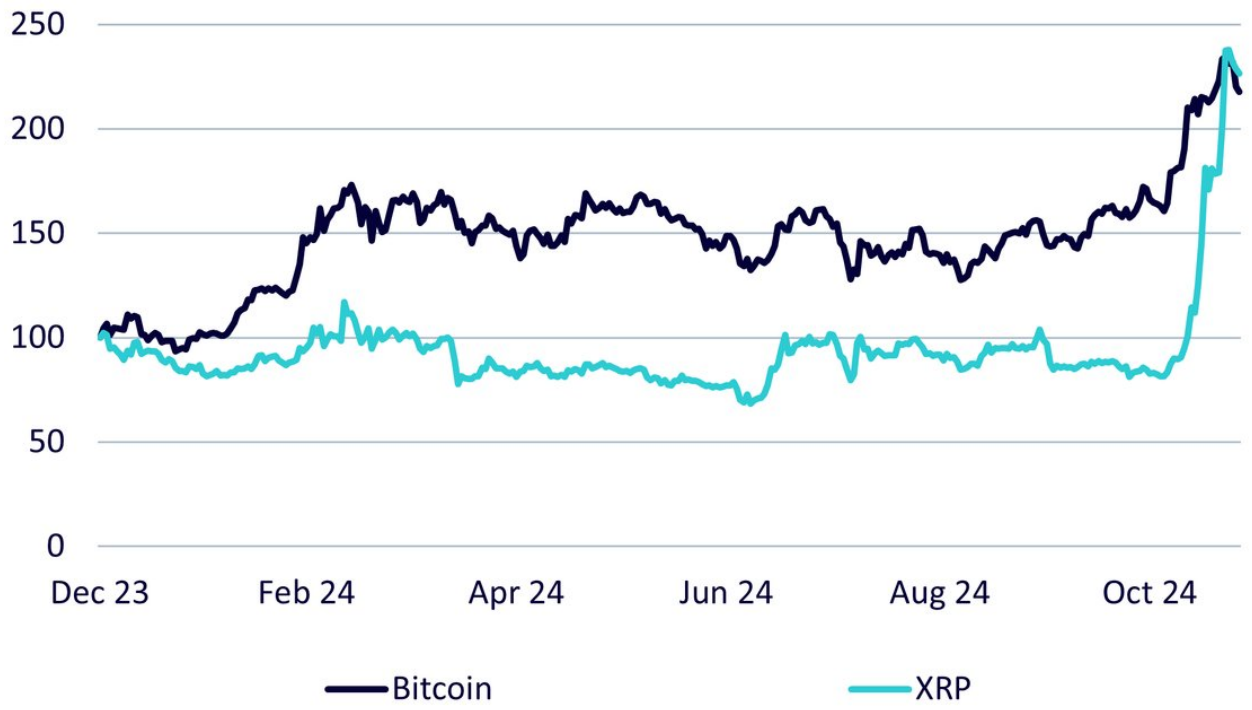
Market perception: store of value vs utility token

Bitcoin and XRP are perceived through vastly different lenses.

- **Bitcoin**: seen as 'digital gold', is valued for its decentralisation, capped supply of 21 million coins, and resilience against inflation. This narrative resonates strongly with investors, reinforcing its position.
- **XRP**: designed for institutional use and is primarily regarded as a utility token enabling cost-effective, efficient cross-border payments. Its strong ties to the financial sector highlight its use case in payment innovation.

The re-election of Donald Trump, known for his pro-crypto stance, has injected fresh optimism into the market, with expectations of favourable regulatory policies giving both bitcoin and XRP a price lift.

Figure 1: Bitcoin and XRP prices in USD



Source: GlassNode. 26 November 2024. Prices set to 100 on 31 December 2023. **You cannot invest directly in an index. Historical performance is not an indication of future performance and any investment may go down in value.**

Figure 1 clearly reflects the market's optimism, with bitcoin price reaching its all-time high of more than $99k in November and XRP climbing to the levels it was at back in 2021.

Limited supply dynamics

As shown in Figure 2, both bitcoin and XRP have limited supply, which contributes to their scarcity and value proposition. To clarify the terms used:

- **Circulating supply** is the number of coins currently circulating in the market and available for public trading.
- **Maximum supply** is the total number of coins programmed to exist, as determined by the underlying code of the cryptocurrency.
- **Total supply** is the maximum number of coins, adjusted for those that have been irreversibly removed from circulation (for example, through burning).

Figure 2: Limited supply

	Bitcoin	XRP
Circulating supply	19.8 million	57 billion
Maximum supply	21.0 million	100 billion
Total supply	21.0 million	<100 billion (just over 13m XRP burned)

Source: CoinGecko. 27 November 2024.

One of the primary distinctions between bitcoin and XRP lies in their total supply. While bitcoin's total supply remains static at 21 million coins, XRP's total supply is deflationary due to transaction fee burning.

Whenever a transaction occurs on the XRP Ledger, a small amount of XRP is permanently removed from circulation as a transaction fee. This burn mechanism ensures a gradual reduction in XRP's total supply over time. To date, just over 13 million of XRP have been burned, resulting in a total supply that is slightly under the original 100 billion XRP coins.

By contrast, bitcoin's total supply is fixed and does not decrease over time. While coins may be lost due to forgotten private keys or mishandling, this is not a deliberate feature of the system.

The deflationary nature of XRP's total supply sets it apart and adds a unique dimension to its long-term economic model. Conversely, bitcoin's capped and unchanging supply solidifies its position as a digital asset with absolute scarcity, akin to 'digital gold'.

Different user types

Bitcoin and XRP cater to distinct user groups, with bitcoin predominantly serving retail users and XRP designed for institutional use.

Bitcoin primarily appeals to retail users due to its accessibility and decentralised nature. Key aspects of bitcoin's retail use include:

- **Remittances**: bitcoin enables individuals to send money internationally at significantly lower fees compared to traditional remittance services. Its peer-to-peer nature eliminates the need for intermediaries, offering a faster and more cost-effective solution.
- **Financial inclusion**: in regions with limited access to traditional banking infrastructure, bitcoin serves as a decentralised and accessible gateway for individuals to participate in the global economy.

While bitcoin is increasingly attracting institutional interest, its retail adoption remains its cornerstone. This is driven by its widespread accessibility, its established reputation as the first cryptocurrency, and its large and active community.

XRP, by contrast, in designed with institutional users in mind, particularly in the realm of international finance and cross-border payments. Its primary focus is on providing fast, cost-effective, and reliable solutions for financial institutions.

- **Cross-border payments and liquidity management**: XRP acts as a bridge currency, enabling financial institutions to settle international transactions quickly and at low cost. This eliminates the need for pre-funded nostro accounts, significantly reducing liquidity costs.
- **Proven reliability**: since its inception, XRP has processed over 3.3 billion transactions, representing more than $1 trillion in value without any failures or security breaches. This track record reinforces its position as a robust solution for banks and financial institutions.

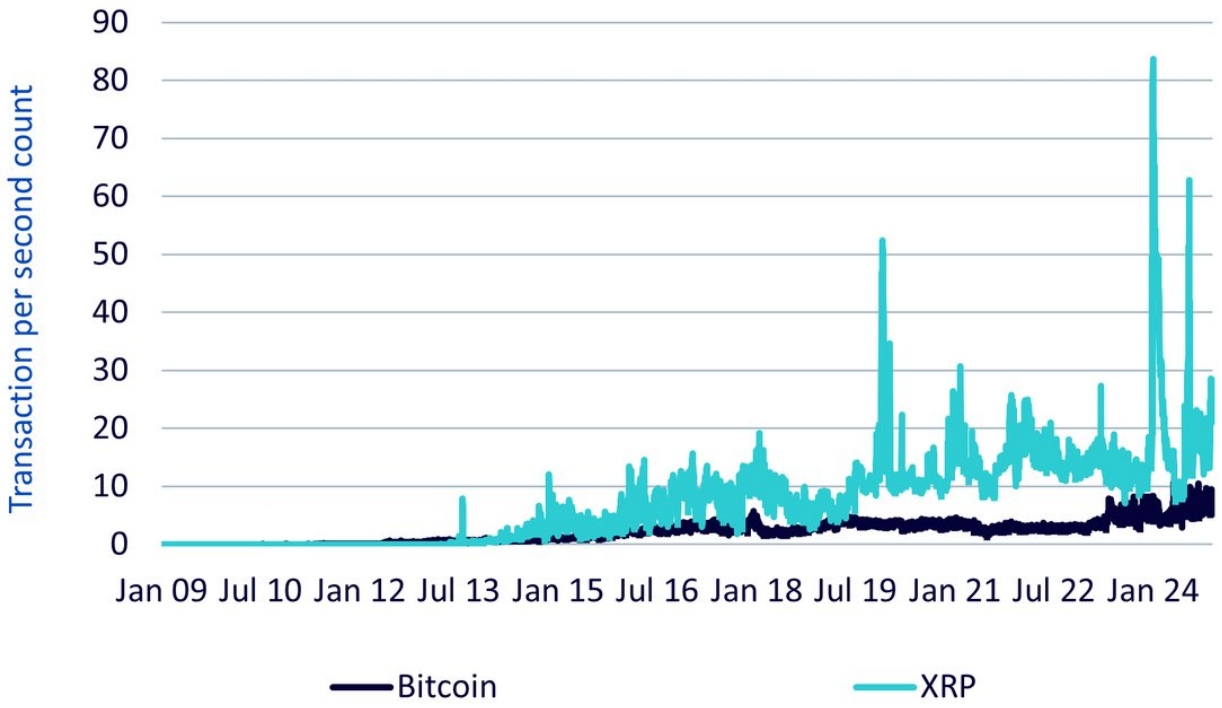
Through its scalability, speed, and institutional-grade reliability, XRP provides a tailored solution for optimising cross-border payment systems, making it a key asset for the financial sector.

Transaction speed and throughput

When it comes to transaction speed, XRP outpaces bitcoin by a wide margin:

- XRP handles up to 1,500 transactions per second (TPS), settling each in 3-5 seconds.
- Bitcoin processes approximately 7 TPS, with settlement times averaging 10 minutes per block (and potentially longer during congestion).

Figure 3: Transaction per second count



Source: CoinMetrics. 24 November 2024. **Historical performance is not an indication of future performance and any investment may go down in value.**

XRP's efficiency makes it a strong contender for real-time payments, while bitcoin's slower pace emphasises security and decentralisation.

The road ahead: can XRP catch up?

For XRP to rival bitcoin's $1.9 trillion market cap, transformative shifts would be essential:

- **Mass adoption**: XRP must see a surge in usage for payments, remittances, and other applications.
- **Regulatory clarity**: favourable regulations could attract more institutional investment.
- **Ecosystem expansion**: new partnerships and innovations extending XRP's utility beyond payments.
- **Market sentiment**: a broader pivot towards altcoins over bitcoin.

To match bitcoin's market capitalisation, XRP's price would need to increase more than 20x from its current levels. This monumental challenge underscores bitcoin's entrenched dominance and unique value.

Conclusion

Bitcoin and XRP each play vital roles in the cryptocurrency ecosystem. Bitcoin's appeal as a decentralised store of value continues to attract investors, while XRP's utility in transforming cross-border payments positions it as a leader in blockchain-based finance.

Though surpassing bitcoin's market cap remains an ambitious goal, XRP's deflationary supply, institutional focus, and scalability mean it will likely remain a crucial player in the evolving crypto space.

WisdomTree: an established ETP provider to access cryptocurrencies

WisdomTree offers a curated range of nine physical crypto exchange-traded products (ETPs) that have institutional-grade structure and provide spot price exposure to single coins and diversified crypto baskets. Please see the WisdomTree Crypto ETP centre for further detail.

[1] Coin360. 27 November 2024.
[2] Please see https://www.tranglo.com/odl/ for further detail.
[3] Messari. 27 November 2024.
[4] Messari. 27 November 2024.

Important Risks Related to this Article

Important Information

Marketing communications issued in the European Economic Area ("EEA"): This document has been issued and approved by WisdomTree Ireland Limited, which is authorised and regulated by the Central Bank of Ireland.

Marketing communications issued in jurisdictions outside of the EEA: This document has been issued and approved by WisdomTree UK Limited, which is authorised and regulated by the United Kingdom Financial Conduct Authority.

WisdomTree Ireland Limited and WisdomTree UK Limited are each referred to as "WisdomTree" (as applicable). Our Conflicts of Interest Policy and Inventory are available on request.

For professional clients only. The information contained in this document is for your general information only and is neither an offer for sale nor a solicitation of an offer to buy securities or shares. This document should not be used as the basis for any investment decision. Investments may go up or down in value and you may lose some or all of the amount invested. Past performance is not necessarily a guide to future performance. Any decision to invest should be based on the information contained in the appropriate prospectus and affer seeking independent investment, tax and legal advice.

The application of regulations and tax laws can offen lead to a number of different interpretations. Any views or opinions expressed in this communication represent the views of WisdomTree and should not be construed as regulatory, tax or legal advice. WisdomTree makes no warranty or representation as to the accuracy of any of the views or opinions expressed in this communication. Any decision to invest should be based on the information contained in the appropriate prospectus and affer seeking independent investment, tax and legal advice.

This document is not, and under no circumstances is to be construed as, an advertisement or any other step in furtherance of a public offering of shares or securities in the United States or any province or territory thereof. Neither this document nor any copy hereof should be taken, transmitted or distributed (directly or indirectly) into the United States.

Although WisdomTree endeavours to ensure the accuracy of the content in this document, WisdomTree does not warrant or guarantee its accuracy or correctness. Where WisdomTree has expressed its own opinions related to product or market activity, these views may change. Neither WisdomTree, nor any affiliate, nor any of their respective officers, directors, partners, or employees accepts any liability whatsoever for any direct or consequential loss arising from any use of this document or its contents.