

Bonds in Crypto and Blockchain

Attracting Investors from the Digital Age amid the Resurgence of Mercantilism Policies

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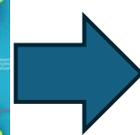
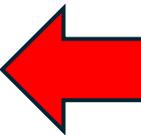
We stand at a significant turning point in history,
as we need to deal with the following paradox:

The Paradox

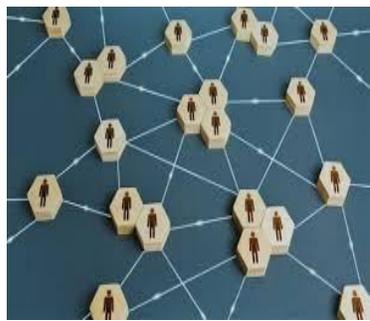
- The governments of the world may revive mercantilist economic policies that prioritize **interventionism and protectionism**, a trend exemplified by leaders like **Donald Trump**
- **4th industrial revolution** over recent decades has fostered **global interconnectivity**, enhancing **transparency, security, and accessibility** through **decentralized networks**



interventionism



decentralization



How can we navigate a decentralized world
in the face of increasing interventionism?

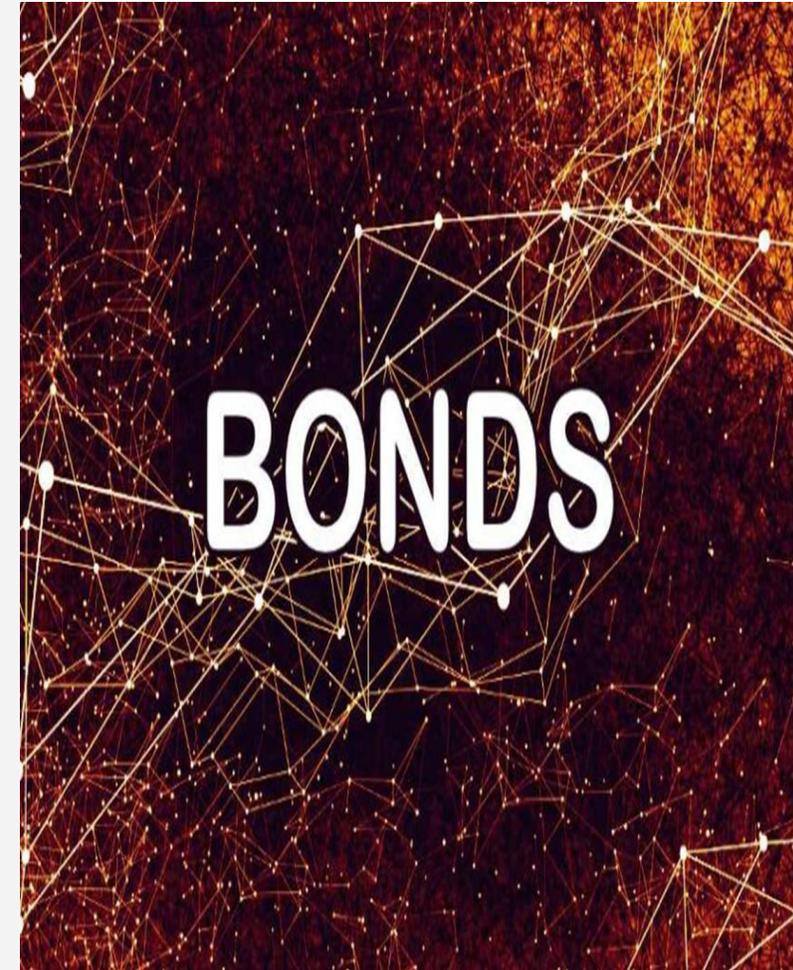
Integrating Global Bond Markets within Decentralized Blockchain Technology

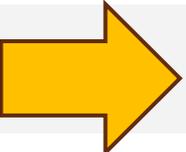
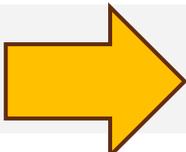
Traditional Bond market estimated \$133 trillion in 2023 with daily transaction volumes averaging \$1.5 to \$2 trillion **it's a huge market affecting every country and entity in the world**

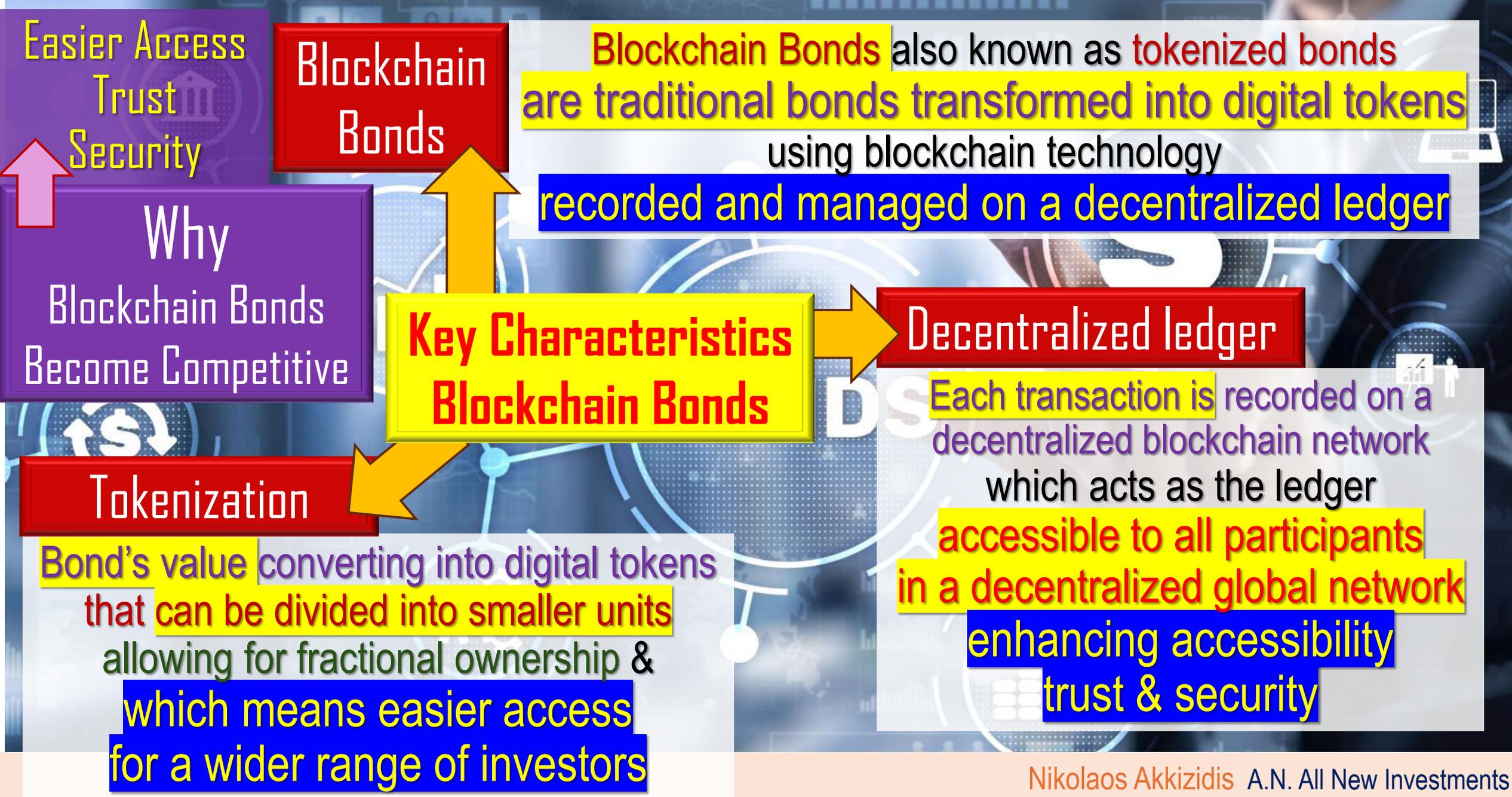
- Governments' intervention and protectionism might lead to **inflation and recession**, which could make **traditional bonds riskier and less valuable**

But, **traditional bonds can become less risky through decentralization** on the **blockchain bond market**

- Blockchain bonds are traditional bonds, **tradable in a decentralized network** with minimal government intervention, potentially making them **more competitive and more attractive to people & entities**



Traditional Bonds  Blockchain Bonds **in a Decentralized Network**  Competitive



Why Blockchain Bonds Become Competitive

Transparency, Efficiency
Minimum Human Error & Fraud

Key Characteristics Blockchain Bonds

Blockchain Platforms

Smart Contracts

Blockchain Platforms provide critical infrastructure for issuing, trading, and managing blockchain bonds

enhancing security
transparency
efficiency
in bond transactions

blockchain platforms like Ethereum provide robust **smart contract** capabilities

Smart contracts are self-executing contracts with the terms of the agreement directly written into code

They **automate many aspects of bond management**, including interest payments and principal repayment, **based on pre-defined rules** to minimize human error and fraud



Why Blockchain Bonds Become Competitive

In terms of the currencies used there are generally two main categories for blockchain bonds

1. Fiat Currency Blockchain Bonds

are issued on a blockchain platforms
denominated
in traditional **fiat currencies** like

USD, EUR, GBP, etc.

carrying stability

making Blockchain Bonds
more pleasant to
traditional bond investors

Blockchain Bonds carrying stability
pleasant to traditional bond investors

2. Cryptocurrency Blockchain Bonds

are issued on blockchain platforms
denominated in **cryptocurrencies** such as
Bitcoin (BTC), Ethereum (ETH), or other altcoins

provide traditional investors
a bridge to the crypto world

and vice versa,

allowing cryptocurrency investors
to engage with

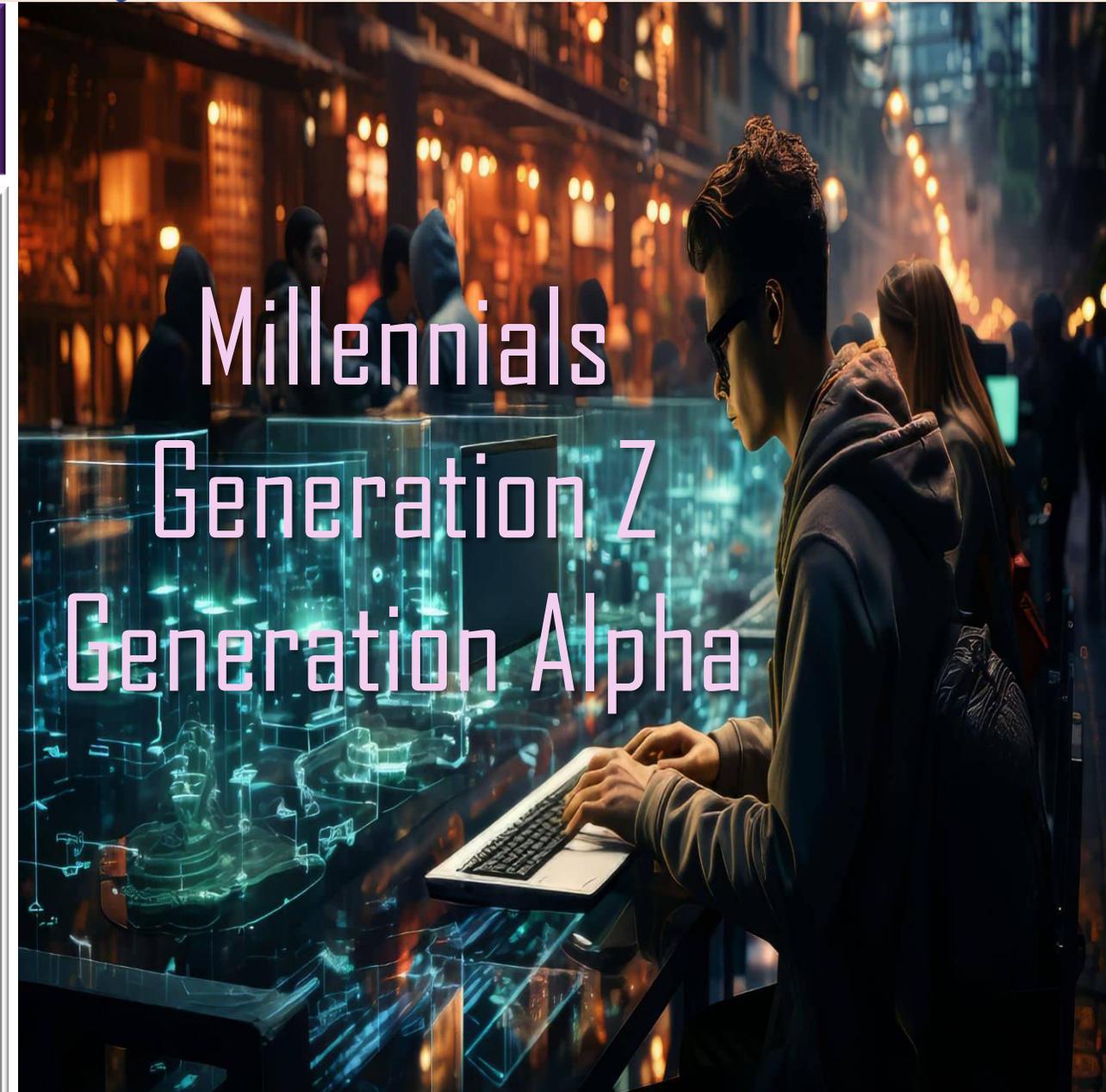
Traditional Financial Markets and Regulations

traditional investors attracted by crypto world
cryptocurrency investors engaged to TFM R

Why Blockchain Bonds Become Competitive

Blockchain Bond Market attracts
the generation that
grew up in the "digital age"

Millennials - Generation Z - Generation Alpha
Tech-savvy investors
looking for
secure, fast,
decentralized investments
to deal effectively with all kinds of
national and global policies
including interventionist
economic policies



Millennials
Generation Z
Generation Alpha

Why Blockchain Bonds Become Competitive

Expanding
Investment Choices

Blockchain bonds introduce a hybrid asset class that blends traditional financial elements with digital innovations, broadening the spectrum of investment choices

Diversify
Investments
Across Global Markets

These bonds are accessible on a global scale, diversifying investments across different economic regions and reducing geographical risk

Widening
Participation

The tokenization of bonds allows for fractional ownership, enabling investors of all scales to participate and diversify with smaller capital outlays

Blockchain Bond Markets enhance Diversification & Opportunities

Blockchain Bond Markets Enhance Risks Management and Efficiency

Why Blockchain Bonds Become Competitive

Blockchain's immutable **ledger ensures all transactions are transparent** and easily auditable, **reducing fraud and enhancing security**

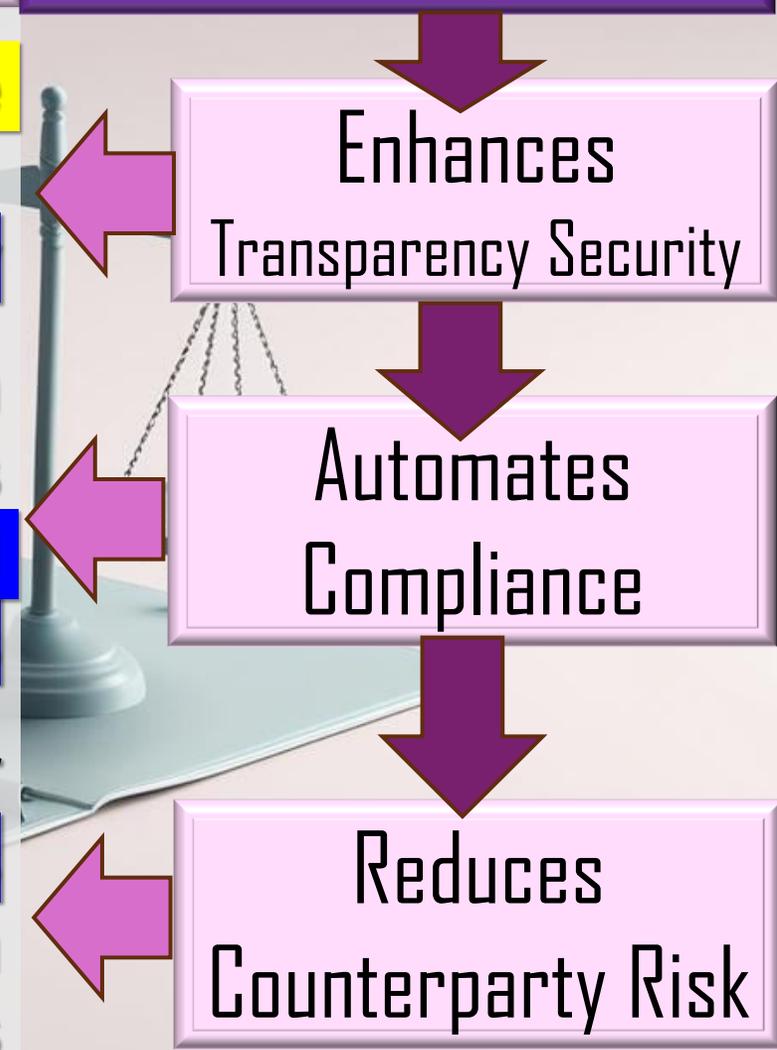
Smart contracts automate and enforce compliance with legal and regulatory standards **reducing the risk of non-compliance and associated penalties**

The decentralized nature of blockchain eliminates or **minimizes reliance on intermediaries** **reducing counterparty risks** typically associated with traditional bonds

Enhances
Transparency Security

Automates
Compliance

Reduces
Counterparty Risk



Why Blockchain Bonds Become Competitive

Blockchain Bonds

The Game-Changer for Emerging Markets

Blockchain bonds can be **The Game-Changer** as they provide an **efficient way** to invest in **Emerging Markets**

Blockchain Markets:

- simplifying cross-border transactions
- allowing smaller investment increments
- increases market access and liquidity

opening emerging markets to international investors more seamlessly

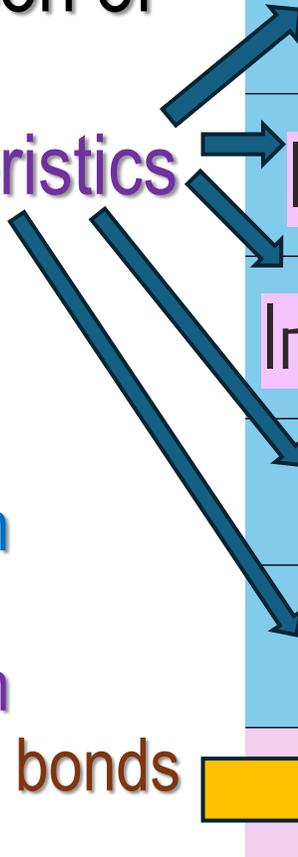


Why Blockchain Bonds Become Competitive

COMPARE Blockchain Bonds with Traditional Bonds

By making a comparison of **Key Characteristics** we observe that **Blockchain bonds can outperform Traditional bonds**

Characteristics	Blockchain bonds	Traditional bonds
Minimum investment threshold	Low (varies, but often \$1,000 or less)	Typically high (e.g., \$100,000)
Investment channels	Online marketplaces, blockchain platforms , and digital exchanges	Primarily through financial institutions brokerages, or investment banks
Investors Accessibility	Could be accessible to retail investors including smaller investors	Limited to institutional investors and high-net-worth individuals
Geographic spread	Global access , with potential for 24/7 trading	Mainly limited to local markets with some international access
Investor suitability	Open to a broader range of investors including non-accredited investors	Often restricted to accredited investors or institutional investors
Market size	Currently small (\$1.6 billion) but growing rapidly	Large well-established (trillions of dollars)



Why Blockchain Bonds Become Competitive

COMPARE Blockchain Bonds with Traditional Bonds

In a more detailed analysis indeed Blockchain bonds are more competitive than Traditional bonds in terms of

Attribute	Cryptocurrency Blockchain Bonds	Fiat Currency Blockchain Bonds	Traditional Bonds
Key Features	Smart contracts, decentralization	Tokenization, smart contracts	Debt instruments, fixed income
➔ Settlement Time	Seconds to minutes	Seconds to minutes	1 to 3 days
➔ Transaction Costs	Generally lower	Reduced compared to traditional	Higher due to intermediaries
➔ Transparency	High - all transactions are recorded	High - enhanced by blockchain	Lower - less visibility
Security	High, secured by blockchain	Very high, leverages blockchain security	High, regulated environment
➔ Global Accessibility	Global accessibility	Broader than traditional due to online platforms	Limited to accredited investors
Regulation	Emerging and varied by region	Regulated similarly to traditional bonds	Highly regulated
Liquidity	Less liquid unless widely adopted	Improving as market adapts	High and stable
➔ Investor Accessibility	Global via blockchain platforms	Accessible through traditional and crypto platforms	Primarily institutional investors

Why Blockchain Bonds
Become Competitive

COMPARE Blockchain Bonds with Traditional Bonds

Attribute	Cryptocurrency Blockchain Bonds	Fiat Currency Blockchain Bonds	Traditional Bonds
Issuer	Varies, often tech firms	Financial institutions, governments	Governments, corporations
Date Issued	Real-time on blockchain	Scheduled, similar to traditional bonds	Scheduled public issuance
Bond Type	Digital/Tokenized	Digital/Tokenized Fiat	Government, Corporate, Municipal
Value	Can vary, asset or crypto-linked	Set in fiat currency	Set in fiat currency
Country of Issuer	Decentralized or issuer's base	Issuer's country	Issuer's country
Currency	Cryptocurrency	Fiat currency	Fiat currency
Issuer Rating	Rarely rated	Commonly rated	Often rated
Amount investing ←	Can be fractionalized	Fixed, similar to traditional	Large, predetermined amounts
Settlement Date	Immediate or near real-time	Near instant with blockchain	T+2 or T+3 days
Maturity Date	Varies, often programmable	Fixed, known at issuance	Fixed, known in advance
Coupon	Variable, can be linked to crypto market	Fixed, similar to traditional bonds	Fixed, known at issuance
Coupon Payments ←	Automated via smart contracts	Automated via smart contracts	Manual or semi-automated
Re-offer Price	Market-driven, can be volatile	Set at issuance, less volatile	Set at issuance
Re-offer Yield	Potentially higher due to risk	Comparable to traditional bonds	Based on market conditions
Denomination ←	Smaller, fractional possible	Flexible, can be fractional	Fixed denominations
ISIN	Blockchain-specific, no standard	Blockchain-specific but standardized	Standardized global identifiers
Lead Managers	Managed by blockchain tech firms	Traditional financial institutions using blockchain	Banks, financial institutions

Why Blockchain Bonds Become Competitive

Cryptocurrency Blockchain Bond faces Challenges

Attribute	Cryptocurrency Blockchain Bonds	Fiat Currency Blockchain Bonds	Traditional Bonds
Overview	Innovative, expanding market access	Modernizing traditional investments	Traditional form of investment
Success Factors	Technology adoption, market growth	Stability with modern tech	Market stability, issuer credibility
Impact	Potential to reshape markets	Bringing efficiency to traditional markets	Core of global finance
Regulatory Uncertainty	High, depends on jurisdiction	Moderate, clearer than pure crypto bonds	Low, well-understood regulations
Market Volatility	High, crypto market related	Low, tied to fiat stability	Low, market stability
Technological Complexities	High, requires blockchain understanding	Moderate, simpler than pure crypto tech	Low, established technologies
Investor Base	Crypto enthusiasts, tech-savvy investors	Traditional and new investors	Institutional, accredited investors
24/7 Trading Potential	Yes, operates 24/7	Yes, if traded on crypto platforms	No, limited to market hours

Why Blockchain Bonds Become Competitive

Blockchain bonds Face Effectively Protectionist Policies

Blockchain bonds are a solid strategy against the uncertainties brought on by protectionist policies

Their decentralized nature means they're not as affected by any single country's economic decisions

This makes them a stable option to help keep your investments safe when things get rocky.



This is why Blockchain Market Dynamics expand across the globe



Blockchain Market Dynamics

In recent years, financial institutions, corporations and governments such as:

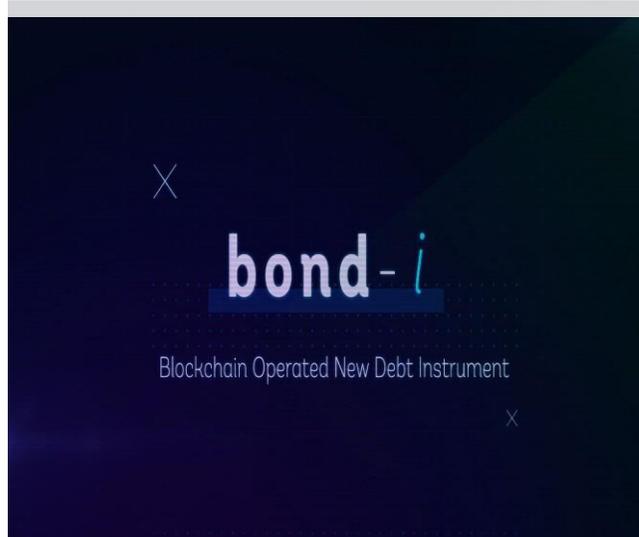
- The World Bank
- European Investment Bank (EIB)
- Santander
- Societe Generale
- HSBC
- The El Salvador Government and many others

have issued
multiple blockchain-based bonds



Blockchain Market Dynamics

World Bank, in 2018, launched the first Blockchain bond **Bond-i**



World Bank bond-i

Attribute	World Bank – 'bond-i' (2018)	Société Générale (2019 & 2020)	European Investment Bank (2021–2023)	Government Issuances – Hong Kong (2023)	Corporate Bonds – Siemens AG (2023)	El Salvador – 'Volcano Bond'
Issuer	World Bank	Société Générale	European Investment Bank	Hong Kong Government	Siemens AG	Government of El Salvador
Date Issued	Aug-18	April 2019 & May 2020	Apr-21	Feb-23	Early 2023	Expected Q1 2024
Bond Type	Blockchain bond	Security token (DLT)	Digital bond	Tokenized green bond	Digital bond	Blockchain bond
Value	A\$110 million	€140 million total	€100 million	HK\$800 million	€360 million	\$1 billion
Country of Issuer	International	France	EU	Hong Kong	Germany	El Salvador
Currency	AUD	EUR	EUR	HKD	EUR	USD
Issuer Rating	High	AAA	High	High	High	Not specified
Amount	A\$110 million	€140 million	€100 million	HK\$800 million	€360 million	\$1 billion
Settlement Date	Immediate	Immediate	Immediate	Immediate	Immediate	Immediate
Maturity Date	2 years	Varies	2 years	1 year	1 year & unspecified	10 years
Coupon	2.20%	Fixed	Fixed	4.05%	Fixed	6.50%
Coupon Payments	Automated via smart contracts	Automated via smart contracts	Automated via smart contracts	Automated via smart contracts	Automated via smart contracts	Automated via smart contracts
Denomination	Varies	Varies	Varies	Varies	Varies	Varies
Lead Managers	Commonwealth Bank of Australia	Société Générale, Banque de France	Goldman Sachs, Santander, SocGen	Goldman Sachs	In-house & various fintechs	To be determined

Blockchain Market Dynamics

(EIB) European Investment Bank
Société Générale

Siemens AG
have also piloted or issued bonds on blockchain platforms

European Investment Bank - Société Générale - Siemens

Attribute	World Bank 'bond-i' (2018)	Société Générale (2019 & 2020)	European Investment Bank (2021–2023)	Government Issuances Hong Kong (2023)	Corporate Bonds Siemens AG (2023)	El Salvador 'Volcano Bond'
Key Features	First fully managed blockchain bond	Incorporation of CBDC for settlements	Multi-dealer digital issuance on public blockchain	First tokenized government bond	Corporate adoption of blockchain for bonds	First sovereign bond linked to cryptocurrency
Settlement Time	Immediate	Immediate	Immediate	Immediate	Immediate	Immediate
Transaction Costs	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Transparency	High - on blockchain	High - on blockchain	High - on blockchain	High - on blockchain	High - on blockchain	High - on blockchain
Security	High	High	High	High	High	High
Accessibility	Global	European investors	Global	Global	Global	Global
Regulation	High regulatory compliance	Strict EU regulations	EU regulations	High regulatory compliance	Strict German regulations	Emerging
Liquidity	Limited secondary market	Emerging	Moderate	Limited	Emerging	Emerging
Investor Accessibility	Global financial institutions	Financial institutions	Global financial institutions	Global financial institutions	Institutional and tech-savvy investors	Global financial institutions

Blockchain Market Dynamics

Governments are also testing the waters

Hong Kong issued a tokenized green bond in 2023

El Salvador is set to issue the 'Volcano Bond' a \$1 billion bitcoin-backed bond on a blockchain platform

Hong Kong - El Salvador

Attribute	World Bank – 'bond-i' (2018)	Société Générale (2019 & 2020)	European Investment Bank (2021–2023)	Government Issuances – Hong Kong (2023)	Corporate Bonds – Siemens AG (2023)	El Salvador – 'Volcano Bond'
Overview	Pioneering blockchain in sovereign bonds	Advanced DLT use in European markets	Leadership in digital bond issuance	Innovative public sector investment	Corporate leadership in digital bonds	Pioneering in national cryptocurrency investment
Success Factors	Innovation in bond issuance	Integration of DLT with central banking	Market innovation, transparency	Environmental impact, transparency	Efficiency and market adaptation	Innovation in financing and cryptocurrency use
Impact	Demonstrated successful issuance and management	Pioneering CBDC integration for settlements	Impact on EU bond market digitization	Demonstrated T+1 settlement	Reduced settlement risk, faster issuance	Potential to reshape national financing
Regulatory Uncertainty	Low - World Bank backed	Moderate	Moderate	Low	Low	High
Market Volatility	Low	Moderate	Low	Low	Low	High
Technological Complexities	Moderate	High	High	Moderate	High	High
Investor Base	Institutional investors	Institutional, tech-savvy investors	Institutional investors	Institutional and retail investors	Institutional investors	Global, varied

A New Market Is Born

Seize the Right Economic Moment to engage

Be Early Adopter to Benefit

Early adoption of blockchain bonds provides you with significant advantages—higher potential returns and lower barriers to entry **before these bonds become a mainstream asset.**

Respond to Technological Shifts

By investing in blockchain technology now, you **position yourselves at the forefront of blockchain revolution** that promises more efficient, secure, and transparent financial processes.

Navigating Regulatory Changes

Timely investments in blockchain bonds, just as regulations become favorable, can **set the stage for substantial gains as the market widens and matures**

A New Market Is Born

Blockchain bonds are like Smart Homes

Traditional Bond Is Like A Traditional Home



Traditional Bonds are like Traditional Homes, which have served their purpose well over the years but rely on traditional methods of operation and management

Blockchain Bond Is Like A Smart Home



Blockchain Bonds on the other hand, are like Smart Homes equipped with the latest technology to automate and optimize various functions

A New Market Is Born



in the next few years
blockchain bonds
will move from the pilot
phase to a growth phase
possibly hitting mainstream
acceptance by the late 2020s
evolving into
a core component
of global finance

In conclusion, consider this:

We have entered a new era

Governments like the US gov adopt mercantilist policies increasing protectionism and interventionism therefore...market disruption and fluctuations are highly possible

Decentralizing traditional bonds within blockchain platforms becomes an efficient way

to face current and future disruptions and fluctuations

Will we take advantage of the new blockchain bond market?



This answer is
It's our choice
it's our future



Nikolaos Akkizidis
Thank you

Limassol
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Join the conversation share your perspectives on the future of finance

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