Cryptic Regulation of Crypto-Tokens **New York Fed Conference on FinTech September 2023**

Joshua Gans, University of Toronto & NBER

Could anyone have predicted the need for regulation?



















BITFINEX







The US stands, at the moment, as the place in the world where it is most difficult (possibly impossible) to start a crypto-token business.

Almost unprecedented in history (except maybe stem cells).

The US stands, at the moment, as the place in the world where it is most difficult (possibly impossible) to start a crypto-token business.

Almost unprecedented in history (except maybe stem cells).

Scientific and technical expertise concentrated in US.

The US stands, at the moment, as the place in the world where it is most difficult (possibly impossible) to start a crypto-token business.



What is the market failure (if any)?



What is the market failure (if any)?









What policy instruments are available?





What policy instruments are available?







What policy instruments are available?



Can policy intervention improve welfare?





Having a good regulatory process allows us to:





Having a good regulatory process allows us to:



Having a good regulatory process allows us to:

1. Not make things worse





Having a good regulatory process allows us to:

- 1. Not make things worse
- 2. Provide certainty for decision-makers





Having a good regulatory process allows us to:

- 1. Not make things worse
- 2. Provide certainty for decision-makers
- 3. Reduce the costs of regulation by encouraging good behaviour





associate rights with their holder.



Crypto-tokens are digital assets that are rival in nature. This makes it possible to

- Crypto-tokens are digital assets that are **rival** in nature. This makes it possible to associate rights with their holder.
- Cryptocurrencies are a subset of crypto-tokens that grant a single right: the right to transfer ownership to another agent.



- associate rights with their holder.
- right to transfer ownership to another agent.
- Stablecoins are a subset of cryptocurrencies that are pegged to another



• Crypto-tokens are digital assets that are **rival** in nature. This makes it possible to

• Cryptocurrencies are a subset of crypto-tokens that grant a single right: the

currency — they can be fiat collateralised, crypto collateralised or algorithmic.

- Crypto-tokens are digital assets that are **rival** in nature. This makes it possible to associate rights with their holder.
- Cryptocurrencies are a subset of crypto-tokens that grant a single right: the right to transfer ownership to another agent.
- Stablecoins are a subset of cryptocurrencies that are pegged to another currency — they can be fiat collateralised, crypto collateralised or algorithmic.
- Crypto-tokens can have rights other than transferability, including voting rights (such as DAOs)



- Crypto-tokens are digital assets that are **rival** in nature. This makes it possible to associate rights with their holder.
- Cryptocurrencies are a subset of crypto-tokens that grant a single right: the right to transfer ownership to another agent.
- Stablecoins are a subset of cryptocurrencies that are pegged to another currency — they can be fiat collateralised, crypto collateralised or algorithmic.
- Crypto-tokens can have rights other than transferability, including voting rights (such as DAOs)
- Some crypto-tokens have rights that are not equivalent across tokens (e.g., NFTs)





- Crypto-tokens are digital assets that are **rival** in nature. This makes it possible to associate rights with their holder.
- Cryptocurrencies are a subset of crypto-tokens that grant a single right: the right to transfer ownership to another agent.
- Stablecoins are a subset of cryptocurrencies that are pegged to another currency — they can be fiat collateralised, crypto collateralised or algorithmic.
- Crypto-tokens can have rights other than transferability, including voting rights (such as DAOs)
- Some crypto-tokens have rights that are not equivalent across tokens (e.g., NFTs)
- Crypto-tokens can be recorded in a decentralised manner on blockchains.





"Although the underlying technologies are a clever solution for the problem of how to execute transactions without a trusted authority, crypto assets currently do not offer widespread economic benefits. They are largely speculative investment vehicles and are not an effective alternative to fiat currency. Also, they are too risky at present to function as payment instruments or to expand financial inclusion." 2023 Economic Report of the President

Value of applications on blockchains

- Value of applications on blockchains
 - Security

- Value of applications on blockchains
 - Security
 - Interoperability

- Value of applications on blockchains
 - Security
 - Interoperability
 - Incentives

What market failures may arise?
• Payment efficiency

- Payment efficiency
 - Energy consumption

- Payment efficiency
 - Energy consumption
 - Network effects

- Payment efficiency
 - Energy consumption
 - Network effects
- Information asymmetries and market safety

- Payment efficiency
 - Energy consumption
 - Network effects
- Information asymmetries and market safety
- Criminal activity

Prohibition and taxation

- Prohibition and taxation
- Securities law

"If it quacks like a duck and looks like a duck ..."





Drops Stats

Q Search items, collections, and accounts



				Connect wallet	0	Ä
t around the world					Ş	•••
e Ducks						
d by yurilchuk						
view 💙 2 favorites						
Sale ends September 12, 2023 at 1:31 PM						
rent price						
5 ETH \$27,845.10						
Buy now	Ä		\bigtriangledown	Make offer		
Price History						^
	C	9				
	No events bay	e occurred yet				
		ack later.				



• SEC:

- SEC:
 - Bitcoin spot exchange-traded funds are not allowed

- SEC:
 - Bitcoin spot exchange-traded funds are not allowed
 - Bitcoin futures exchange-traded funds are allowed

- SEC:
 - Bitcoin spot exchange-traded funds are not allowed
 - Bitcoin futures exchange-traded funds are allowed
 - Pretty much everything Coinbase is doing is not allowed

- SEC:
 - Bitcoin spot exchange-traded funds are not allowed
 - Bitcoin futures exchange-traded funds are allowed
 - Pretty much everything Coinbase is doing is not allowed
 - But for Binance ...

- SEC:
 - Bitcoin spot exchange-traded funds are not allowed
 - Bitcoin futures exchange-traded funds are allowed
 - Pretty much everything Coinbase is doing is not allowed
 - But for Binance ...
- Offering consumers pooled staking credits is not allowed

- SEC:
 - Bitcoin spot exchange-traded funds are not allowed lacksquare
 - Bitcoin futures exchange-traded funds are allowed
 - Pretty much everything Coinbase is doing is not allowed
 - But for Binance ...
- Offering consumers pooled staking credits is not allowed
 - but in a permissionless proof of stake blockchain those credits are enabling processing and have a natural equilibrium outcome.



- Prohibition and taxation
- Securities law

- Prohibition and taxation
- Securities law
- Banking regulation

- Prohibition and taxation
- Securities law
- Banking regulation
- Tax treatment

Raising funds

- Raising funds
- Incentivising co-innovation

- Raising funds
- Incentivising co-innovation
- Regulatory uncertainty

palgrave**•pivot**

米

The Economics of Blockchain Consensus Exploring the Key

Tradeoffs in Blockchain Design

Joshua Gans

pəlgrəve macmillan

@joshgans joshuagans.com