



# The Economics of Bitcoin Mining

Stefan Loesch

The Short STOrY Podcast

May 2020

# Agenda

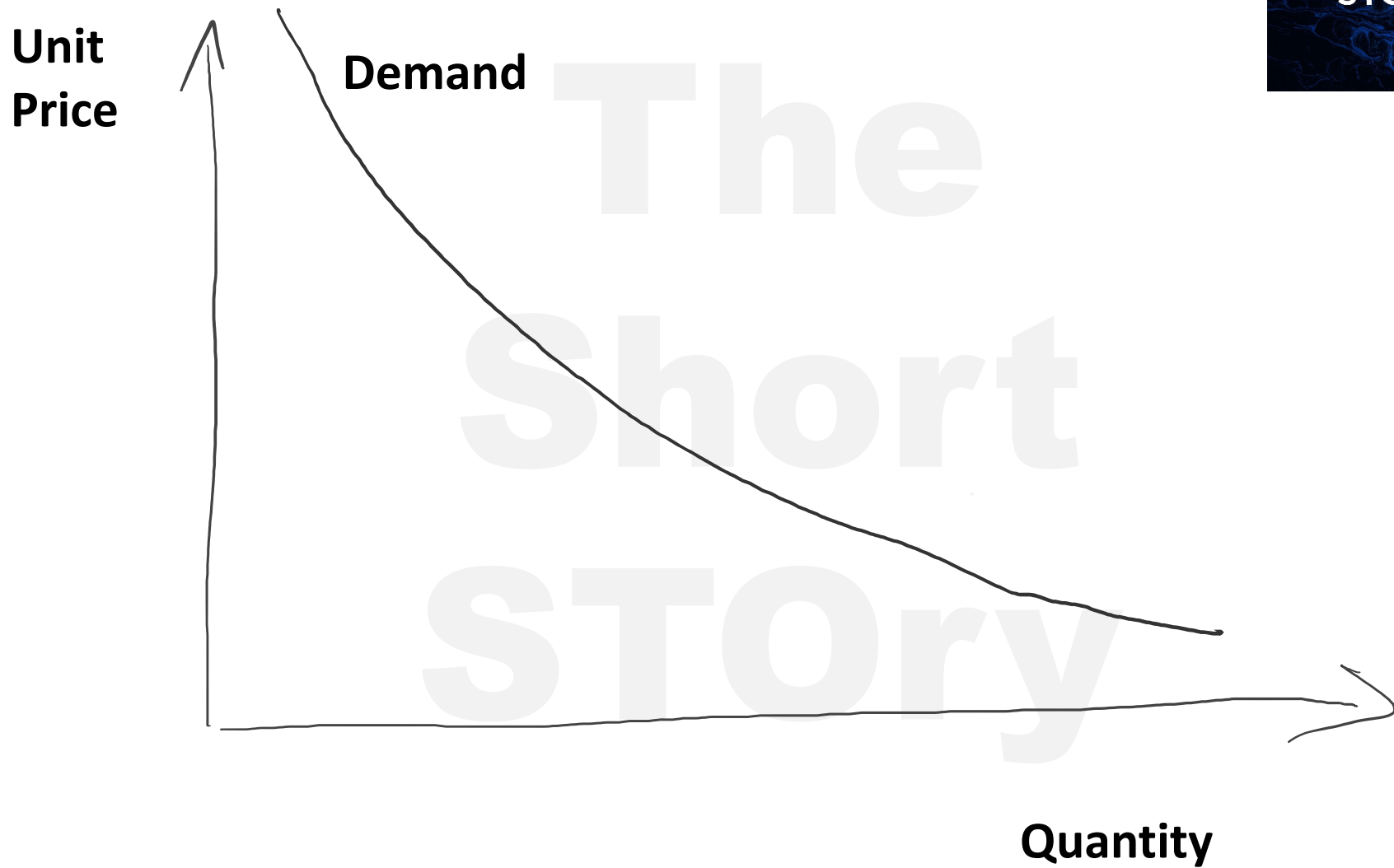


1. Background: The Halvening aka the mining reward will drop by almost half. What will this do?
2. Microeconomic supply vs demand analysis as an example (introducing cost curves).
3. Bitcoin mining cost vs reward analysis. The Bitcoin mining cost curve.



# Microeconomic Supply / Demand Analysis

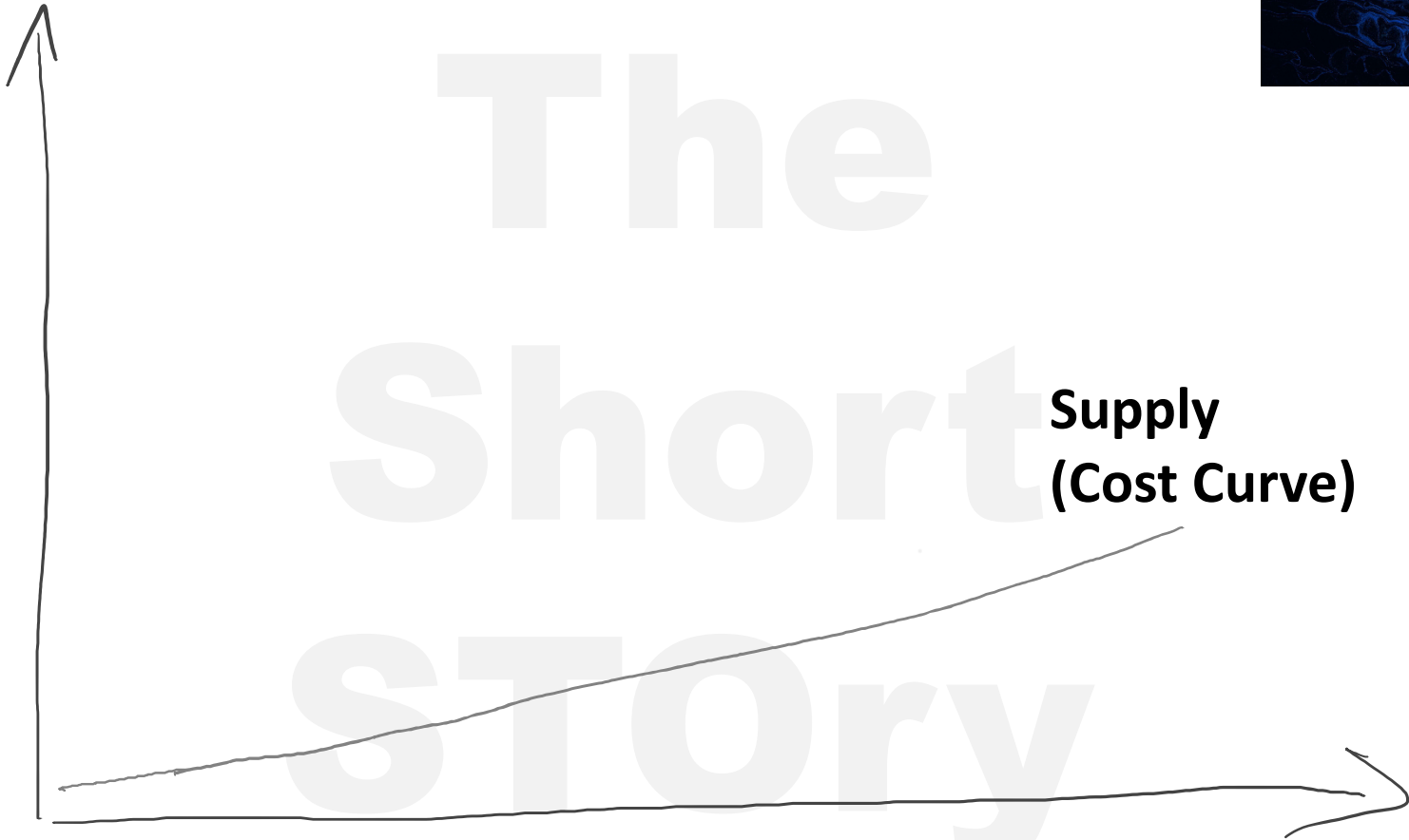
# Demand Curve



# Supply Curve

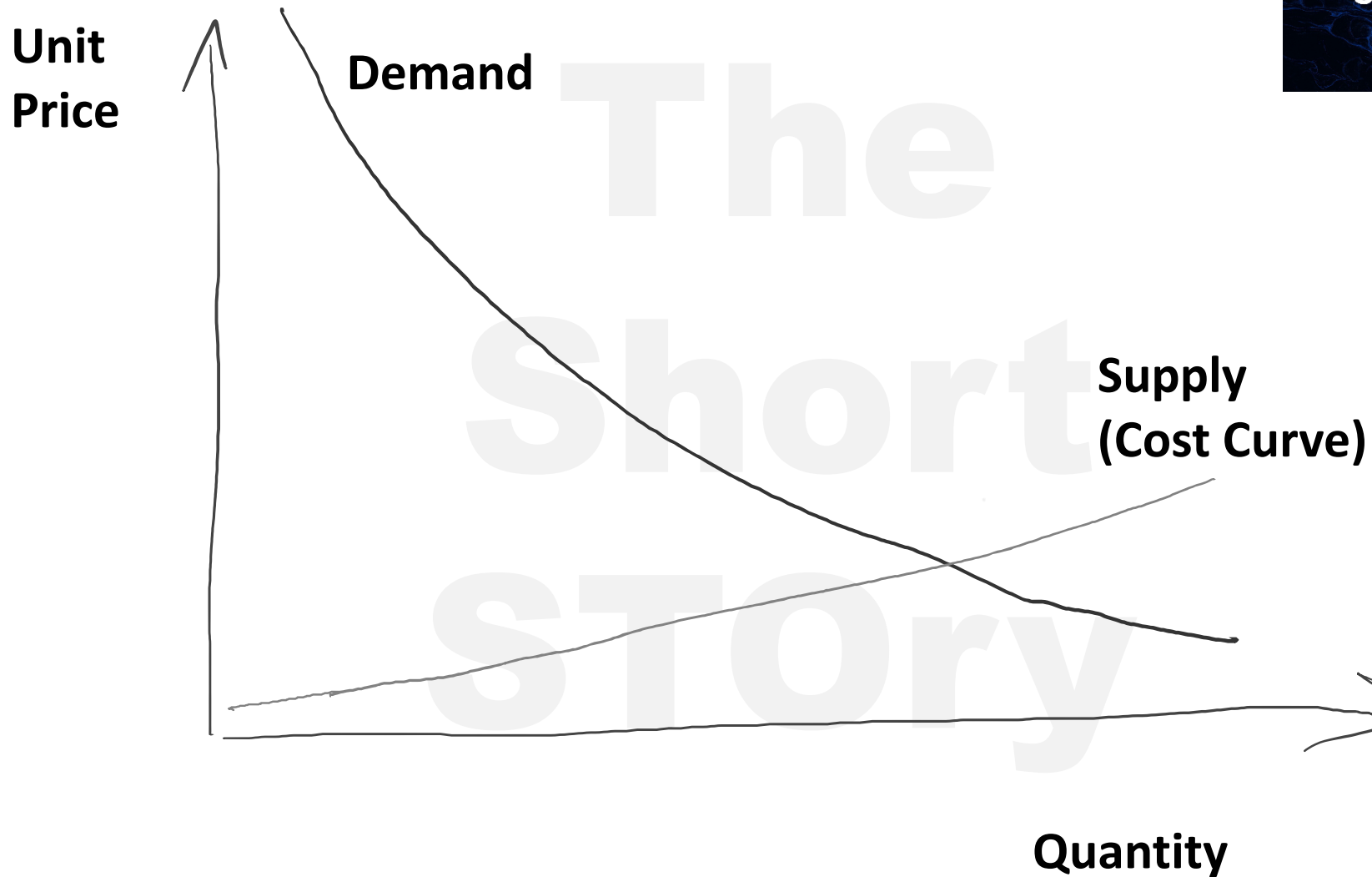


Unit  
Price

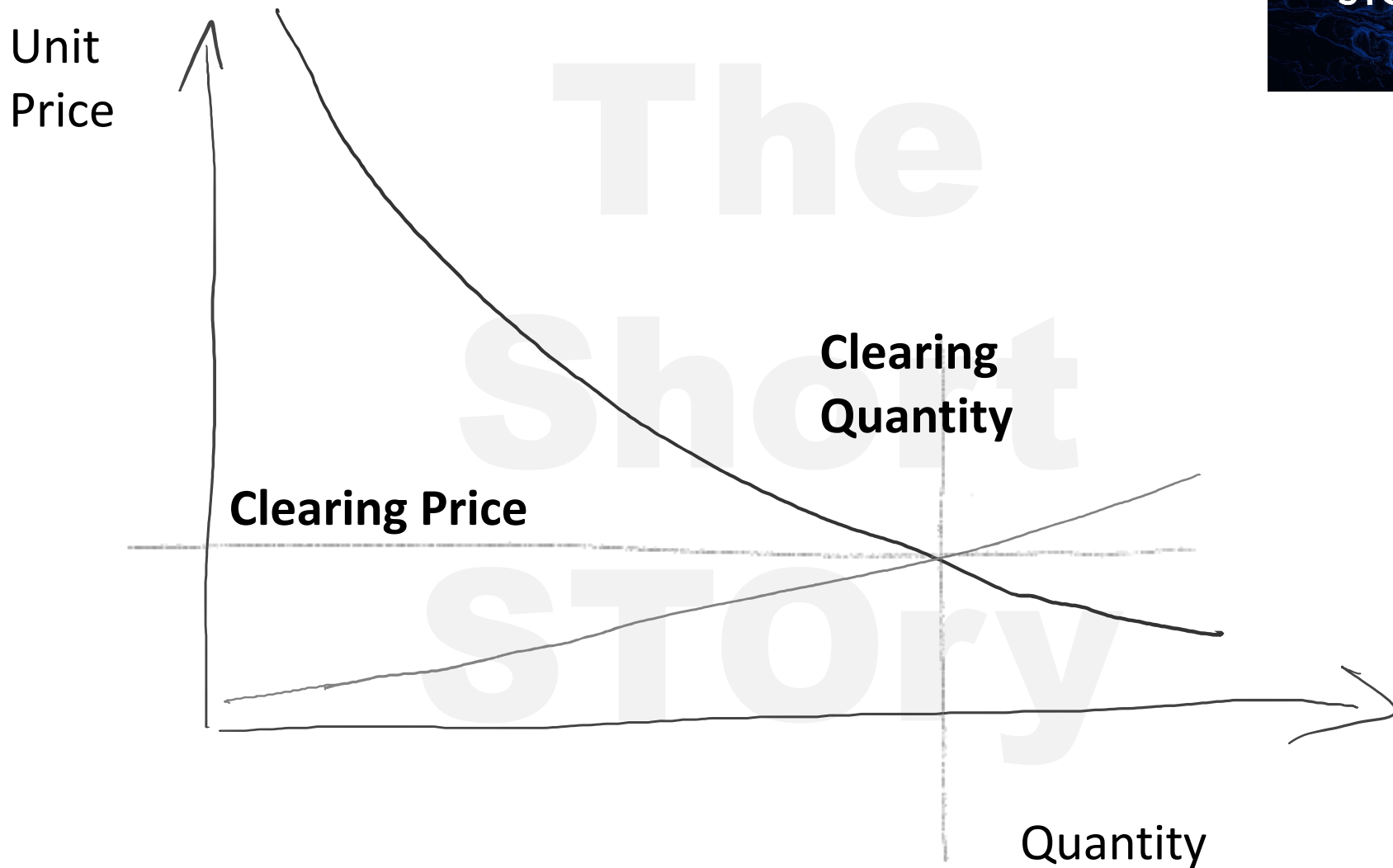


Quantity

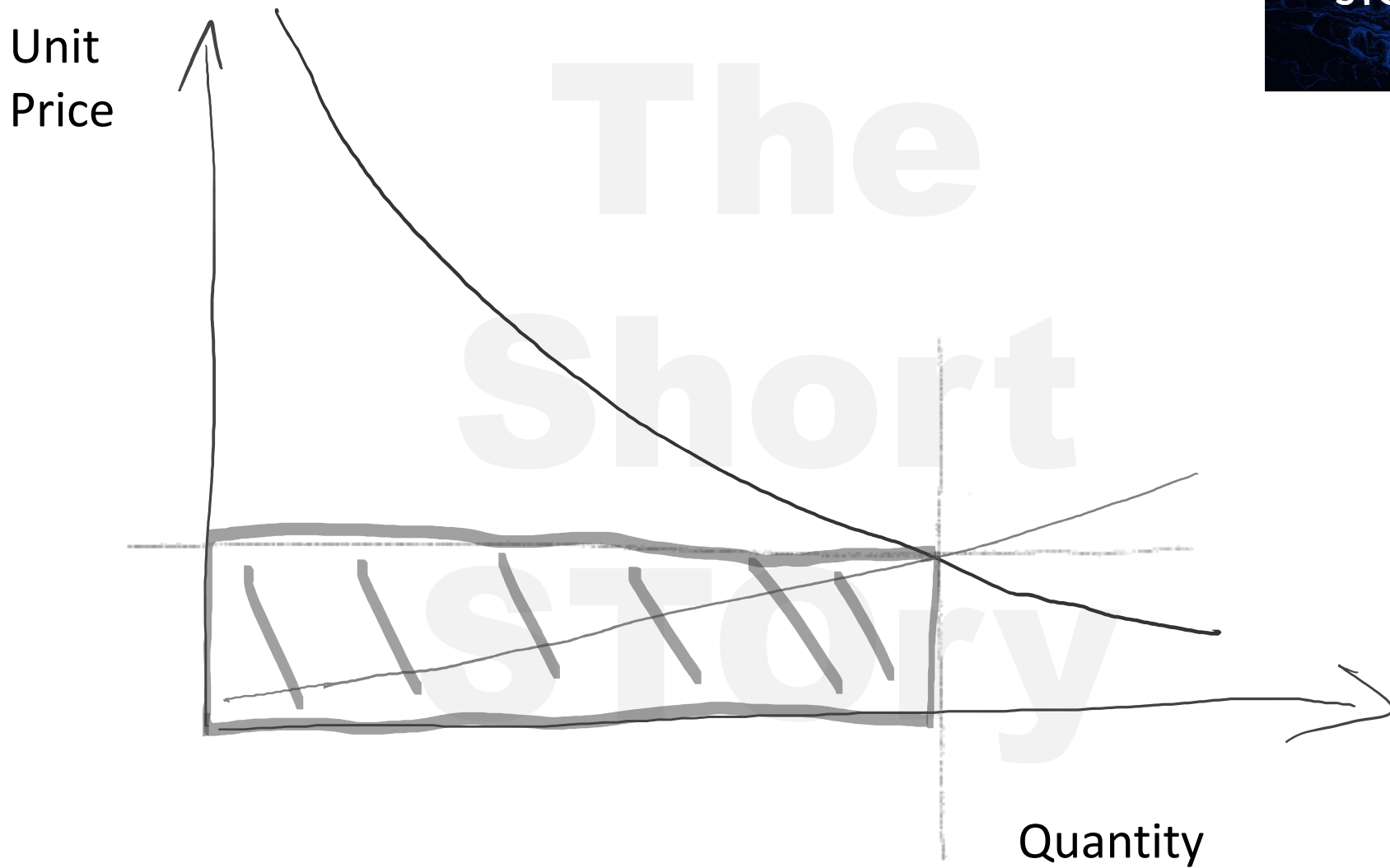
# Supply Demand Chart



# Market Clearing Price

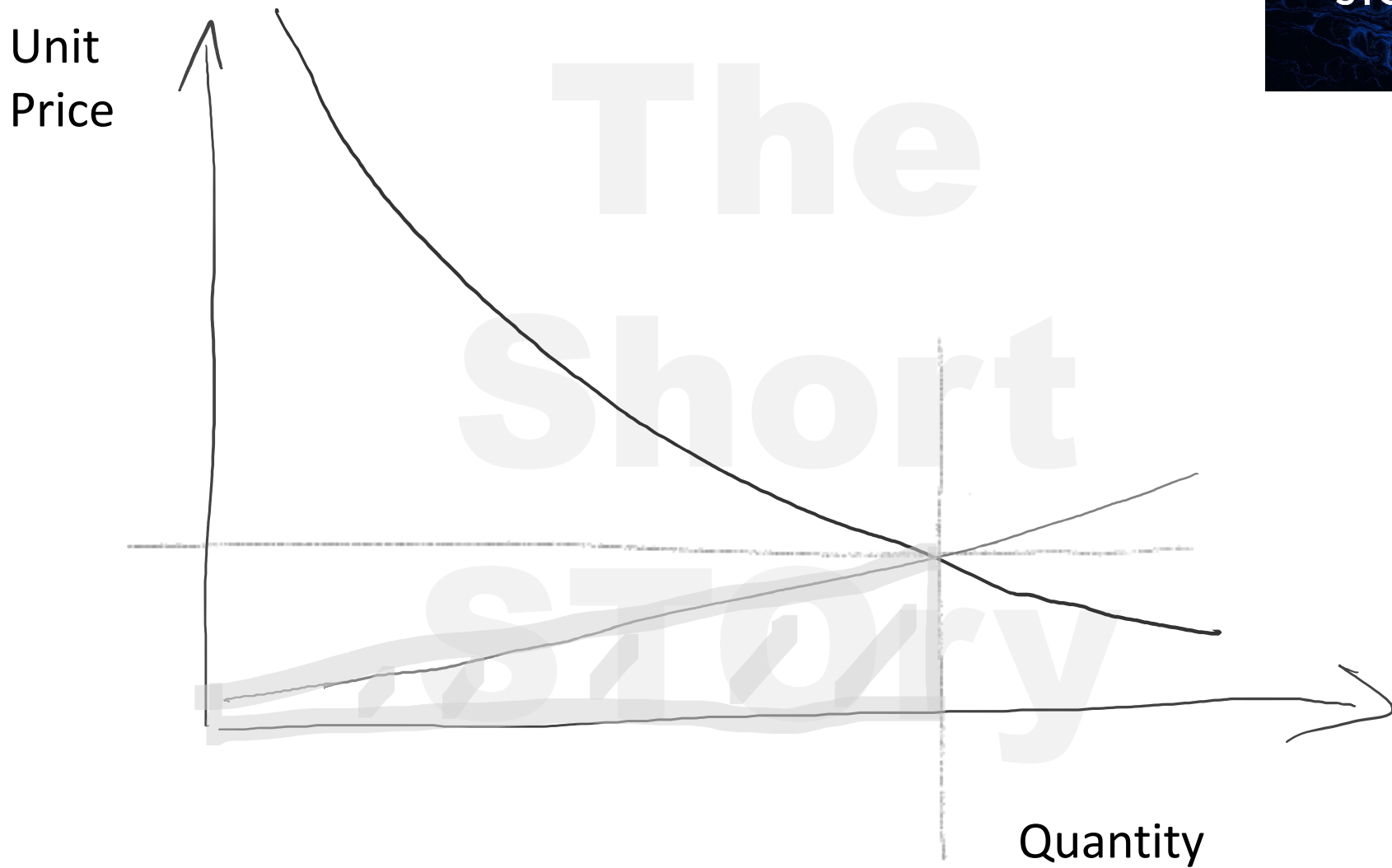


# Total Revenues

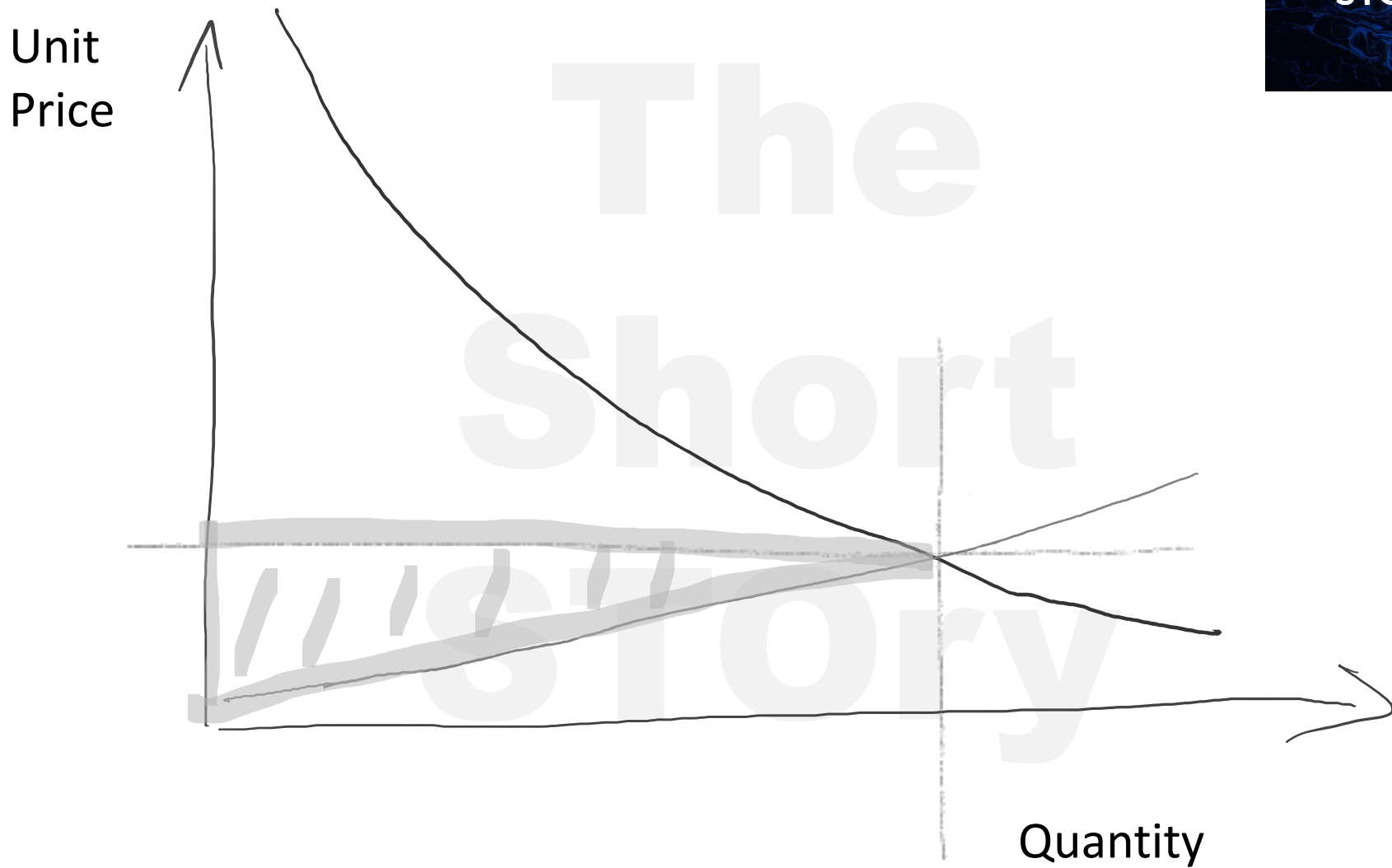




# Total Costs



# Total Profit





# The Microeconomics of Bitcoin Mining

# Antminer S2 Equivalent Hashrate



**1**



**Antminer S2  
equivalent**

**=**

**1 Tera  
Hash  
per  
sec\***

*\*1TH/s = 1 trillion hashes per second*

# Mining Cost/Reward Chart



Bitcoin  
per  
S2 equiv  
hash rate  
per  
10min\*

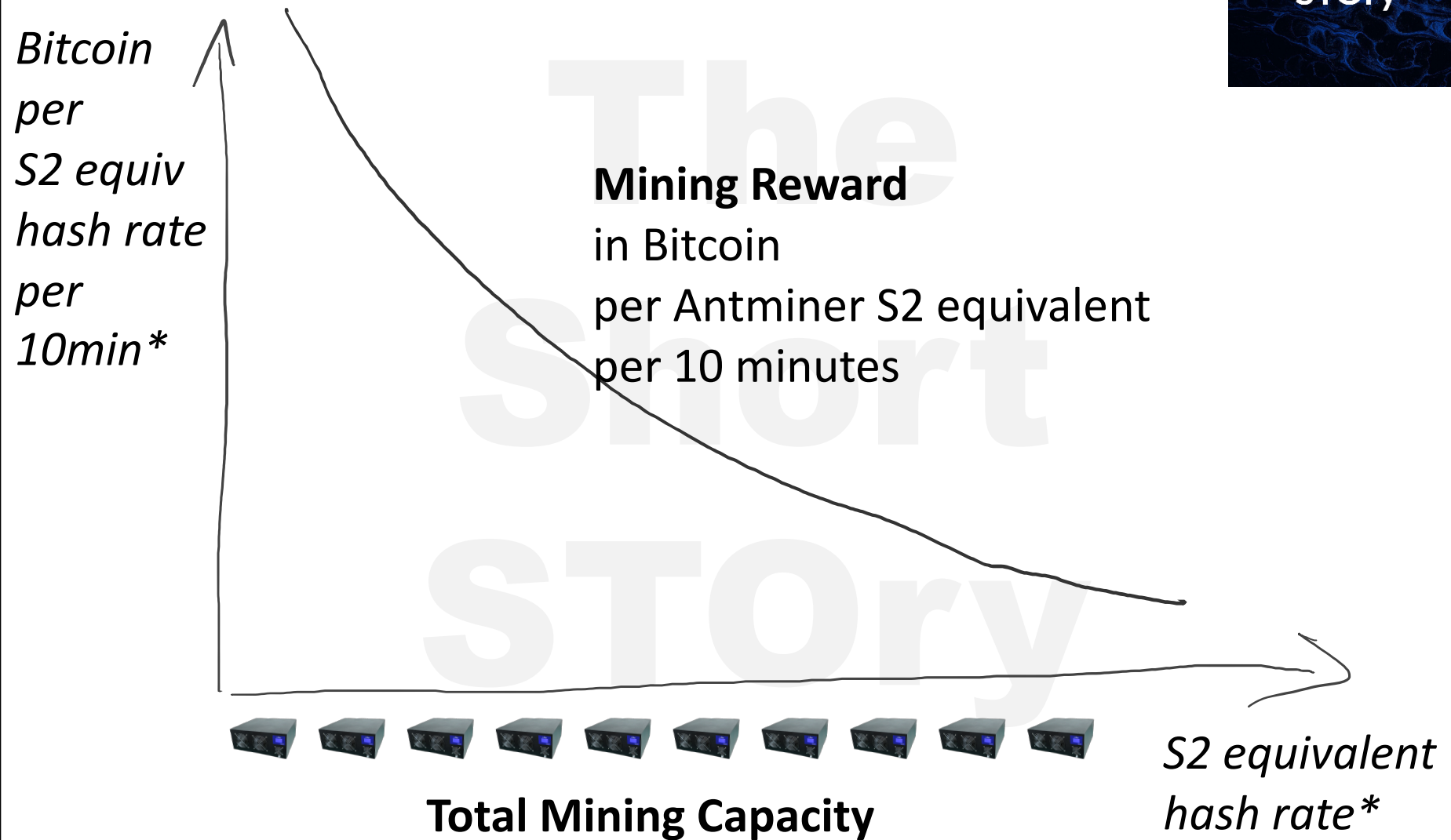


**Total Mining Capacity**

**S2 equivalent  
hash rate\***

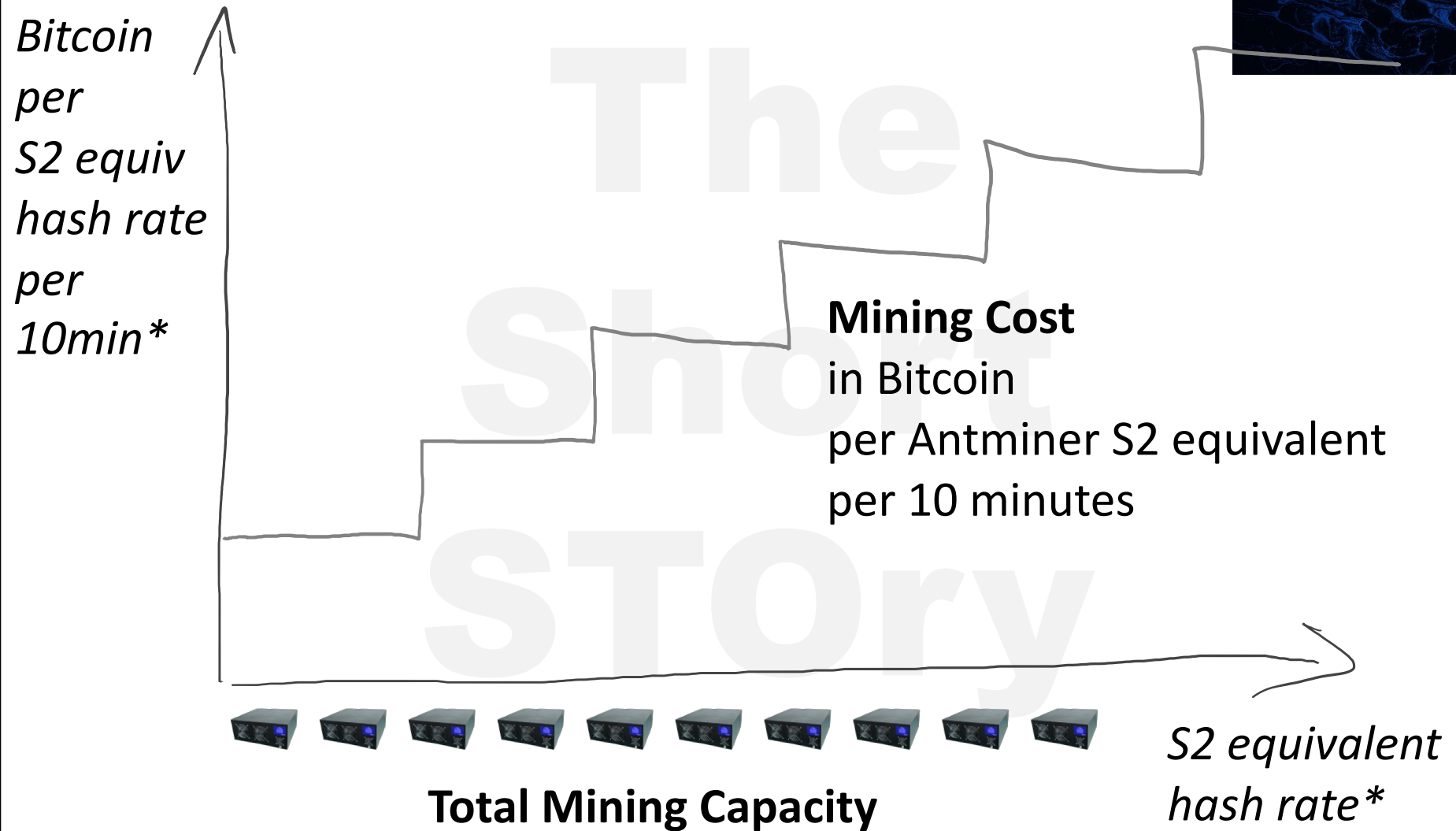
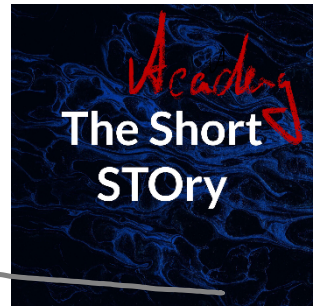
*\*Antminer S2 equivalent hash rate = 1TH/s*

# Mining Reward Curve



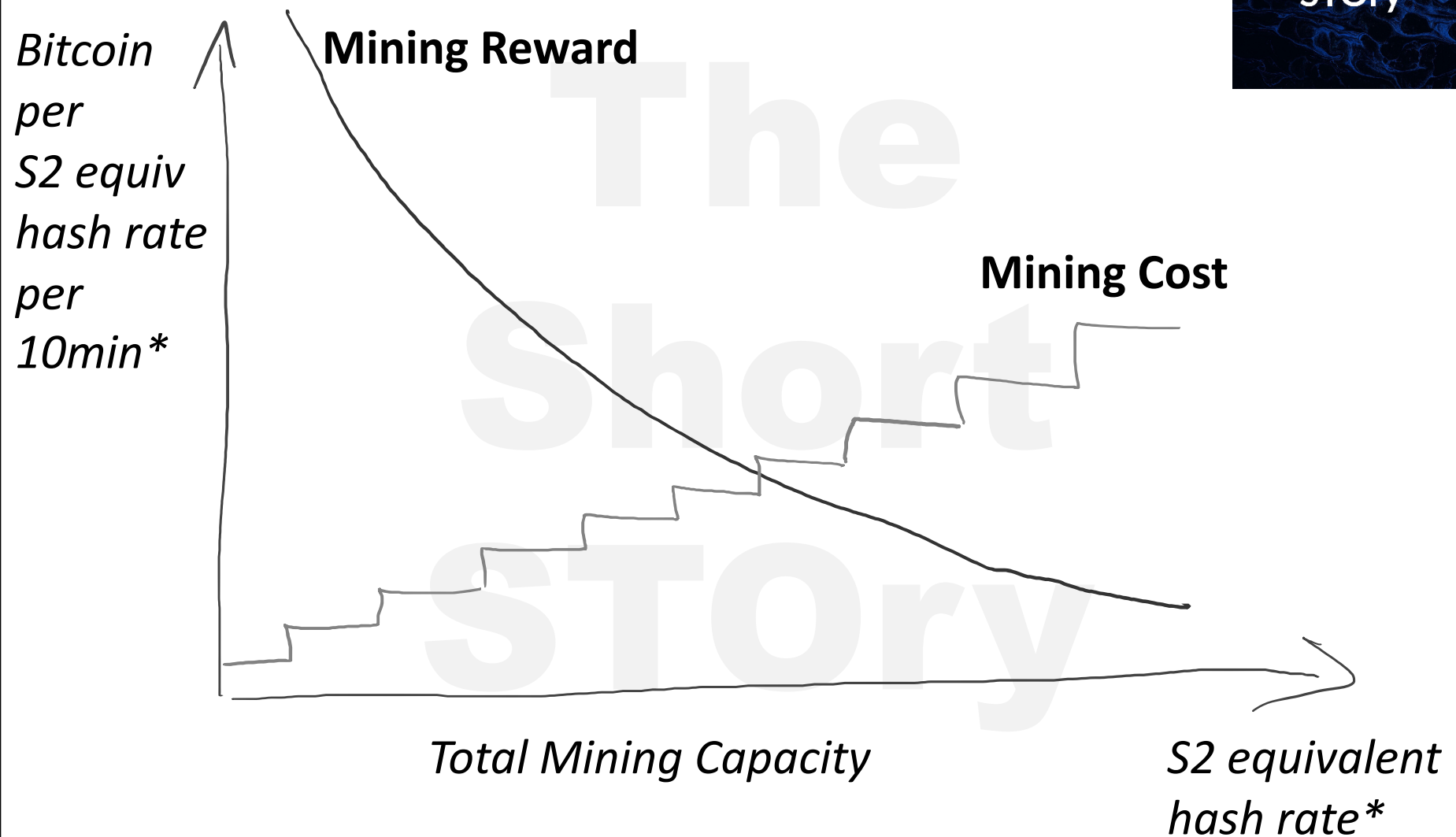
\*Antminer S2 equivalent hash rate = 1TH/s

# Mining Cost Curve



\*Antminer S2 equivalent hash rate = 1TH/s

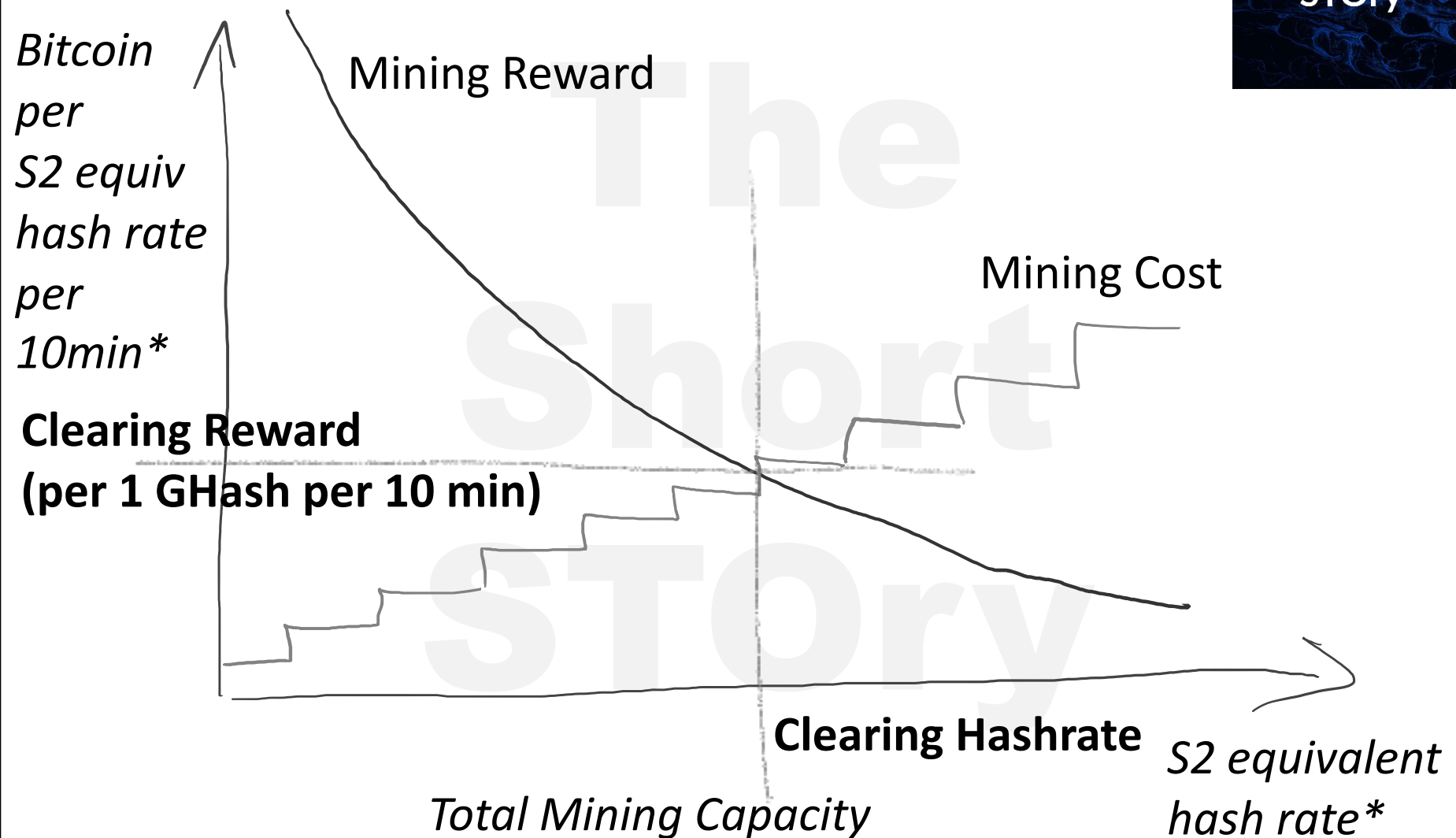
# Mining Cost / Reward Chart



\*Antminer S2 equivalent hash rate = 1TH/s

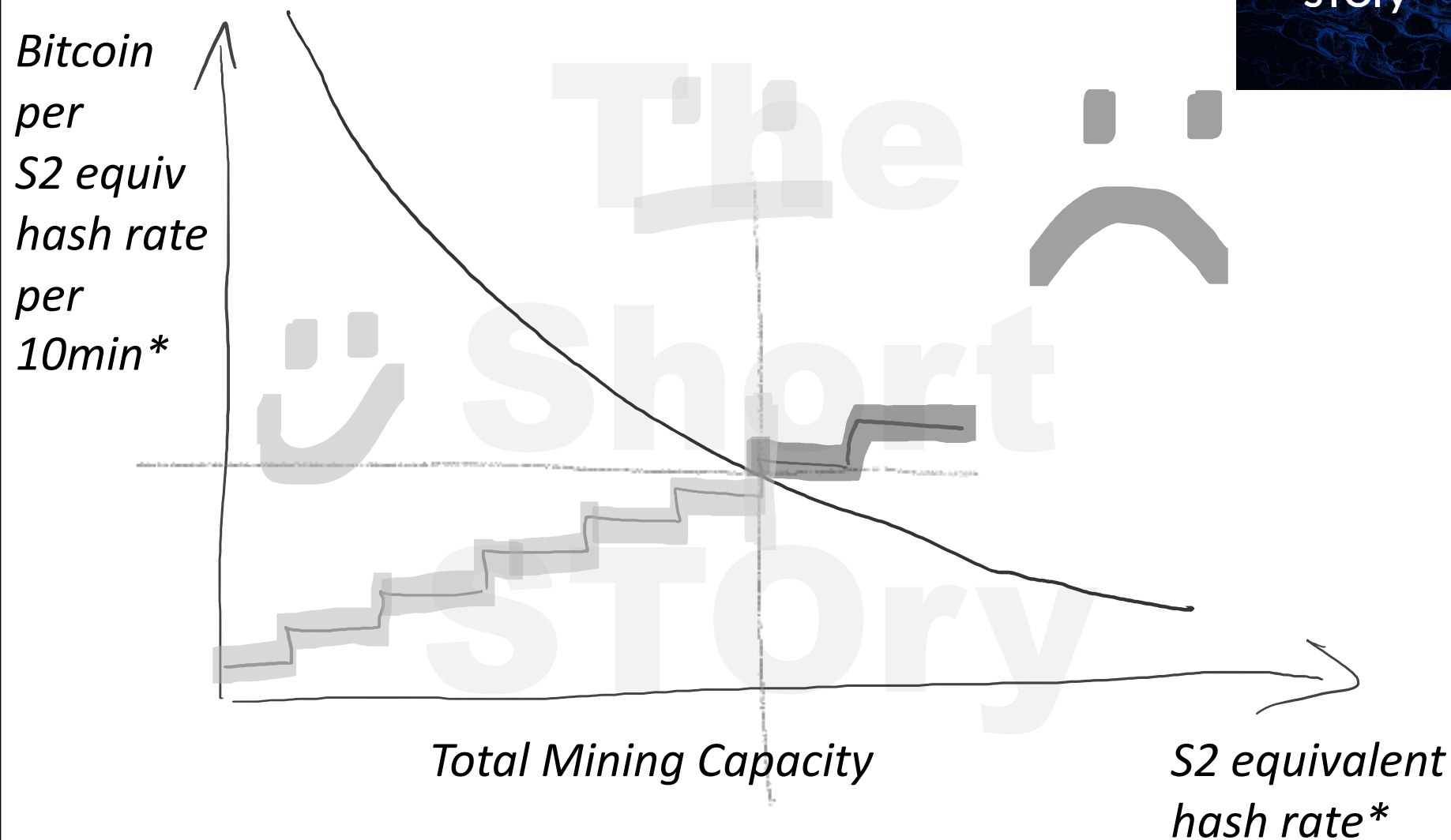


# Clearing Reward and Hashrate



\*Antminer S2 equivalent hash rate = 1TH/s

# Who's in and who's out?

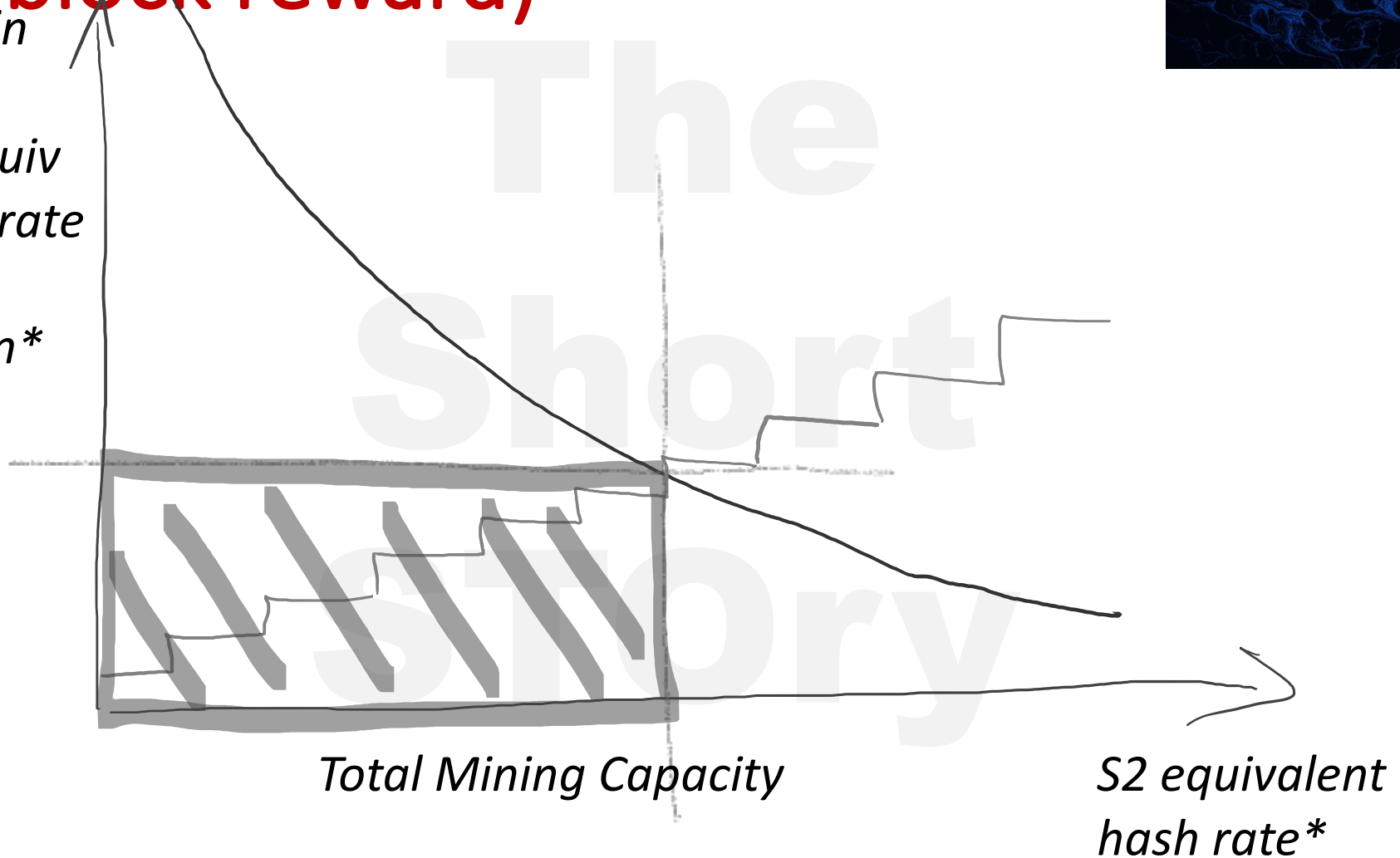


\*Antminer S2 equivalent hash rate = 1TH/s

# Total Mining Revenues (=block reward)

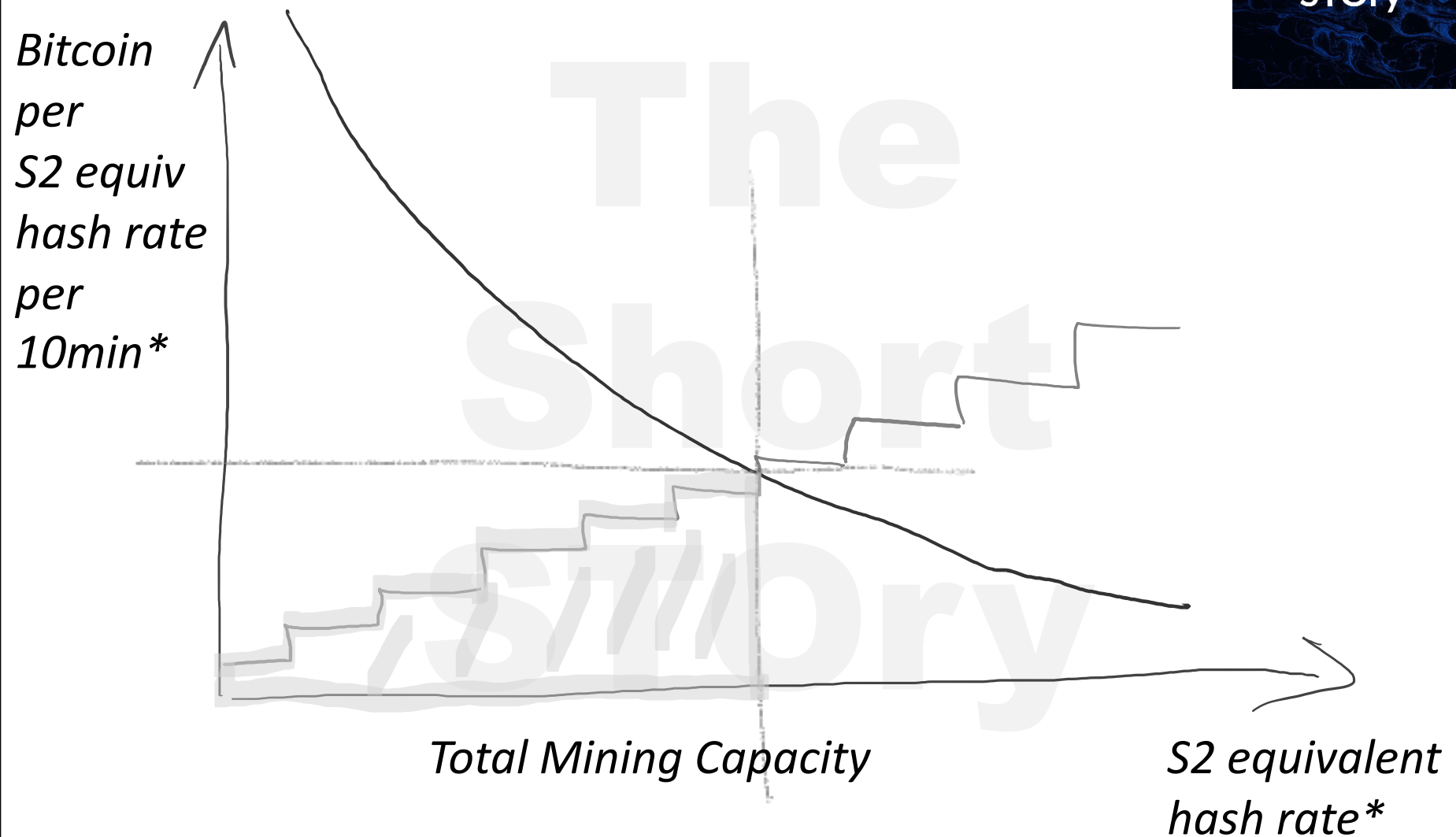


Bitcoin  
per  
S2 equiv  
hash rate  
per  
10min\*



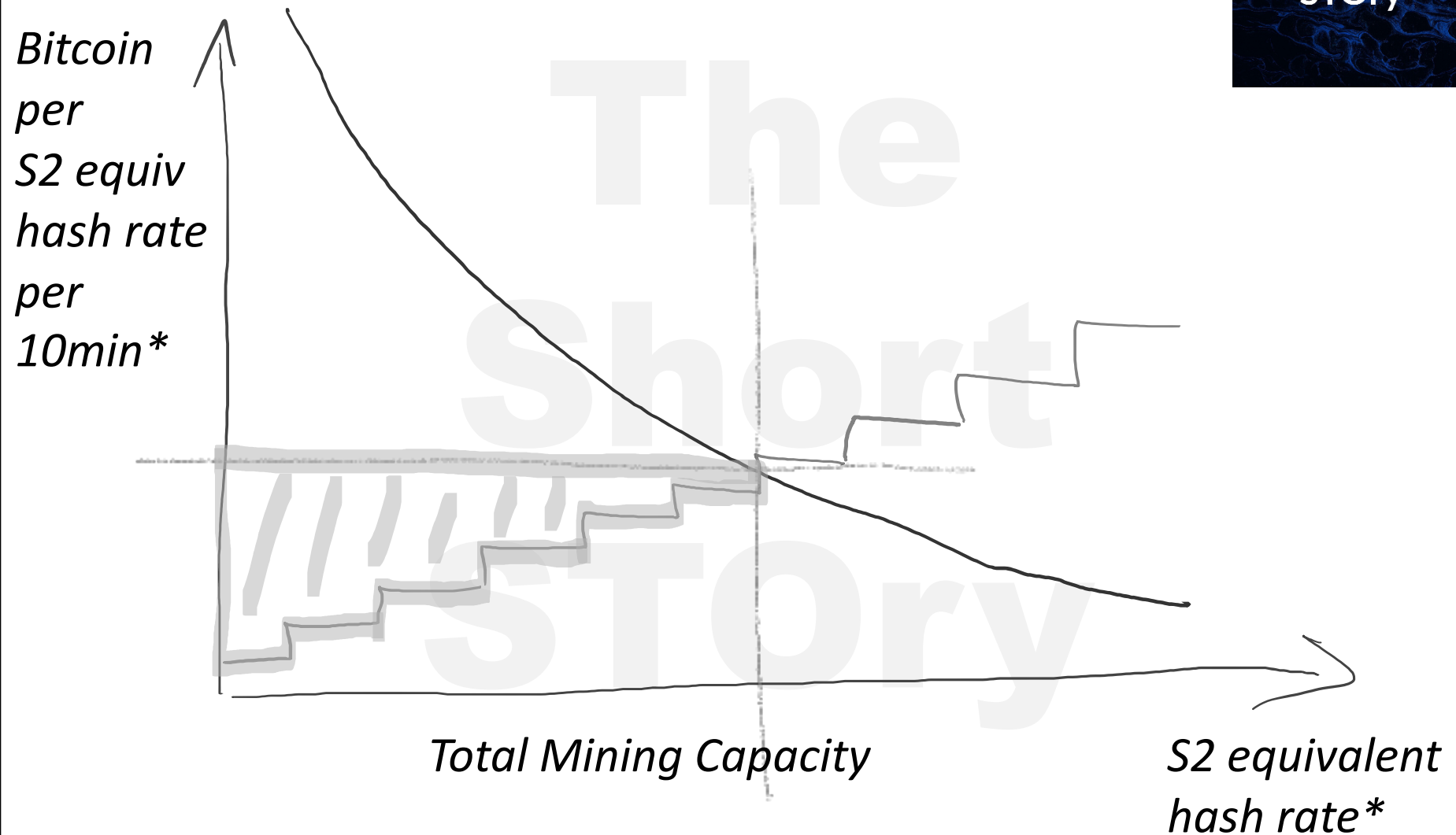
\*Antminer S2 equivalent hash rate = 1TH/s

# Total Mining Cost

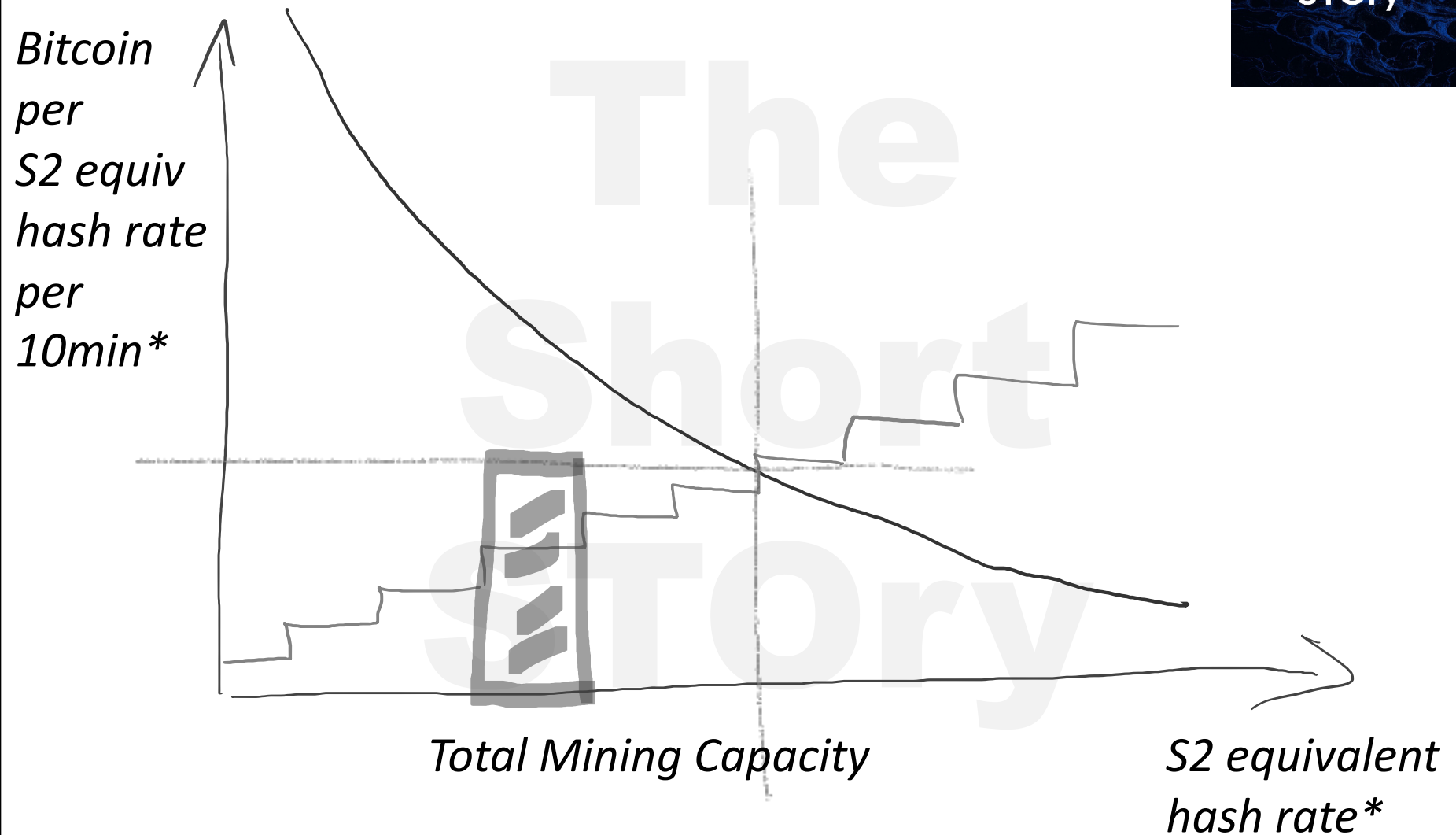


\*Antminer S2 equivalent hash rate = 1TH/s

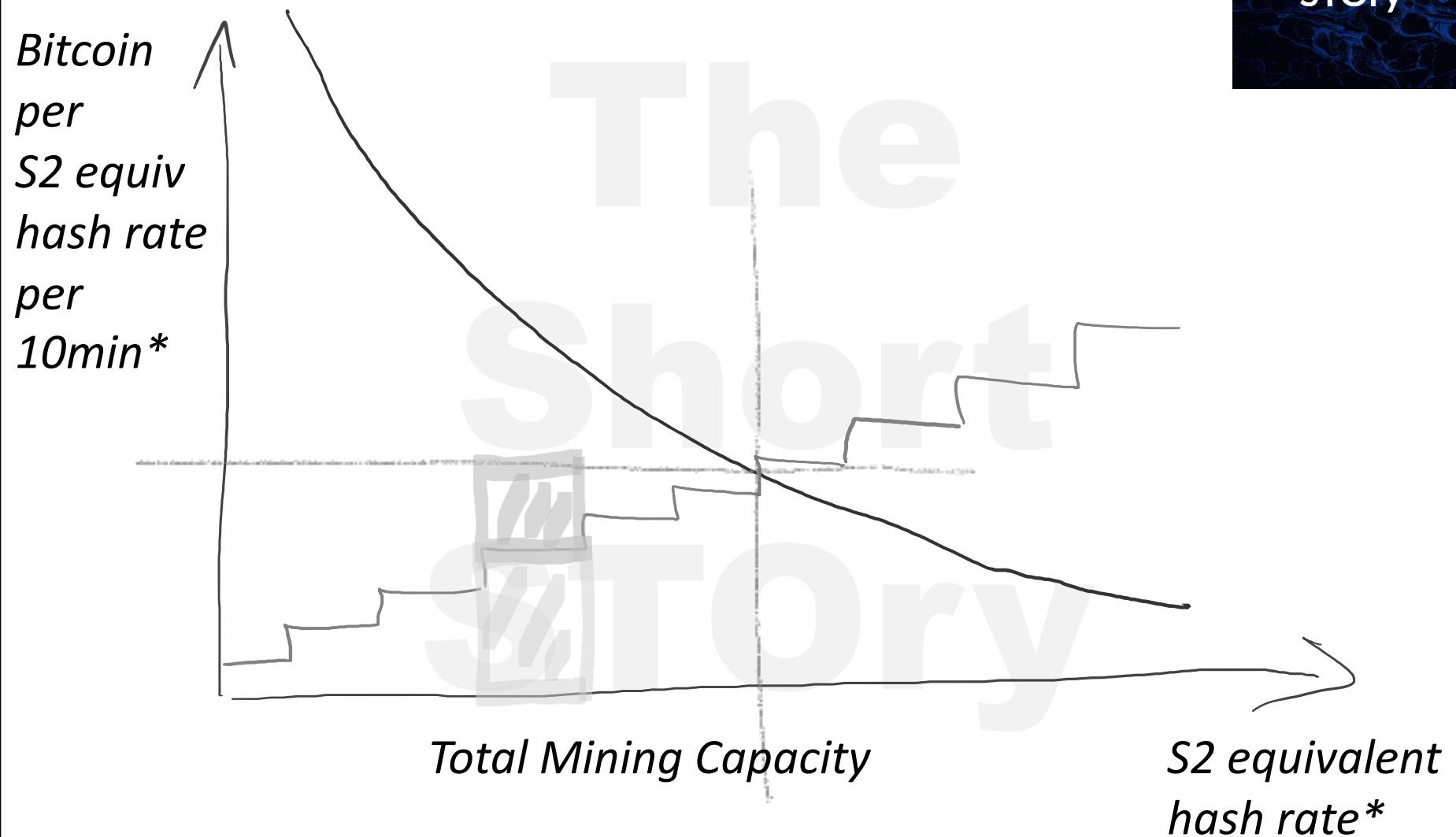
# Total Mining Profit



# Mining Revenues Single Miner

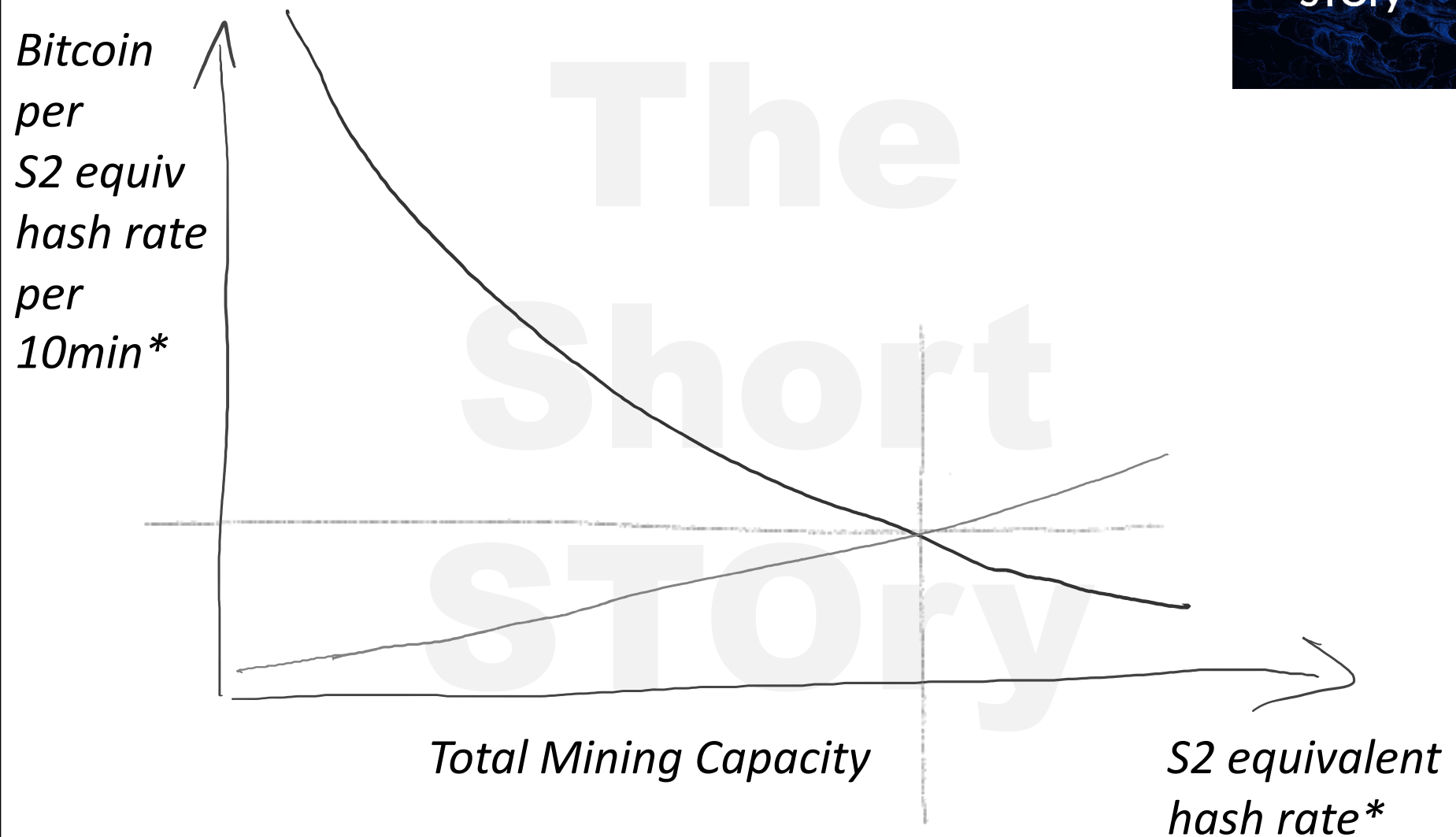


# Cost & Profit Single Miner



\*Antminer S2 equivalent hash rate = 1TH/s

# Without Steps



\*Antminer S2 equivalent hash rate = 1TH/s





# The Short STOrY

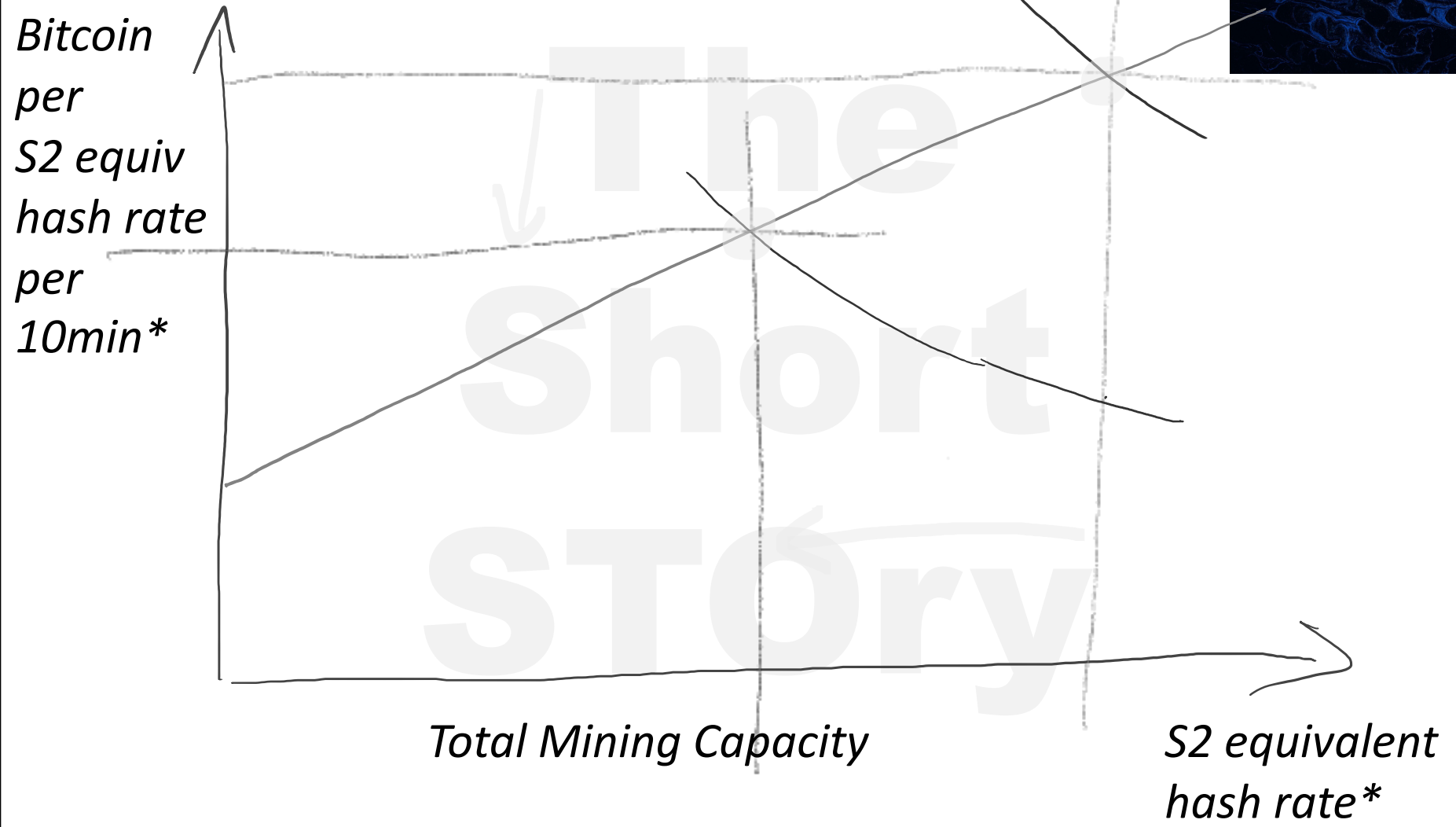
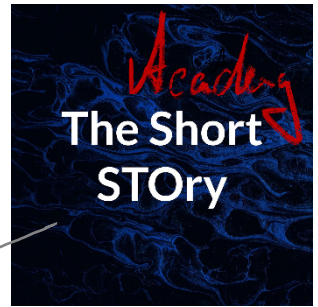
## Halving

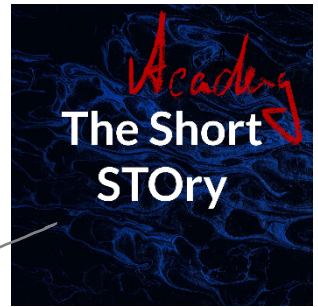


Bitcoin  
per  
S2 equiv  
hash rate  
per  
10min\*

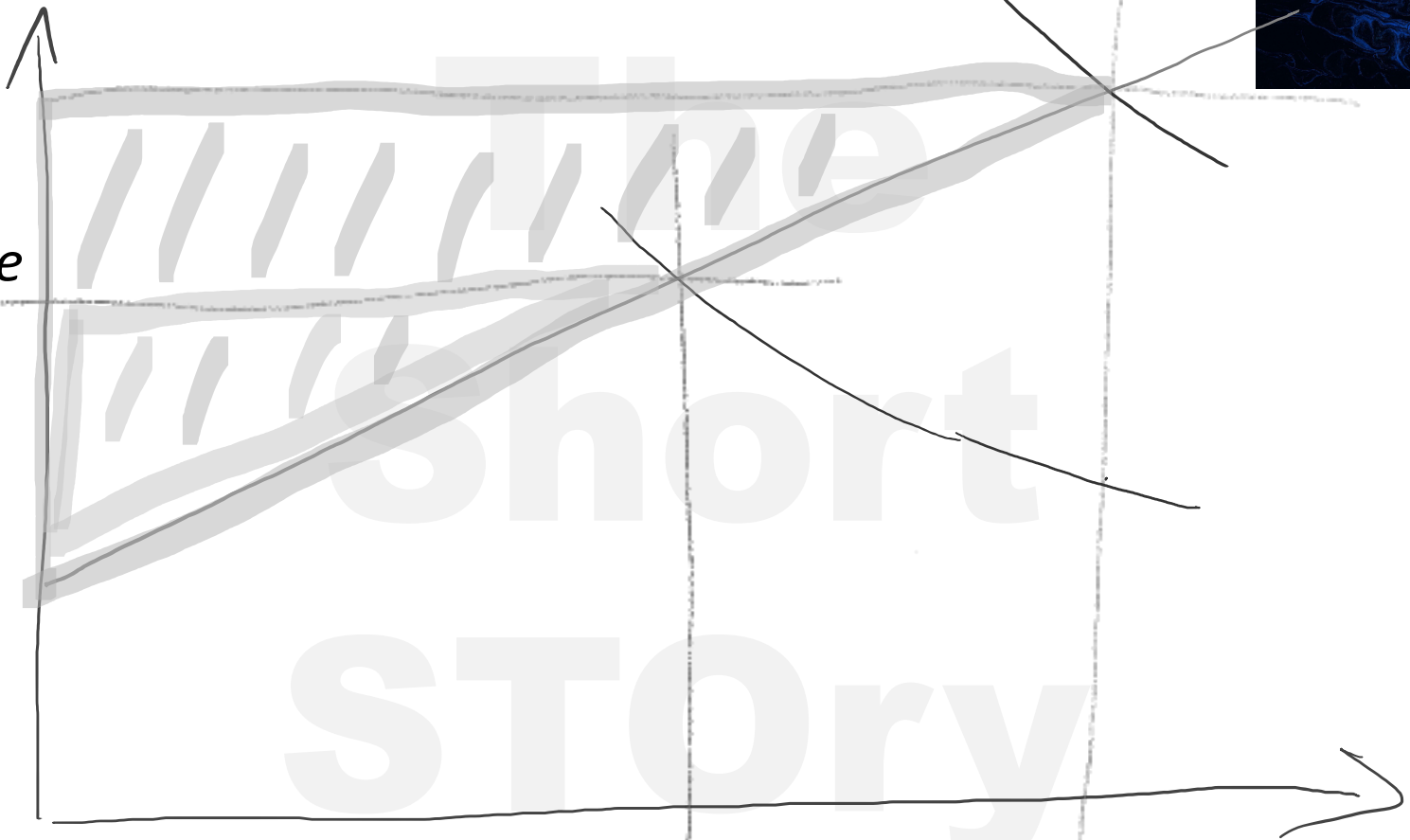
Total Mining Capacity

S2 equivalent  
hash rate\*





Bitcoin  
per  
S2 equiv  
hash rate  
per  
10min\*



Total Mining Capacity

S2 equivalent  
hash rate\*