



## Linzhi Working Papers

No 13

### ASICs: A Manufacturer's Perspective.

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# ASICs: A Manufacturer's Perspective

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# SPEAKER


Min  
**Chen**

Founder & CEO  
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# Causes of centralization

ASICs don't "cause" centralization.



Economic  
Power



Technological  
advantage



# The economics of a Miner



**80-90%** of the cost of a Miner is in the ASICs/GPU.

If **AMD** or **Nvidia** decided to mine, they could quickly become a central mining power.



# The economics of Farming



## **CAPex:**

Building  
Transformers  
Racks  
Land  
Miners

**\$200~300 per machines** to install them.

## **Opex:**

Electricity  
Repairs  
Security



# So why don't NVIDIA & AMD farm?

A Typical Chip Company B/S	
Revenue	\$100.00
- Cost of Chip	\$40.00
Gross Margin	<b>\$60.00</b>
- R&D Expense	\$10.00
- SG&A Expense	\$15.00
Net Profit	<b>\$35.00</b>

If you are Nvidia, how do you spend this **\$35**?

- A) Push it back into more R&D on **better chips**?
- B) Start a **new business** of buying land, power contracts, transformers ect, to make money by mining over a long period.



# So why don't NVIDIA & AMD farm?

For companies like NVIDIA and AMD, it makes more sense to continue the existing model (IT WORKS) rather than to expand into a business that has a high CAPex, paid back over long periods.

They make chips and sell them quickly.  
FURTHER, the chips market is relatively stable: it doesn't (for the most part) have the same volume volatility of crypto mining.

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**Question:** If you were NVIDIA, how many farms would you plan on building and how long would it take?

Different business, different cash flow, too much risk when you have a model that works.



# What is Linzhi's business going to be?



It is not the style of hardware that leads to centralization.

It is the style of the business.

Hardware is not your enemy.

Linzhi will save power with revolutionary ETC/ETH ASICs.

**The same security with  $\frac{1}{8}$ th of energy costs**

# Project Lavasnow: An ASIC for ETC and ETH

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## Machine Spec:

1400 MH/s (vs Bitmain 180)

Power: 1000 W

Daily Revenue: ~\$20  
(vs Bitmain ~ \$3.00)

Delivery: April 2019

ROI: <4 month

## Team Expertise:

8 BTC ASICs, including the first ever

No failed tape outs

TSMC licence

Full custom capability

Small and focused

# Future Path of useful hardware



**Linzhi**



**Logic + Memory + IO** (off chip memory)



**Logic + Memory** (on chip)



**Logic**

Hardware is ready to **contribute more**





# Linzhi Shenzhen

## Q & A

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