# Designing Conditional Markets and **Futarchy**

Using Markets for Decision Making

kas.eth & Robin Hanson





### Section 1

# What Are Conditional Markets?

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## Prediction Market

### **HIGH FEES?**

Will gas fees be > 100 Gwei in 2025?





## Conditional Market

ETH-YES: 3,450 DAI 40%

ETH-NO: 2,850 DAI 60%



## **Conditional Spot Markets**

Condition: will gas fees > 100 Gwei in 2025? YES/NO

DAI → DAI-YES + DAI-NO (prediction market) ETH → ETH-YES + ETH-NO (conditional assets)

Current ETH price 3090 DAI

ETH-YES / DAI-YES pool

Ethereum price conditional on high fees 3,450 DAI

ETH-NO / DAI-NO pool

Ethereum price conditional on low fees 2,850 DAI



## Conditional Futures Markets

Will the FOMC cut interest rates next —— meeting? YES/NO

This can be used to inform FOMC decisions...

and one day may be used to replace it!

Create inflation, unemployment futures (cond. on interest rate cut)

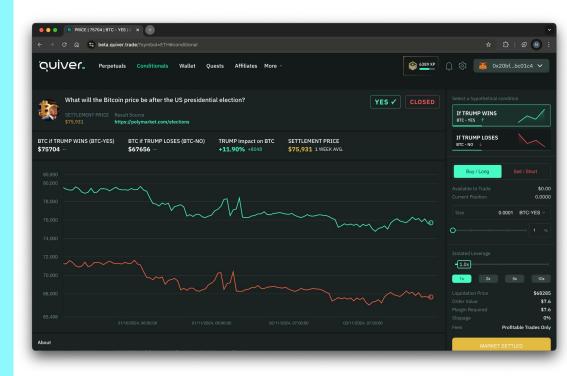
#### HOW?

Use the DAI-YES as collateral and P&L for all trades!





# Conditional Futures





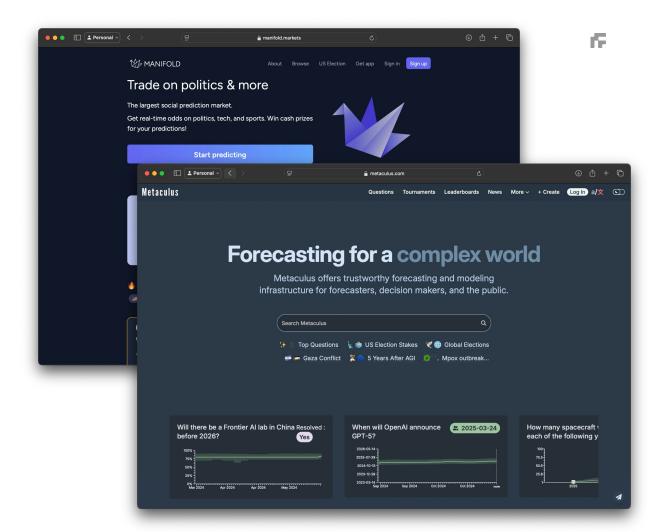
# **Futarchy**

•Use markets to estimate impact of decisions!

•Use estimates to actually decide things.

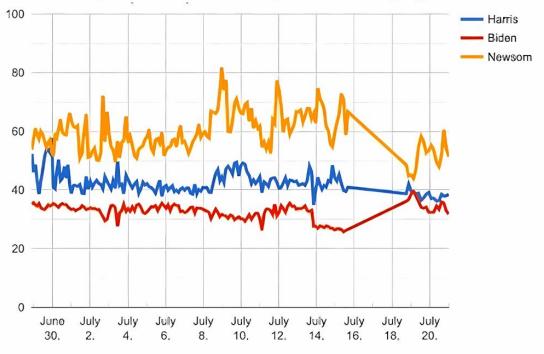
**EXAMPLES** 

# Manifold/ Metaculus



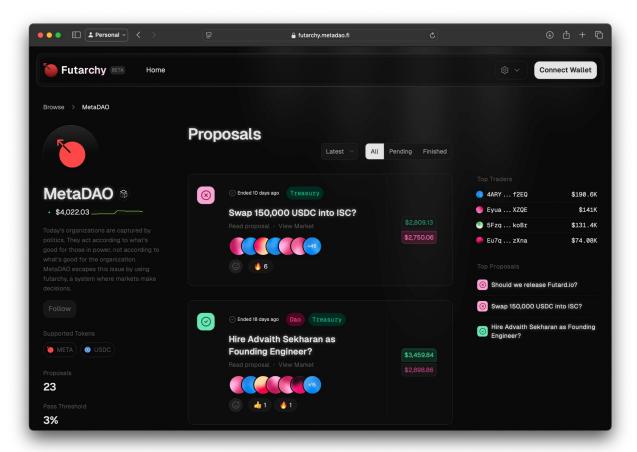


## Electability -- Chance of Winning if Nominated





## MetaDAO





### Section 2

# Futarchy Going Forward

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X: @\_futarchy

# PROPOSALS?

HOW TO INCENTIVIZE GREAT

# Futarchy Cycle

- 1. Bid to create proposal
- 2. Discussion + Edits
- 3. Market Evaluation
- 4. Automatic Execution
- 5. Pay Rewards



## Reward Distribution

## • Reward Size ~ Impact

- Winners:
  - Bidder of proposal
  - Liquidity Providers
  - Intellectual contribution
  - Other contribution

- Given out when:
  - Proposal Evaluated (+)
  - Proposal Approved
  - Proposal Delivered



## Being Built

- 1. Grant evaluation by objective (conditional on grant approval @MetaDAO @Buttery)
- 2.Futarchy BORGs: legal entities controlled by Futarchy (@Futarchy + @MetaLex)
- 3. Cryonics breakthrough (conditional on extra funding @CryoDAO)
- 4. Market advice for DAOs (@Futarchy + @Gnosis)

## More Ideas

- 1. Fire the CEO markets
- 2. Evaluation of future employee (conditional on being hired)
- 3. Chances of making deadline (conditional on project changes)
- 4.Long romantic relationship (conditional on first date @manifold.love)
- 5. Expected GPA for students (conditional on student admission)
- 6. Automatic capital allocation for companies.

  Automatically decide between [buyback, do nothing, selling shares] to maximize share price!



## Ethereum Governance

Credible-neutral advice for governance What will be the impact of roadmap decisions?

#### Long-term:

Can enshrined markets allow some governance decisions to be automated?

### **Prediction markets**

















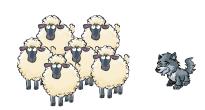


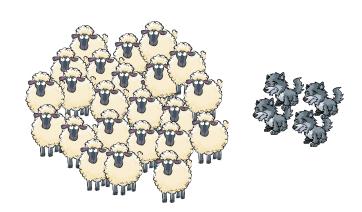
Section 3

# Problems and Design Choices

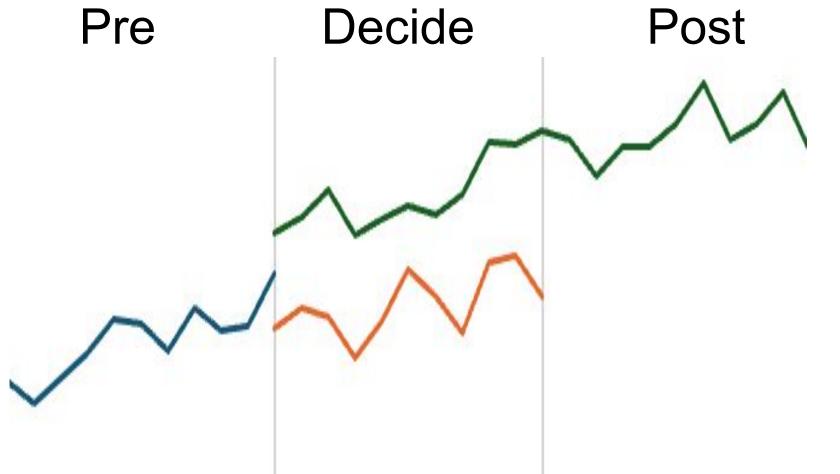
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# Wolves Follow Sheep









PROBLEM: Too many proposals; bad ones slip by

**SOLUTION:** Auction (descending?) for limited slots

PROBLEM: Hard to see price diff in thin markets

**SOLUTION:** Subsidize automatic market makers

PROBLEM: Rents as only incentive to propose

**SOLUTION:** Proposer reward if pass, % of value add?

PROBLEM: Prices mean less as outcome chance -> 0

SOLUTION: Include effect in stat model, + chance price

PROBLEM: Info arrival makes harder to see price diff **SOLUTION**: Max trading subsidy just before measure

PROBLEM: Only shows effect of short approval delay **SOLUTION**: 1st propose to only consider once for years

PROBLEM: Locked assets unlocked to reject proposals

**SOLUTION:** All or nothing sale to reject

PROBLEM: Replace good proposal with own version

**SOLUTION:** Reward proposer AND other contributors

PROBLEM: Prior deciders shamed, mad at losing control

**SOLUTION:** Safe decisions, new decisions, new norms

## Thank you!



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