

A Trading Market for Prices in Peer Production

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Paper: 32

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Research Question

How can a market design incorporate price signals into peer production, facilitate information sharing, and promote quality?

Our Answer

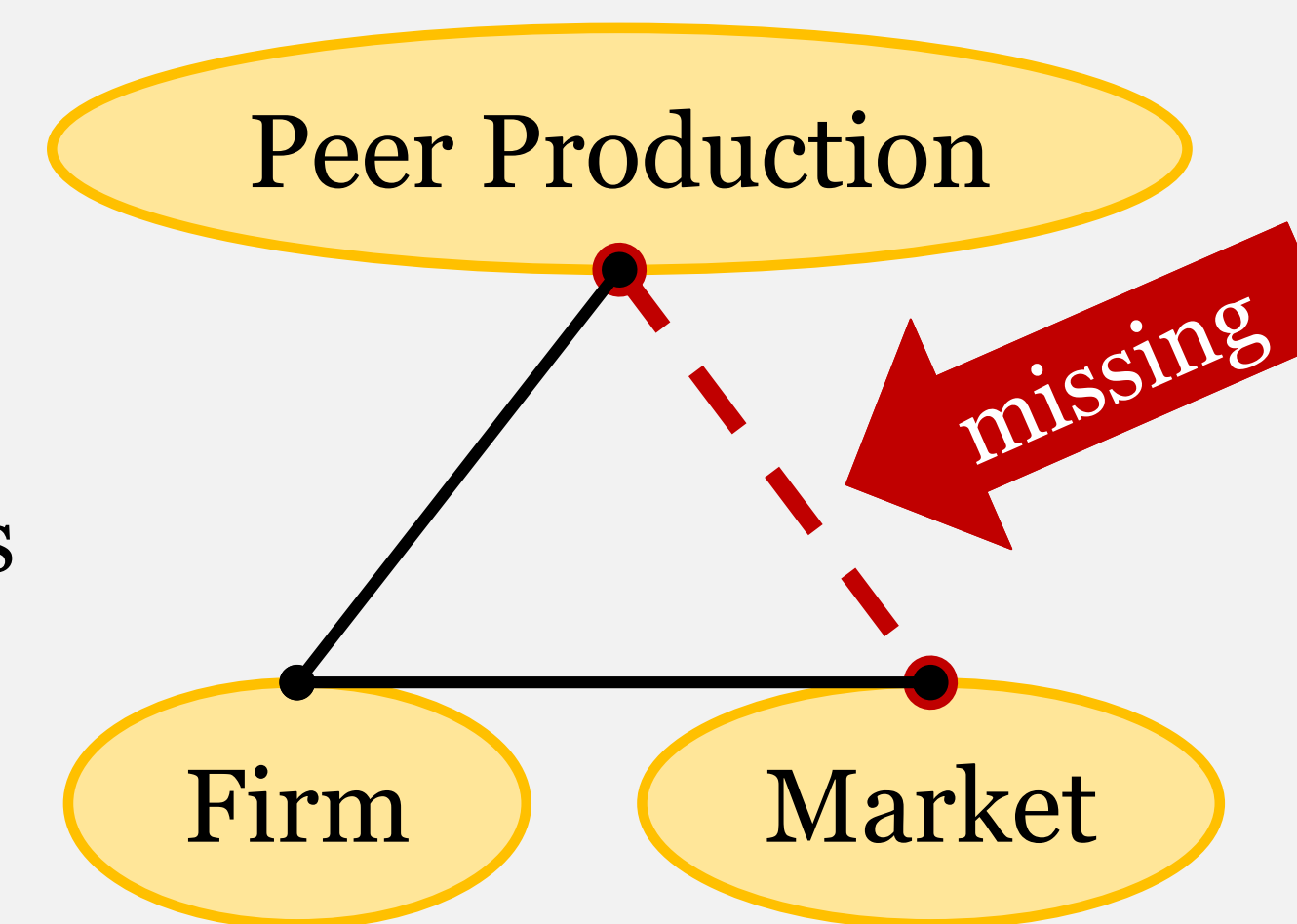
Futures market for trading on status of issues

Software Development Coordination

Users pay for software and developers need a living

Firms aggregate user demand and hire developers

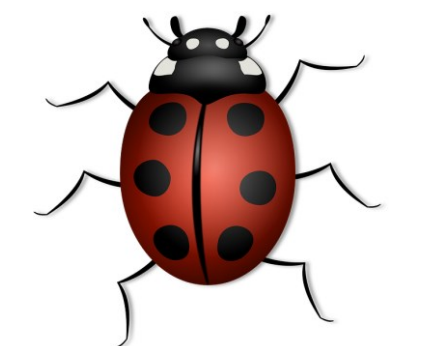
Missing market mechanism in peer production



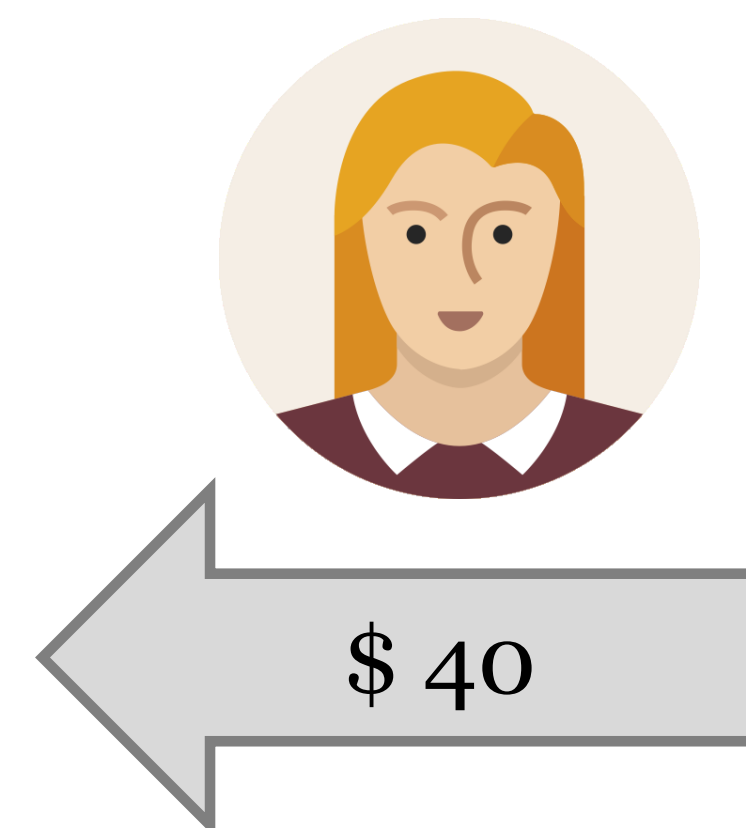
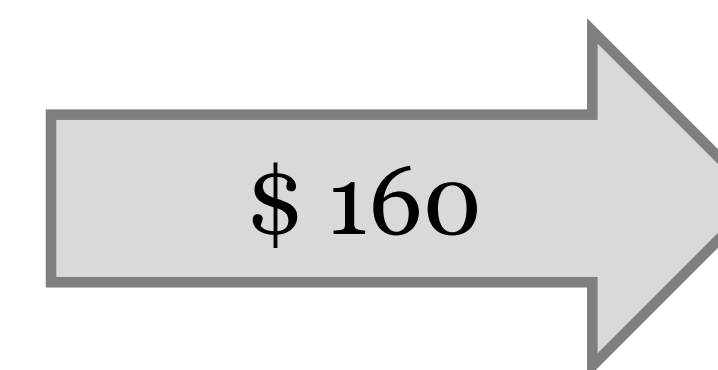
Example



User Adam finds and files bug: #1337



Adam offers to pay \$160 if bug is fixed in 2 weeks



\$40



Developer Beth accepts offer and agrees to pay \$40 if bug is unfixed in 2 weeks

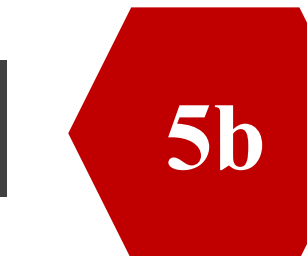


Next two weeks

- Adam is waiting
- Beth is developing



Outcome: UNFIXED



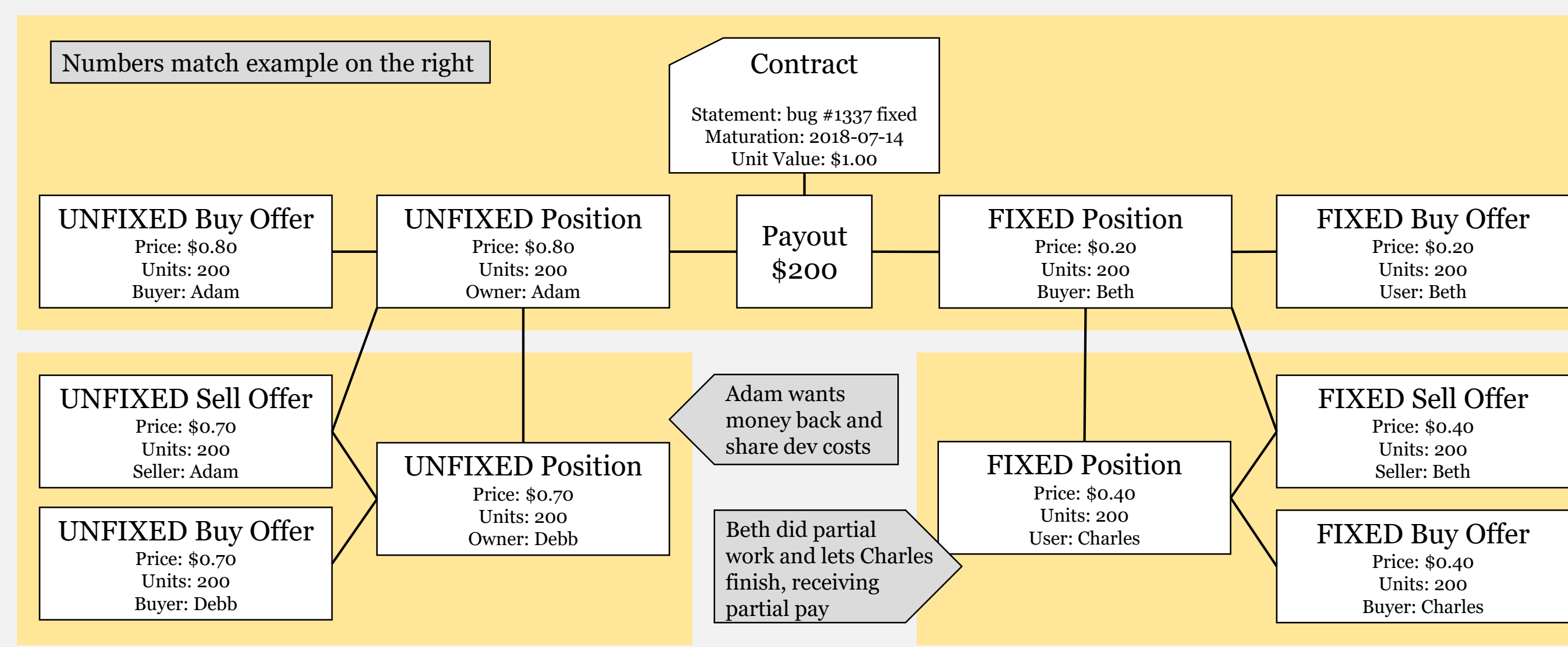
Outcome: FIXED

- Adam receives \$200 payout
- Beth receives nothing

- Beth receives \$200 payout
- Adam has his bug fixed



Figure: Contract design



Futures Market Design Features

- *Dominant Assurance Contract*: Earn money on unfixed bug
- *Dependencies*: Coordinate development tasks
- *Partial Work*: Incentivize information sharing
- *Multiple Contracts*: Send price signals of importance
- *Decoupling Work*: Payment is unrelated to doing work

Value Hypotheses

- Reduce Cost of Bug
 - Transaction costs reduction
- Reduce Time to Fix
 - Immediate price signal to initiate work
- Reduce Recruitment Cost
 - Establish informal relationships and build trust

Ongoing Work

- *Confirm* value hypotheses
- *Experiments* to understand incentives
- *Simulation* to test design features in agent based model
- *Theory development* to base our design in research
- *Prototype* development to demonstrate and test design
- *Monetization* to drive adoption and sustain development