Flex-E-Markets
Think, Deploy Markets: Whenever and Wherever

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U of Utah, U of Melbourne

Park City, June 20, 2016
Outline

- Background
- How-To
- Q&A
- Going Forward
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1. Background
2. How-To
3. Q&A
4. Going Forward
History

- 1980’s: MUDA
- 1990’s: MARKETSCAPE
- 2003-4: eTRADELAB
- 2008: jMARKETS
- 2016: Flex-E-Markets
Existing Usages

Research
- Lucas in the Lab (JF), Asymmetric Reasoning + Asset Pricing (JPE), CAPM in the Lab (Econometrica), Ambiguity Aversion + Asset Pricing (RFS), etc.

Classroom
- From induced Demand-Supply markets over CAPM to dynamic asset pricing
- Market institutions; dark/lit markets, information acquisition and aggregation

Fun
- Utah Winter Finance Conference Prediction Markets
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UWFC Prediction Markets:

- 10 A-D securities: $1 if paper wins $0 otherwise
- Heterogeneous endowments but no aggregate risk
- Continuous limit order open book market
Software as a Service (SaaS)

- No downloading necessary–internet based– Freely available for research and teaching
- Each account can have multiple managers (the experimenters) and users (traders)
- Security privileges granted by account managers
- Users can be from a subject pool (systems like ORSEE or SONA), or classroom rosters, or any email list

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Step-by-step

Step 0: Sign Up (only once)
- Go to https://flex-e-markets.com and sign up
  - Account: CASSEL; CASSEL will have many users, both managers and traders
  - E-mail: Each user will sign in with their email and password
- Once signed up, you can access the software functionality
Step-by-step

**Step 1: Sign In**
- Account: CASSEL
- Email: WiMM@wfa.edu
- Password: wimm
Step-by-step

Step 3: Create a Marketplace and Invite Traders

CASSEL
California Social Science Experimental Laboratory

- Finance 3050 (Instructor E. Asparouhova): Session 1
  This is our first in-class trading session. It is simple and fun! There are 3 states of the world: X, Y, Z.

- Finance 6410 (Instructor E. Asparouhova): Session 3
  Credit market where you can claim your debt repayment either with the issuer or sell in the secondary market.

- Dark Markets (Pl E. Asparouhova): Session 6
  You will have private information about the value of the stock—and you will be able to trade on it.
Step-by-step

Step 3: Create a Marketplace and Invite Traders

- Each market—private or public
- Each trader—buyer, seller, or both
- Individual endowments
- Algorithmic trading privileges
### Flexexchange: Add Marketplace

**Marketplace name:**
WFA dessert exchange

**Marketplace description:**
What if you liked your dessert too much or did not like it at all?

- **Access:** Exclusive
- **Chat:** Off
- **Combination orders:** Allowed

### Markets

**Market #1**

<table>
<thead>
<tr>
<th>Name</th>
<th>Cake</th>
</tr>
</thead>
</table>

**Description**

**Item**

<table>
<thead>
<tr>
<th>Minimum price in cents</th>
<th>Maximum price in cents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1000</td>
</tr>
</tbody>
</table>

**Tick size in cents**

25

- **Order visibility:** Private market

### Initial Allocation

- **Cash**
  - 500

- **Market #1 Cake**
  - **Buy**
  - **Sell**

<table>
<thead>
<tr>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

### Traders

- **No Traders Loaded**

[links to load existing traders or import new traders]
Step-by-step

Step 4: Run a Marketplace

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Step-by-step

**Step 4: Run a Marketplace**

- Continuous market
- Call market (incl. intermittent call market)
- Auction
Step-by-step

Step 4: Run a Marketplace

This is our first in-class trading session. It is simple and fun! There are 3 states of the world: X, Y, Z.

Bond (all public markets)
Pays $50 in X, Y, and Z. (0 - 1000 @ 25)

<table>
<thead>
<tr>
<th>TIME</th>
<th>UNITS</th>
<th>PRICE</th>
<th>UNITS</th>
<th>TIME</th>
<th>UNITS</th>
<th>PRICE</th>
</tr>
</thead>
</table>

Price
300

Submit

Stock B
Pays $50 if X, $50 if Y and $80 if Z. (0 - 1000 @ 25)

<table>
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<tr>
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<th>UNITS</th>
<th>PRICE</th>
<th>UNITS</th>
<th>TIME</th>
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<th>PRICE</th>
</tr>
</thead>
</table>

Units
50

flexemarkets
Step-by-step

Step 5: Export your data
Test Trader Accounts

- Account: CASSEL
- Email: test1@test.com; test2@test.com, etc.
- Password: password
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Next Steps

- Move from closed Alpha to open Beta version
- Encourage more users—research and teaching—it is free for academics
Thank you