

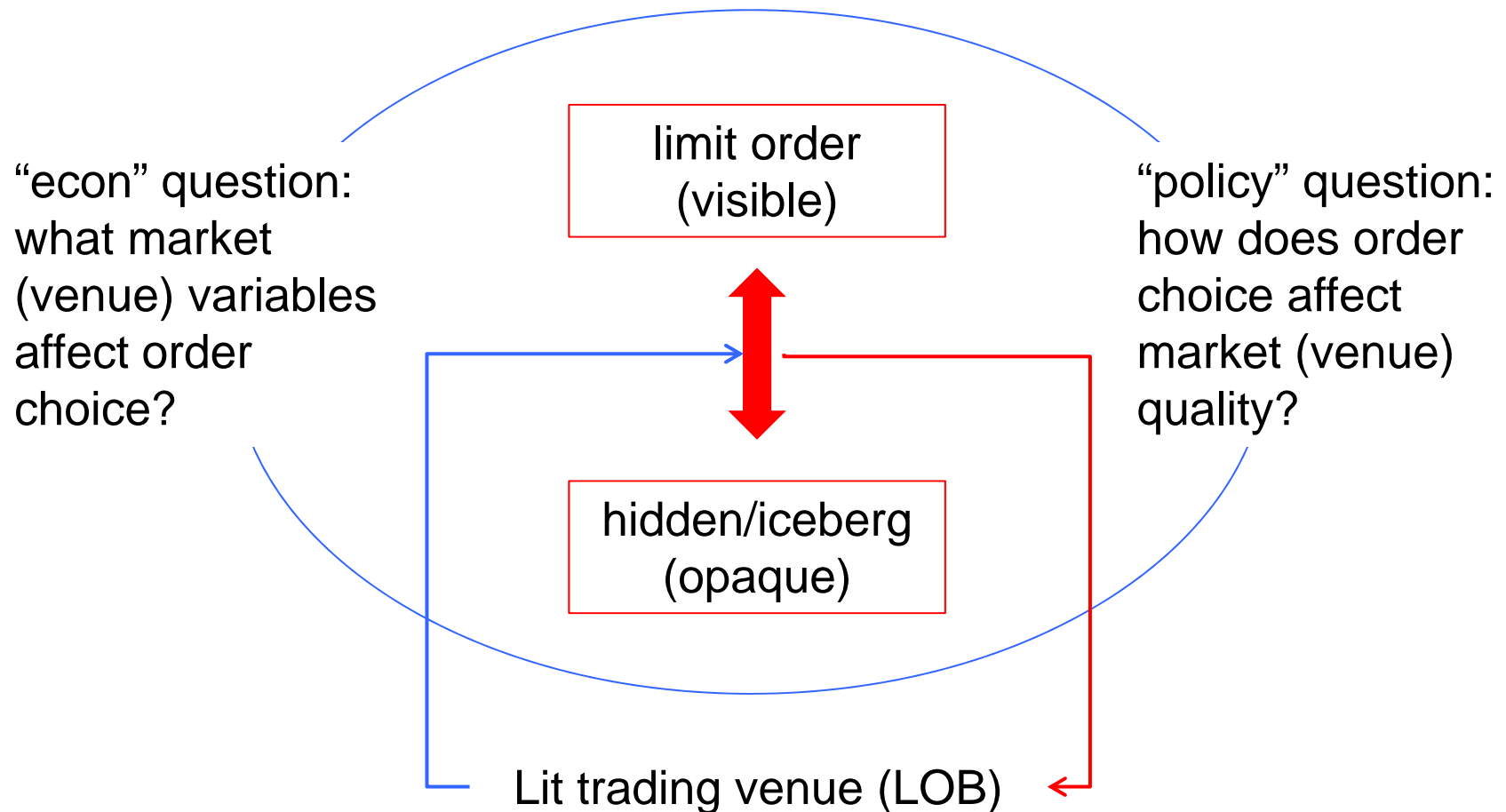
Discussion of «Two shades of opacity: hidden orders versus dark trading» by Hans Degryse, Geoffrey Tombeur, Gunther Wuyts

Paolo Colla - Bocconi University

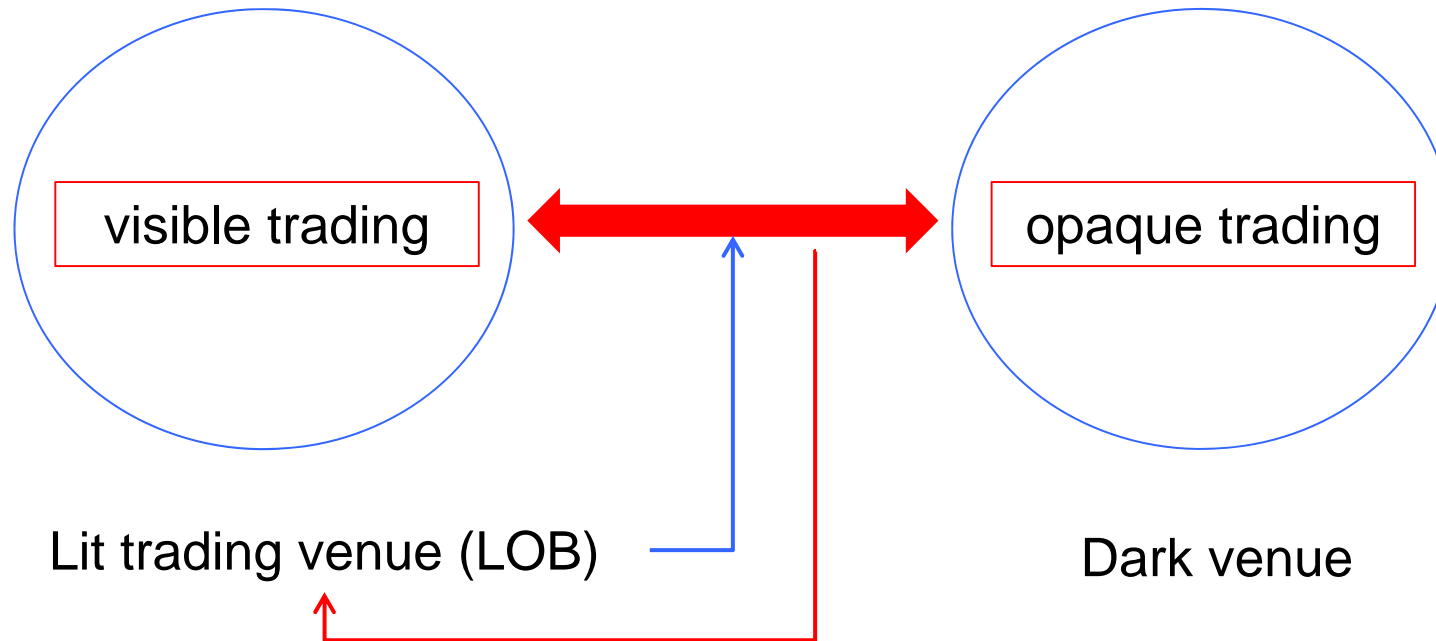
The Development of Securities Markets. Trends, Risks and Policies

February 27, 2015

Where the paper fits in: Opaque trading/1



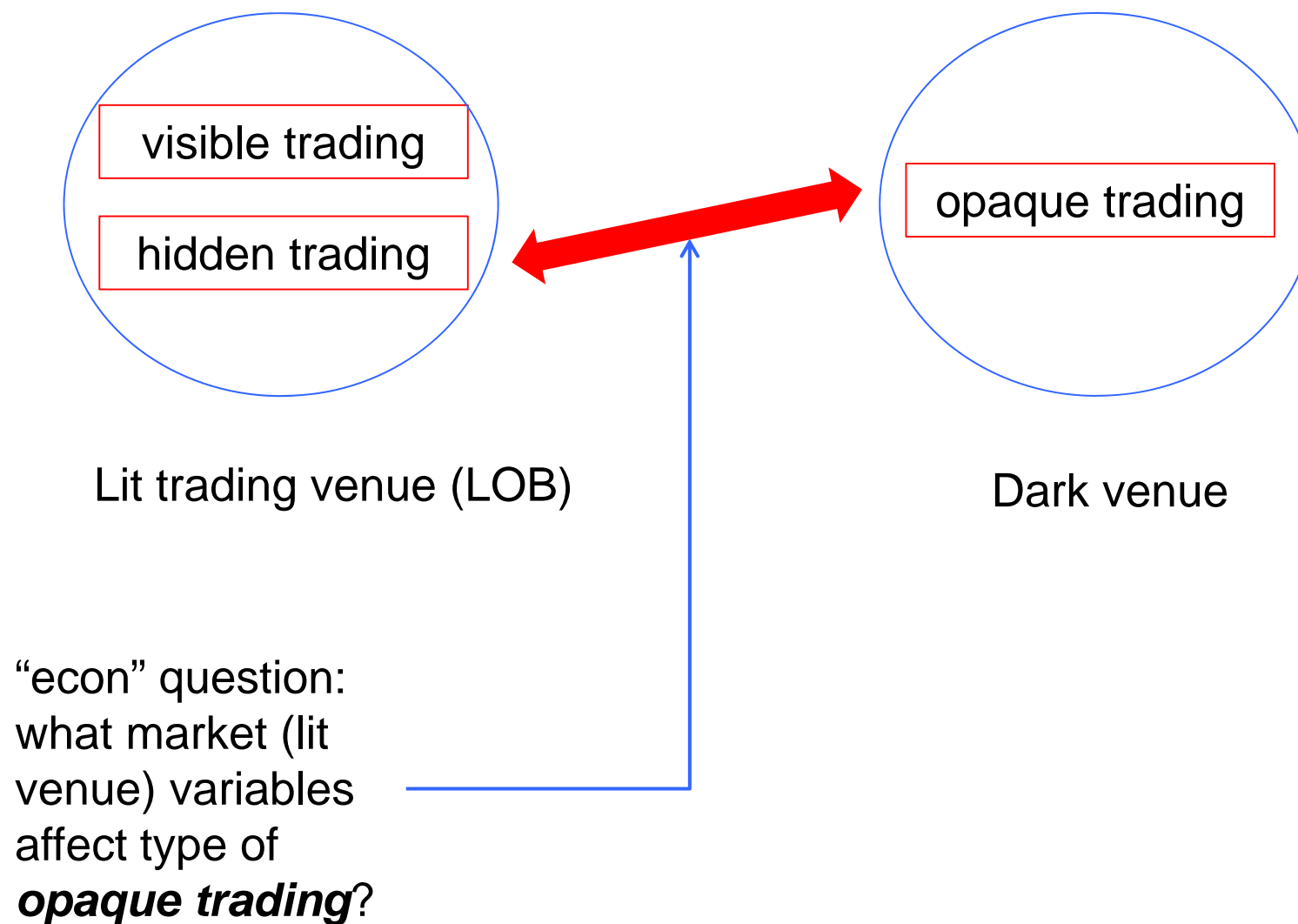
Where the paper fits in: Opaque trading/2



“econ” question:
what market (*lit*
venue) variables
affect venue
(=*order*) choice?







“policy” question:
how does venue
(=*order*) choice
affect market (*lit*
venue) quality?

This paper: Integrated approach to opaque trading



Results/1: determinants of hidden trading

Hidden trading:

- ↑ Volume (trading interest: tot, lit, venue): ↑mktable orders
↑exec prob ↑hidden 
- ↑(visible) Depth: ↓exec prob ↓hidden 
- ↑ Spread:
 - » ↑protection against predation ↑hidden 
 - » ↓mktable orders ↓exec prob ↓ hidden 
- ↑ Algo trading: ↑liquidity provision ↓exec prob ↓hidden (or front-running large orders) 
- ↑ SORT: ↑competition among venues ↑liquidity provision ↓exec prob ↓hidden 

Results/2: determinants of dark trading

Dark trading:

- ↑ Volume (trading interest: tot):
 - » ↑exec prob ↑dark
 - » ↑demand for immediacy ↓dark
- ↑(visible) Depth: ↓hidden ↑dark
- ↑ Spread: ↓midquote execution ↓dark
- ↑ Algo trading: (a bit unclear*...) ↓dark
- ↑ SORT: ↑participation in all venues ↑dark



Results/3: complements or substitutes?

- Opaque trading: similarities
 - » Reduced exposure *but* lower execution probability (passive strategies)
- Opaque trading: differences
 - » Hidden orders interact with more aggressive orders (marketable orders) and are thus *more easily detectable*
 - » Dark orders interact with dark orders and are thus *harder to detect*
- Simultaneous equation analysis confirms that dark trading is a better substitute for hidden trading than the other way around.

Comments/1

- Empirical strategy: pooled OLS

$$\%(\text{Hid or Dark}V_{i,t,(l)}) = \gamma X_{i,t,(l)} + \lambda Z_{i,t,(l)} + \varepsilon_{i,t,(l)}$$

where X are instrumented (with other stocks' counterparts) and Z are exogenous.

- Is algo trading (venue specific, for $\text{Hid}_{i,t,(l)}$, or consolidated across lit, for $\text{Hid}_{i,t,\text{lit}}$ and $\text{Hid}_{i,t,\text{Tot}}$) exogenous?

“some AT strategies may be designed to front-run large orders or to exploit their orders in some other way...if large orders fear the presence of ATs they may refrain from trading opaquely”

- Direction of causality?
- Admittedly, as AT is measured for lit, more of a concern for *Hid* than for *Dark*

Comments/2

- * “insofar algo trading is perceived as toxic and when dark venues are perceived to be crowded with toxic algos...”...BUT algo measure is by construction for lit market(s). Same holds true for SORT.
- The argument(s) for dependence of *DarkV* on AT and SORT hinge on correlation between AT on lit and dark venues, as well as SORT participating to all venues (lit and dark) alike.
- Is this the case?
- Indicators of SORT on dark venues: cheap pricing (not measured here) and/or small average execution size (from des stats this does not seem to be the case, 57k on dark against 10k on lit).

Comments/3

- Liquidity measures: Depth and Spread are taken to proxy for willingness (of some traders) to provide liquidity.
- However, these can proxy for adverse selection as well. For instance, Zhu(14) predicts that more informed traders switch to dark pool when spreads are high (and this may in turn increase dark volume share, contrary to hypothesis here). Nimalendran and Ray (13, JFM) document that a trading strategy that follows the direction of dark-pool orders is profitable when spreads on lit venue are wide.
- Adopt a measure of adverse selection (PIN? Trading imbalances?) to single out adverse selection from liquidity provision.

Conclusions

- Investigate *both* types of opaque trading by means of a very rich and detailed high-frequency dataset that:
 - » (very long!) time-series dimension: 738 trading days (Nov 07-Sept 10)
 - » Cross-sectional dimension: 27 large-cap Dutch stocks
 - » Includes various lit venues (Euronext, main, and alternative venues, Chi-X, Turquoise, and BATS): detailed limit order book information and (executed) hidden orders
 - » Includes various dark pools (MiFID reported trades): dark trading
- No (or very little) theory to guide predictions. Very brave!