

# Discussion: The Market for OTC Derivatives

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# The story

- ▶ Banks heterogeneously exposed to an aggregate risk factor.
- ▶ Each bank has several trading desks, that randomly meet desks of other banks and trade CDSs.
- ▶ Different desks of the same bank buy or sell insurance depending on whether their counterpart is less or more exposed to the risk factor  
⇒ price dispersion, **gross volume**  $\neq$  **net volume**.
- ▶ Banks with balanced exposure **naturally emerge as dealers**.
- ▶ Positive analysis: the model matches **stylized facts** - links between gross volume, net volume, bank size.
- ▶ Normative analysis: **too many intermediaries enter** (business stealing), too few “customers” enter (positive externality).
- ▶ Elegant model based on general assumptions and first principles.

# What is a dealer?

- ▶ A bank that happens to have  $\omega \simeq 1/2$ .
- ▶ Imagine the game is repeated:
  - ▶ If we draw a new  $\omega$  in each period, **is this bank really a dealer?**
  - ▶ Otherwise if  $\omega$  stays the same, **why random matching?**
- ▶ Important feature of a dealer is that **he can easily be contacted**, different contact probability as in Duffie, Garleanu, Pedersen 2005.
- ▶ Dealers or **“opportunistic” intermediaries?**
- ▶ However: the authors' assumption that dealers are like other banks plays against their results, and avoids assuming ex ante that dealers are special.
- ▶ More generally: entry cost should be paid once for many periods with different realizations of  $\omega$ . Reduced form for a model where banks have different distributions for their  $\omega$ ?

# What is a bank?

- ▶ A coalition of traders  $\Rightarrow$  modeling innovation.
- ▶ All traders of a bank have the same risk exposure  $\omega$ . Paper sometimes a bit confusing ( $\omega$ -trader /  $\omega$ -bank).
- ▶ Underlying assumption: the bank's traders can trade with each other and thus equalize their positions before entering the OTC market.
- ▶ Is it clear that they should all have the same limit  $k$ ? Presumably, desks with a high  $k$  are those that can enter in large exposures  $\omega$  AND write many CDS contracts. The trading limit could even take into account that risk is hedged.
- ▶ Not key, but clarifying the status of the assumption would be helpful: [nice modeling device](#), or [realism](#)? If the latter, more discussion would be interesting.

- ▶ Too many dealers, not enough customers enter.
- ▶ Implies that the ratio gross volume/net volume is indeed excessive?
- ▶ Links with earlier works in the labor literature?
- ▶ **Policy tools to solve this problem?** An FTT for instance?
- ▶ **Multiple equilibria** seem quite natural: entry by the  $\omega \simeq 0$  and entry by the  $\omega \simeq 1$  are complements, entry by types  $\omega \simeq 1/2$  are substitutes. Maybe additional implications?

# Going further

- ▶ Nice model deriving a **rich OTC market for derivatives from first principles**.
- ▶ Could future papers extend the analysis to speak more to current policy debates? Counterparty risk, price opacity for instance.
- ▶ Dodd-Frank and Volcker only mentioned at the end (what about EMIR?), **policy implications** of the paper deserve more discussion (for instance impact of  $c$  and  $k$ ).

## Other comments - 1

- ▶ Section 5.3.3. should be emphasized much more, with parts of propositions 14 and 15 in the main text. More discussion of the testable implications (merge with 6.3?).
- ▶  $k < \infty$  mentioned as a fundamental friction p. 1, would be interesting to spend more time on the case without this friction to understand the impact.
- ▶ Why not assume from the beginning that  $D$  is normally distributed? Pb. that  $D \in [0, 1]$ , but one can assume the payoff is  $\omega \times X$ , where  $X \hookrightarrow \mathcal{N}$  instead of focusing on loans and CDS?
- ▶ Further simplification: assume from the beginning that  $n(\omega)$  is U-shaped and symmetric, as is obtained in equilibrium (the Appendix still needs to consider the general case to solve for entry).
- ▶ Could be interesting to discuss more what the assumption of coalitions of traders buys in terms of modeling, methodological contribution.

## Other comments - 2

- ▶ More assumptions could be introduced at the beginning instead of being unraveled along the road.
- ▶ Early introduction of the case  $\omega \in \{0, 1/2, 1\}$  could provide a nice illustration.
- ▶ Consider having a single section comprising the stylized facts and the empirical implications.
- ▶ “Excess volume” compared to Walrasian benchmark, but negative connotation.
- ▶ Graphical illustration of the matching technology?

# Conclusion

- ▶ Important and timely paper.
- ▶ Deep economics.
- ▶ Nice model of OTC derivatives markets, replicates many stylized facts.
- ▶ Interesting normative conclusions, could be more developed and linked to policy debates.
- ▶ Can the model serve as a workhorse in the future? How to introduce counterparty risk for instance?

Thank you!