Derivatives and Systemic Risk

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Stop or go? The reform agenda in OTC derivatives markets - Hau, Hoffman, Langfield

Key points:

- OTC market structure is inefficient
- Inefficient risk allocation (TBTF re-enforced)

Questions:

- Why are you surprised that in an OTC market there is concentration?
- Why the OTC mkt structure is inefficient? What are the alternatives? Why they has not been implemented?
- Why there is an inefficient risk allocation? It would be better if the central dealers would be hedge funds, insurances or pension funds?

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What regulators should do?:

- Impose that all trades are on exchanges?
- Impose more transparency? Would it be enough?

How peculiar is the FX market?

- How different is the mkt microstructure of the exchange FX mkt?
- How different is the distribution of profits/rents?
- How costly is to access to the exchanges?
- Why technology is not helping to reduce access barriers?
- Do we really should care about client inexperience? Is this relevant for systemic risk?

McLaughlin - LCH

- “Without access to the Central Bank in the relevant currency, this results in increased unsecured deposits at commercial banks during a stress event”

Issue: the legal status/regulation and supervision of CCP!

CCP Recovery and Resolution – Many open issues

- **Who is the Resolution Authority for a CCP? What is relationship to the CCP Regulator?**
- **When should the CCP be put into Resolution?**

Predatory" Margins and the Regulation and Supervision of Central Counterparty Clearing Houses (CCPs) (Krahnen-Pelizzon, 2016) SAFE white paper n. 40

Regulation and Supervision of Central Counterparty Clearing Houses (CCPs)

- In line with its robust-but-fragile property, a CCP triggers a systemic risk event with small but positive probability

- In case of a systemic CCP default, a government rescue operation (bailout) is not only unavoidable, it is also efficient.

- The market structure of CCP services may itself affect systemic risk. In particular, if there is competition (undermargining by aggressive CCPs), and transparency about individual exposures is incomplete (undermargining).

Regulation and Supervision of Central Counterparty Clearing Houses (CCPs)

- Efficient design of CCP regulation and supervision:
  - the supervisory practice (and their standards) should be the same for all CCPs, irrespective of their location, in order to avoid a race to the bottom of regulatory standards.
  - supervisory standards should be uniformly applied without regard to local champions
- Regulation and supervision should be: centralized in one agency (**single supervisory agency**) covering the entire "relevant market":
  - including all (national) economies in which CCP counterparties are domiciled.
  - the set of countries that would ultimately face the bailout bill should a systemic risk event ever happen

Regulation and Supervision of Central Counterparty Clearing Houses (CCPs), Krahnen-Pelizzon 2016

Bail-in rules and total loss-absorbing capacity requirements for CCPs are of limited importance:

- TLAC-compliant strategy will not work well for a CCP. The main reason is that a CCP, unlike a bank, is almost by construction too big and too interconnected to fail.
- Its robust-yet-fragile nature, producing a two-point (bimodal) loss distribution, is hard to reconcile with the on-balance-sheet loss absorption implied by a bail-in procedure.
- The guarantee has to be issued by those states that are home to the clients of the CCP, not necessarily the home of the CCP itself.
- An explicit guarantee will stabilize the CCP ex-ante, but it may also induce moral hazard and adverse selection risks.
- The consolidated supervisor, overseeing all CCPs operating in Europe (including the UK), would have to rule out predatory margining, and other sources of systemic externalities

Analysing credit derivatives markets: Flow of risk, notional excess and portfolio compression, Peltonen

- Great database! Every researcher would like to work with these data (even still having a partial view…)

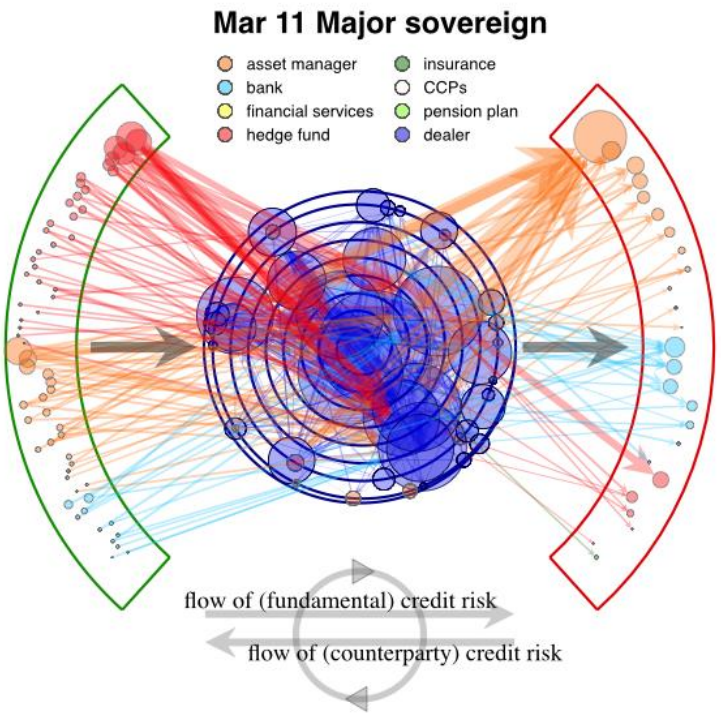
Focus:

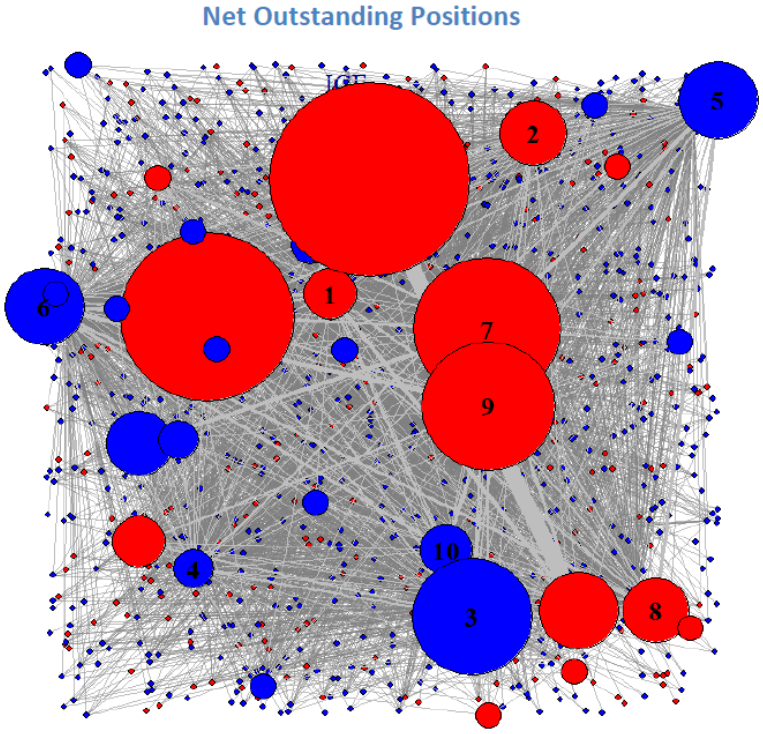
- **Flow of risk**
- **wrong way risk**
- **Portfolio compression**

Analysing credit derivatives markets: Flow of risk, notional excess and portfolio compression, Peltonen

Flow of risk:

- CDS mkt is highly concentrated on few central dealers (same results for the DTCC-US see Getmansky, Girardi and Lewis, JAI 2016
- Concentration of ultimate risk buyers: hedge funds and asset managers: so what?





blue: seller, red: buyer

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wrong way risk:

- **Not for sovereign risk**
- **What about financial references? From GGL2016:**

Panel B. Network of buyer bilateral transactions across corporate financials reference entities

	1	2	3	4	5	6	7	8	9	10	Other Dealers	Non-Dealers	Centrally Cleared	Grand Total	HHI Index	Entropy Index
1		1,918	7,063	3,809	4,731	9,994	8,122	6,341	7,692	2,910	4,647	13,384	8,637	79,247	0.10	0.14
2	2,010		4,147	2,447	1,620	6,270	8,579	4,021	4,738	2,036	1,946	4,695	5,086	47,596	0.10	0.21
3	7,545	5,038		5,287	6,915	20,548	11,768	5,768	6,173	7,844	7,368	12,177	9,605	106,034	0.10	0.29
4	5,794	2,955	4,188		4,164	7,195	6,899	5,452	5,851	3,611	4,762	9,726	9,648	70,244	0.09	0.31
5	5,522	2,315	7,339	2,998		9,408	9,352	7,950	3,857	2,539	2,852	9,985	9,209	73,326	0.10	0.29
6	10,394	7,482	20,598	7,187	10,702		10,617	10,023	6,753	10,267	10,880	13,355	14,719	132,979	0.09	0.31
7	10,674	8,415	13,655	8,607	11,727	15,911		7,903	6,342	6,924	11,108	979	10,490	112,734	0.10	0.35
8	6,676	5,087	5,956	4,552	5,956	10,281	6,645		5,331	5,806	9,097	9,215	11,039	85,642	0.09	0.31
9	7,537		5,265	7,577	3,739	6,546	4,875	5,538		6,295	11,908	6,253	7,652	78,166	0.09	0.35
10	2,803	2,297	9,032	4,100	2,840	10,858	8,104	6,445	7,423		5,006	3,804	7,209	69,922	0.10	0.19
Other Dealers	5,714	1,743	7,051	3,923	3,605	9,843	10,220	8,653	11,004	4,493	2,195	4,230	12,937	85,609	0.10	0.27
Non-Dealers	16,033	5,724	19,467	9,110	13,156	28,905	1,627	13,373	13,717	6,451	5,578	241	-	133,383	0.12	0.39
Centrally Cleared	9,088	4,420	9,381	7,619	8,904	15,385	11,244	12,220	9,086	7,975	11,433	-		106,756	0.10	0.32
Total	89,790	52,374	113,141	67,217	78,058	151,145	98,053	93,689	87,967	67,150	88,780	88,044	106,231	1,181,638	**0.08**	**0.30**
Average															**0.10**	**0.29**

Analysing credit derivatives markets: Flow of risk, notional excess and portfolio compression, Peltonen

Portfolio compression

- Depending on the level of aggregation and algorithm we find that roughly **20%-50%** of (single name) notional can be reduced. Naturally, compression is even more (relatively) efficient when several reference entities and maturities are aggregated

- **What would you get with clearance?**

To clear or not to clear? Bellia, Girardi, Pelizzon 2016

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To clear or not to clear? Bellia, Girardi, Pelizzon 2016

- DTCC-SEC data: Among CDS contracts that qualify for clearing, most are in fact cleared.
- The decision to clear balances the cost of CCP margin against the additional capital required for un-cleared transactions.
- Dealers clear contracts that are
  - safer and more liquid
  - tend to flatten exposures to the CCP
  - made between higher-risk traders

- Less than half of dealer-to-dealer CDS trades' notional value qualify for clearing.

  ➔ In the authors' view, ICE would need to change eligibility requirements if CDS contracts are to be predominantly cleared.

Thank you!

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