

Understanding the Scientific Paper *The network of global corporate control* by Vitali, Glattfelder and Battiston

by Dr. Katherine Horton

Abstract

The paper *The network of global corporate control*¹ by Stefania Vitali, James B. Glattfelder, and Stefano Battiston is one of the most important works identifying the cartel at the heart of our economies. In promoting the paper publicly, the feedback from several highly qualified investigators was that the paper is hard to understand for those outside systems analysis and mathematical communities due to its use of jargon. This is an attempt to translate it into plain English to open it up to a broad readership as the content of that paper affects us all.

In Plain English

When scientists are faced with a complex article, most read the Abstract and the Conclusions first, ignore most of the details in the middle and just look at the diagrams. Only after getting an understanding of the overall core points would they delve into the details – if at all.

Applying that method to this article, the key passages are translated into easily understandable colloquial phrases below. The section headings in bold face (Abstract, Results etc.) refer to those in the original paper. Comments by this author (Dr. Horton) are in square brackets.

Abstract: *"We find that transnational corporations form a giant bow-tie structure and that a large portion of control flows to a small tightly-knit core of financial institutions. This core can be seen as an economic "super-entity" that raises new important issues both for researchers and policy makers."*

Plain English: **The authors can prove that the bulk of international companies are controlled by a very small number of banks and insurance companies. It's one mega-cartel that has implications for us all.**

Results: *"We start from a list of 43060 transnational corporations identified according to the OECD definition, taken from a sample of about 30 million economic actors contained in the Orbis 2007 database (see SI Appendix, Sec. 2). We then apply a recursive search (Fig. S1 and SI Appendix, Sec. 2) which singles out, for the first time to our knowledge, the network of all the ownership pathways originating from and pointing to transnational corporations (Fig. S2)."*

Plain English: **They looked at over 43'000 international companies [which are the largest ones as they are bigger than those that are national only], and for the first time in history, this paper shows who really owns the lot.**

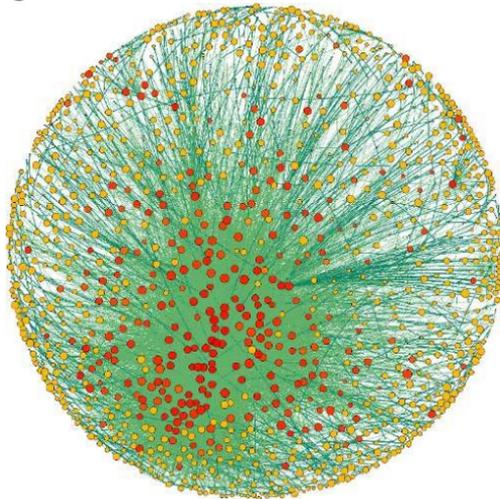
Network Topology: *"The core is also very densely connected, with members having, on average, ties to 20 other members (Fig. 2 C, D). As a result, about 3/4 of the ownership of firms in the core remains in the hands of firms of the core itself. In other words, this is a tightly-knit group of corporations that cumulatively hold the majority share of each other. Notice that the cross-country*

¹ Available on Cornell University's arxiv.org: <https://arxiv.org/abs/1107.5728> PDF: <https://arxiv.org/pdf/1107.5728.pdf>

analysis of [11] found that only a few of the national ownership networks are bow-ties, and, importantly, for the Anglo-Saxon countries, the main strongly connected components are big compared to the network size."

Plain English: The companies that hold the cartel keep to themselves and exclude the influence of others by owning each other in turn. Previously, this has mostly been seen in England and its colonies [such as the US] where one found national mega-cartels that dominate the national economy.

C



D

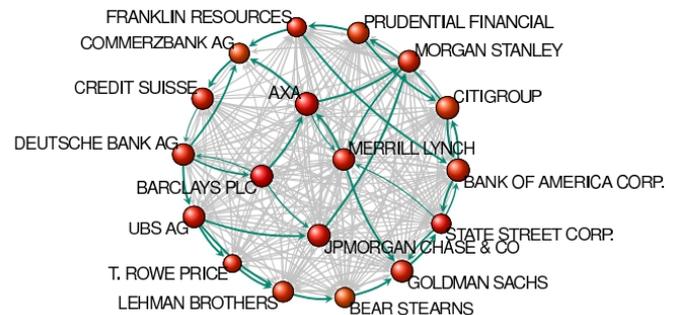


Illustration 1: Super-entity or super connected core of the Network of Global Corporate Control. Source: Page 4 of the scientific paper: <https://arxiv.org/pdf/1107.5728.pdf>

Concentration of Control: "Network control is much more unequally distributed than wealth. In particular, the top ranked actors hold a control ten times bigger than what could be expected based on their wealth."

Plain English: The cartel holders hide by carefully avoiding grabbing the profits directly, instead they grab the control of the companies. By doing this, they can punch above their weight and hold ten times as much power as one would expect based on their shares of the profit. [So why would companies that have the monetary power over a corporation give up control? Isn't this both a direct indication of companies being **PAID OFF** (aka. Bribed) by the key cartel holders and **MONEY LAUNDERING** being undertaken as cartel money is diverted into other companies to throw investigators off the track?]

Discussion: "Despite its small size, the core holds collectively a large fraction of the total network control. In detail, nearly 4/10 of the control over the economic value of TNCs in the world is held, via a complicated web of ownership relations, by a group of 147 TNCs in the core, which has almost full control over itself. The top holders within the core can thus be thought of as an economic "super-entity" in the global network of corporations. A relevant additional fact at this point is that 3/4 of the core are financial intermediaries."

Plain English: The cartel, made up of 147 international companies, controls 40% of the profit. They own each other in turn so that no one can interfere or grab a slice of their pie. Three quarters of the cartel members are, [unsurprisingly] banks and insurance companies.

Page 7: *"This remarkable finding raises at least two questions that are fundamental to the understanding of the functioning of the global economy. Firstly, what are the implication for global financial stability? It is known that financial institutions establish financial contracts, such as lending or credit derivatives, with several other institutions. This allows them to diversify risk, but, at the same time, it also exposes them to contagion [15]. Unfortunately, information on these contracts is usually not disclosed due to strategic reasons. However, in various countries, the existence of such financial ties is correlated with the existence of ownership relations [23]. Thus, in the hypothesis that the structure of the ownership network is a good proxy for that of the financial network, this implies that the global financial network is also very intricate. Recent works have shown that when a financial network is very densely connected it is prone to systemic risk [24, 16]. Indeed, while in good times the network is seemingly robust, in bad times firms go into distress simultaneously. This knife-edge property [25, 26] was witnessed during the recent financial turmoil."*

Plain English: What is worrying is that these companies all inter-depend on each other, so they can nose-dive simultaneously. [The authors got their logic seriously bottom-up. It is precisely that close interrelation that allows the cartel to tank the entire economy of a country on purpose in order to blackmail its leaders and its population. The "knife-edge property" is in fact the very knife-edge that is held to the throat of nations. So the authors stumbled over the murder weapon of choice of the mafia and don't even recognise it as such.]

Page 8: *"Secondly, what are the implications for market competition? Since many TNCs in the core have overlapping domains of activity, the fact that they are connected by ownership relations could 7/36 S. Vitali, J.B. Glattfelder, and S. Battiston: The network of global corporate control facilitate the formation of blocs, which would hamper market competition [14]. Remarkably, the existence of such a core in the global market was never documented before and thus, so far, no scientific study demonstrates or excludes that this international "super-entity" has ever acted as a bloc. However, some examples suggest that this is not an unlikely scenario. For instance, previous studies have shown how even small cross-shareholding structures, at a national level, can affect market competition in sectors such as airline, automobile and steel, as well as the financial one [14, 13]. At the same time, antitrust institutions around the world (e.g., the UK Office of Fair Trade) closely monitor complex ownership structures within their national borders. The fact that international data sets as well as methods to handle large networks became available only very recently, may explain how this finding could go unnoticed for so long."*

Plain English: From previous smaller scale studies we know that even a small cartel can have a devastating impact on an economy. Despite the fact that regulators around the world, like the UK Office of Fair Trading have the tools [and heck knows the money too] to take care of this, we have no idea why they have never dealt with this cartel. [Because they're all bought off and have paedo control files, you muppets!]

Page 8: *"The second issue concerns the control that financial institutions effectively exert. According to some theoretical arguments, in general, financial institutions do not invest in equity shares in order to exert control. However, there is also empirical evidence of the opposite [23, SI Appendix, Sec. 8.1]. Our results show that, globally, top holders are at least in the position to exert considerable control, either formally (e.g., voting in shareholder and board meetings) or via informal negotiations."*

Plain English: Some academic dimwits said that banks only hold shares and it'd never occur to them to grab power [Bahahaha], but there's proof that ain't true. These results show they can rule the world via shares, board decisions or covertly. [Or by organising a Bilderberg meeting, drugging executives and filming them having gay sex and raping children.]

Page 8: "We conjecture that it may be present in other types of networks where "rich-get-richer" mechanisms are at work (although a degree preferential-attachment [1] alone does not produce a bow-tie). However, the fact that the core is so densely connected could be seen as a generalization of the "rich-club phenomenon" with control in the role of degree [28, 3, SI Appendix, Sec. 8.2]. These related open issues could be possibly understood by introducing control in a "fitness model" [29] of network evolution."

Plain English: You can expect to see these cartel set-ups everywhere in the world and all around you. In a sense, we have just shown something we all kinda knew all along but now we can pin it down precisely and identify the colluding bastards. We could do a lot more work on this if we get the funding for it. [How about you use these results to file charges against the criminals with the regulators and the national courts?]

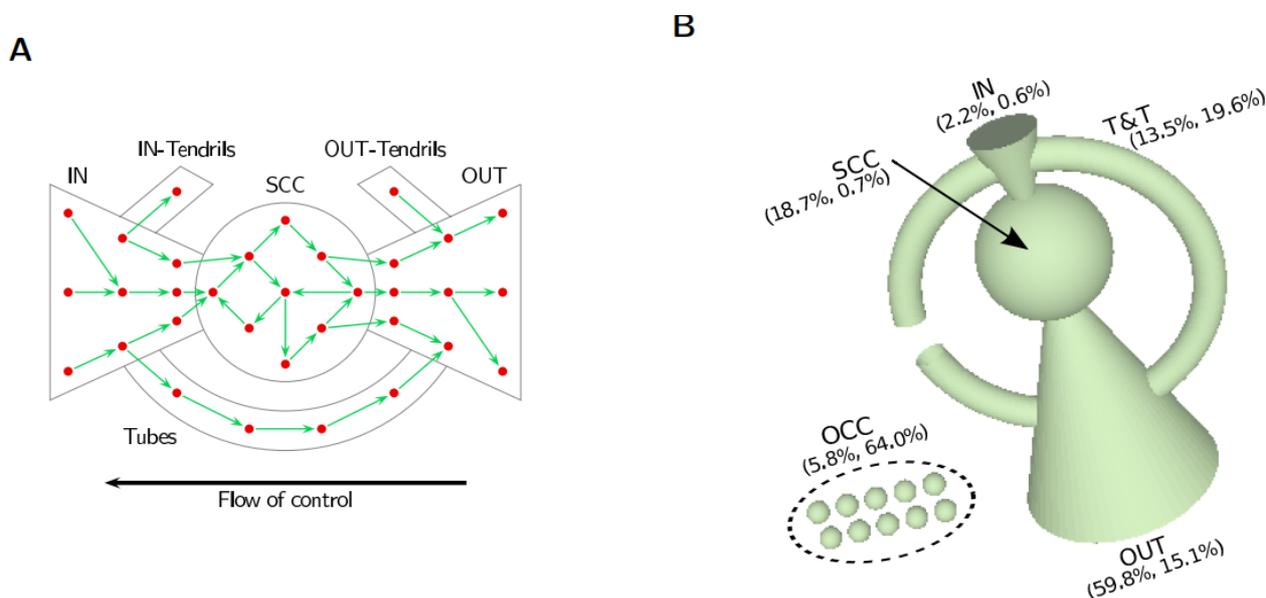


Illustration 2: Bow structure of the Network of Global Corporate Control. SCC denotes the strongly connected core exerting central control. Source: P.4 of paper <https://arxiv.org/pdf/1107.5728.pdf>

Conclusions

Plain English has a crucial role in our society in that it allows us to exchange vital information that is crucial for our survival in a quick manner, cutting across levels of society and fields of expertise. As such, it is absolutely vital to absorb and spread the contents of that paper in its simplest form.