

Central counterparties: The role of multilateralism and monopoly

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It is a great pleasure for me to speak tonight at this joint conference of the European Central Bank (ECB) and the Federal Reserve Bank of Chicago (Chicago Fed) on central counterparty (CCP) issues. Central counterparties were the topic of the very first workshop in the field of payment and settlement issues that I organized as a member of the Executive Board of the ECB. I am also happy to attend a conference co-organized by the ECB and the Chicago Fed, since it represents an example of multilateral cooperation between monopolistic institutions!

Multilateralism and monopoly are indeed the two issues I would like to deal with tonight. These two issues are essential in order to understand central banks' concerns in the field of central counterparty issues; they are also very general issues, going well beyond payment and settlement issues and even beyond economics. Their wide spectrum makes them suitable for a dinner speech, where the topic should be both related to the specific occasion and of a general nature. I will take multilateralism and natural monopoly one by one, then show how they are interrelated, and finally argue that it is because of their presence in clearing and settlement that the involvement of public authorities is indispensable if the "hot" issue of integrating the infrastructure is to be properly addressed.

Multilateralism

Multilateralism is a method or an approach that involves a relationship between two parties with a third party coming into play. This third party is the collectivity itself, the group, the universe of all parties. As a result, it incorporates some notion of "public good" to the extent that breaching a multilateral agreement implies not only "private" and "individual" but also "social" and welfare costs. Indeed, it constitutes the very essence of money as it is the element that makes a difference between a barter economy and a monetary economy.

Multilateralism is thus an essential feature of a payment system, that is, the set of arrangements whereby money performs its function as a medium of exchange. Defined as "a group of independent but interrelated elements that compose a unified whole," the notion of system is thus tantamount to the notion of "multilateralism." Indeed, a malfunction in a payment system has the potential to affect all the participants in the system. Clearly, central counterparties are multilateral entities, since they replace a multiplicity of bilateral relations between sellers and buyers and become the single counterparty of each and every transaction, just as the money is the single counterpart of every exchange in a nonbarter economy.

It is interesting to note that the concept of multilateralism or its converse antonym (unilateralism and/or bilateralism) exist also in fields remote from the one you are debating at this conference. In medicine/biology, the terms *unilateral* and *bilateral* indicate a condition or disease that occurs respectively on only one or both sides of the body. As multilateral does not identify any kind of disease, we are tempted to conclude that a multilateral body is healthier than a unilateral or bilateral one! In political history, multilateralism refers to multiple countries working in concert. In this respect, the first modern experiment in multilateralism occurred in Europe after the Napoleonic Wars, when the great powers redrew the map of Europe at the Congress of Vienna and established the Concert of Europe, as it became known, the practice whereby

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great and lesser powers would meet to resolve issues peacefully. So *multilateralism* becomes rightly, I think, synonymous with peace! In sociology or political science, the term multilateral has been used as an adjective to describe the noun *institution*. What distinguishes the multilateral form from others is that it coordinates behaviors on the basis of generalized principles of conduct.

The economic literature shows that in a world of interdependent economies a number of externalities cut across the individual/national players, requiring commonly agreed solutions. Of course, policies themselves have spillovers and hence naturally raise the possibility of inefficiencies: policymakers or market players who pursue an individual objective and ignore the externalities they impose on others. The literature also tells us that there are two types of externality: spillover externality, in which each of the two players is affected by the behavior of the other, irrespective of his/her own behavior, and network externality, in which damage only materializes if the two players act differently.

A network externality is typically described by the tale of the “battle of the sexes.” As the story goes, a recently married couple discusses whether to go shopping or to a football match. In my version of this story—one which does not affect the reasoning—the wife prefers that they both go to the football match, while the husband prefers that they both go shopping. If they separately go to different places, however, they both are worse off than joining their partner in their least preferred activity. It is intuitive that this tale captures the collective incentives arising from a network externality.

In the field of payment systems the foremost example of network externalities is standardization. If two systems adopt different and incompatible proprietary networks, participants will be penalized, since they cannot reach each other. If only one standard is adopted, everyone will benefit from the possibility of increasing the number of the potential counterparties. However, the costs of adopting the new common solution are unequal. The case of the CCP provides another example. Imagine market participants who are members of more than one CCP. Going to one CCP only can be beneficial for these participants. However, the criteria for selecting the CCP are not obvious, since the costs for the various participants to join one or the other are unequal.

Let’s move to the second type of externality, a spillover externality, which occurs irrespective of the behavior of the player experiencing it. The parable here is the well-known one of the prisoner’s dilemma.¹

Two individuals, who jointly committed a crime, are separately offered the following deal: Defect, give evidence, and implicate your accomplice. If both refuse, neither gets any time in jail. If both defect and implicate the other, both go to jail for a short period of time. If one turns in the other but is not implicated, he gets off while the one implicated goes to jail for a long period of time.

The prisoner’s dilemma also applies to payment and settlement systems; for instance, in the two cases of standards setting and cross-margin requirements. When new standards are introduced, if the central bank decides to adopt them but market participants do not, the latter will de facto be excluded by monetary policy operations, unless central banks agree to deal with old and new standards at the same time. Managing two sets of standards is obviously quite inefficient. And it is equally obvious that only multilateral coordination would lead to a common set of standards. Moving from standards to margin, consider now the case where participants in two CCPs would like to stipulate cross-border arrangements in order to reduce the costs associated with margin requirements. The benefits of cross-margins could be maximized if both CCPs decide to change one of their operational rules. If one CCP makes the change, the general benefits for its participants will be much lower. If both refuse (thinking that by doing so they will penalize the competitor) the arrangement will not be possible. Now, in practice, it is likely that neither CCP will change procedures, fearing that the other won’t do so. The only (Nash) equilibrium would thus be the least favorable for the users.

Natural monopoly

Let me now turn to the second topic, natural monopoly. The concept of natural monopoly has been used and abused in the current European Union (EU) debate on the need for a single CCP. Economic theory helps in identifying natural monopolies but not in understanding why concrete implementation of monopolistic solutions is so difficult.

Economics teaches us that natural monopolies result from the presence of market failures: externalities, public goods, asymmetric information, and increasing returns to scale or decreasing average costs. The concept of natural monopoly generally covers activities requiring a high level of fixed investment to develop the infrastructure. When giving examples of a natural monopoly, reference is often made to the case of network industries, such as telecommunications, transportation (rail and air), and energy markets.

The clearing and settlement industry is a network industry that presents several aspects of a natural monopoly. However, so far, market forces have in practice established a monopolistic infrastructure for reasons that are not clearly explained by economic theory.

The first element involves EU and U.S. experience in the field of securities systems, which seems to demonstrate that the only existing examples of a natural monopoly in this field are those imposed by law! A more in-depth look at the EU and U.S. experience, however, shows that the inability of market forces to establish monopolistic solutions depends on the existence of regulatory barriers limiting competition, and indeed competition is the vehicle leading to a monopoly. For instance, in the euro area, a study by the London School of Economics for the European Commission reported two elements limiting competition in the field of clearing and settlement, namely: 1) legal requirements indicating the clearing and settlement providers to be used, and 2) trading and clearing membership rules imposing the use of a specific service provider.

The second element is the “bundling” between entities providing different services. Integration in the production and provision of complementary services is not undesirable. However, standard economic theory suggests that two (for-profit) entities that offer complementary services should merge, provided that both entities are monopolistic firms.²

However, in reality the complementary services are provided by vertically integrated entities that are not in a monopolistic position in the provision of both services. In this situation, a vertically integrated structure has the potential to undermine the possibility for the investors to freely choose the services they want to use. As a consequence, the incentive for the institutions to provide services as efficient as those offered under competitive conditions would decrease.

The third element concerns the geographical scope of the natural monopoly. Economic literature seems to refer to a stylized situation of one country, one currency, one stylized product, and one market. Reality confronts us with situations where multicurrency systems are in operation in a single country. Monetary unions have created situations where one currency exists in more than one country. In the European Union’s very special situation, you have a single market with 13 currencies and a single economic integrated area with 18 currencies. European experience shows that CCPs for derivatives have expanded their business so as to cover cash products as well, unlike in the U.S. This seems like advocating a “genetically modified” natural monopoly!

Last but not least, technological developments have a strong impact on the definition of the scope of the monopoly. Technology may create the need to remove existing regulations or to create new ones. It affects the scale and scope of economies; allows for the further removal of geographical barriers, making irrelevant location of the parties; and reintroduces contestability in the market.

Conclusions

Let’s now briefly draw some conclusions. The first conclusion is that we should note there is a common element in multilateralism and natural monopoly. This seems to be based on the fact that both embody a “public good” element. Thus, the existence of an almost natural monopoly is one of the situations calling for cooperation, in particular when the geographical scope of the monopoly is hard to define. The emergence of a monopoly can be the result of a competitive process (war) or of multilateral cooperation between competitors (peace). Needless to say, the latter is the less painful.

The second conclusion is that the presence of elements of a natural monopoly and the failure of market forces to achieve spontaneously multilateral cooperation make it necessary for the authorities (by this I mean institutions mandated to pursue the public interest) to intervene in the process with a view to facilitating the development of cooperative solutions. The history of payment systems provides innumerable examples. With the exception of the case of the Society for Worldwide Interbank Financial Telecommunication (SWIFT), which represents a very remarkable case of multilateral cooperation leading to the creation of a monopolistic solution by market forces, the establishment of national and international infrastructures has been only possible thanks to the intervention of the authorities: Let me just quote the case of CLS (Continuous Linked Settlement) and the Depository Trust and Clearing Corporation (DTCC). The recent Single Euro Payments Area (SEPA) project of the Eurosystem is another example of the catalyst role played by the authorities in fostering market agents’ cooperation.

This takes me to my third and final conclusion, which concerns the role of the authorities. A persistent lack of cooperation can rightly be interpreted as a lack of government. There are many ways the authorities can intervene. They can create conditions for cooperation through regulation or by acting as a catalyst, as well as by being an “enabler,” but not a “constrainer.” Or, they can provide integrated facilities (when the

elements of natural monopoly and the financial stability concerns are particularly strong). For example, almost all central banks provide real-time gross settlement (RTGS) facilities and most of them provide central security depository (CSD) services for government securities. Third, they can regulate/oversee the monopolistic solution in order to prevent potential abuses by the monopolist.

George Bernard Shaw said that democracy is a device that ensures we shall be governed no better than we deserve. I would say that cooperation is a device that ensures that we will be governed better than we deserve. That's why I would like to conclude by inviting the authorities to foster multilateral cooperation: It is the best way to obtain the best solutions for the most difficult problems.

NOTES

¹The prisoner's dilemma, devised by Merrill Flood and Melvin Dresher in 1950, is the cornerstone of a vast theoretical literature on cooperation in fields as different as evolutionary biology and international relations.

²The underlying assumption is that all customers either buy both services or neither of them, and therefore they only consider the sum of both prices, but not each price individually. If the sum of the two prices is low, then the demand for both services is high. The best situation for one entity is a high own price and a low price of the other entity. As a result, both tend to set high prices, which are bad for the customers. If the two firms merge, this upward price pressure disappears and lower prices are more likely.