

phenomenon seems more evident in the European Union and in the sample of industrialized countries³⁰.

4. The Degree of Unification in Financial Supervision and the Role of Central Bank

The descriptive analysis pointed out that the unification of supervision seems more evident in the case of Single Financial Authorities Regimes, while in the case of Central Bank-Dominated Multiple Supervisors Regimes the institutional setting seems more consistent with a “leader-followers” framework. It’s a matter of fact that in a multi – authority model the central bank tends to assume the position of “first among peers”, at least for historical reasons. Therefore the degree of supervision unification seems to be inversely correlated with central bank involvement in supervision itself (central bank fragmentation effect).

The central bank fragmentation effect can be explained as a special case of *rule-driven path dependence*. Rule-driven path dependence³¹ exists when, other conditions being equal, the choice of a given design of rules depends on characteristics already existing or already determined by the rules themselves.

In this case, a given policymaker’s choice of supervision unification level will depend on the role the central bank plays in the supervision, or that the policymaker has decided to have the central bank play. In other words, the policymaker’s choice can be viewed as a sequential process in which the institutional *status quo* counts: the supervision unification level is decided based on the position of the central bank. We had already noted that, for theoretical and historical reasons, the central bank is the *primus inter pares* among the financial authorities; therefore let us proceed straightforwardly that the policymaker takes decision on the supervision unification, given the

³⁰ See Masciandaro (2004) and Masciandaro and Porta (2004).

³¹ The concept of rules driven path dependence has been recently used in the corporate governance literature: see among others, Bebchuk and Roe (1999), Clark and Wojcik (2003).

institutional position of the central bank. If the role of the central bank is limited, the supervision concentration level will probably be high and vice versa.

We claim that the supervision unification and the central bank involvement are not determined simultaneously through the political process. Let us assume that the policymaker in a given country must decide whether to establish a unified supervision, due the blurring process in the financial markets. In that country, the central bank's level of supervisory involvement may be low or high.

4.1 Regime with Low Central Bank Involvement

Let us first consider the case where the central bank's involvement is low. The policymaker might raise the supervision unification level by increasing the involvement of the central bank. The supervision unification level and the central bank involvement would thus move in the same direction, but this does not seem to be the case. Why?

First of all, the policymaker may not wish to involve the central bank in supervisory responsibilities, to avoid moral hazard phenomena in the controlled intermediaries³² (*moral hazard effect*). Or the policymaker may not wish to raise the bureaucratic powers of the central bank, since it is already responsible for monetary policy (*bureaucracy effect*). Thus in the case of a central bank not involved in supervision, the policymaker confirms the actual role of the central bank in terms of supervision responsibilities, and so an increased supervision unification level may be achieved by creating a single financial authority.

³² Llewellyn (2001).

4.2 Regime with High Central Bank Involvement

On the other hand, if the central bank is heavily involved in supervision, the policymaker may increase the supervision concentration level in one of two ways: by increasing the powers of the central bank or by unifying them in the hands of a single financial authority.

Again, the policymakers could fear that the safety net – the central bank's function of lender of last resort – might be spread to a wider set of institutions than just banks, if the central bank is also involved in supervising insurance and securities trading firms (*moral hazard effect*). Furthermore, the policymakers might fear the creation of an overly powerful bureaucratic agency (*bureaucracy effect*). The policymaker may therefore not wish to further increase the involvement of the central bank³³.

At the same time, however, the policymaker may not be in a position to reduce the central bank's level of involvement in supervision, or may not regard it as advisable, especially if the policy of the central bank has been effective (*reputation endowment effect*). Since the policymaker has decided neither to increase nor reduce central bank involvement, he also decides not to increase the level of supervision unification. Therefore, in cases where the central bank is heavily involved in supervision, there is a tendency not to increase the level of supervision unification. On the contrary, if the reputation of the central bank is low, or decreasing, the establishment of a single financial authority could be more likely to occur.

³³On this respect, it is possible to explain the Ireland case, where the supervisory responsibilities are actually concentrated in the hands of the central bank. In fact the central bank of Ireland is not an independent and autonomous national monetary authority, as member of the European System of Central Banks (ESCB). The monetary policy of the ESCB is governed by the decision making bodies of the European Central Bank (ECB). The national central banks are an integral part of the ESCB and have to act in accordance with the guidelines and instructions of the ECB. Therefore, the expected risks of moral hazard effect and bureaucracy effect are likely to be smaller in the case of countries which are members of the ESCB. The expected evolution of the Netherlands case seems to be consistent with this interpretation.

In conclusion, the degree of central bank involvement in supervision may condition the policymaker in its decision to change the degree of supervisory concentration. The resulting effect is the noted inverse relationship with central bank fragmentation.

5. Financial Supervision Unification and Central Bank Fragmentation Effect

How do we empirically test the overall robustness of the fragmentation effect due to central bank involvement in supervision? In order to assess this relationship, we can estimate a model of the probability of different regime decisions as a function of this variable, checking for other structural economic and institutional variables.

In fact, supervision regimes can be viewed as resulting from a continuous, unobserved variable: the optimal degree of financial supervision unification, consistent with the policymaker utility. Each regime corresponds to a specific range of the optimal financial supervision unification, with higher discrete FAC Index values corresponding to a higher range of financial unification values. Since the FAC Index is a qualitative ordinal variable, the estimation of a model for such a dependent variable necessitates the use of a specific technique.

Our qualitative dependent variable can be classified into more than two categories, given that the FAC Index is a multinomial variable. But the FAC Index is also an ordinal variable, given that it reflects a ranking. Then the ordered model is an appropriate estimator, given the ordered nature of the policymaker alternative³⁴.

Let y be the policymaker ordered choices taking on the values $(0, 1, 2, \dots, 7)$. The ordered model for y , conditional on a set of K explanatory variables x , can be derived from a latent variable

³⁴ See Maddala (1983), Greene (1997) and Wooldrige (2002) for the ordered models. See also Cramer (2003).