policymaker derives from the choice of a given level of financial consolidation is not related to the utility provided by the other alternative. In the factual approach the first crucial issue is the measurement of the policymaker's choices, that is the definition of the dependent variable.

3. Financial Supervision Unification and Central Bank Involvement

The first problem when considering financial supervision concentration as a dependent variable, is to construct this variable. How can the degree of concentration of financial supervision powers be measured? To this end we use the financial authorities concentration index (FAC Index, Table 1B) proposed in Masciandaro (2004)[2]. The index has the maximum score (7) in countries where all the supervision responsibilities are in the hands of a single agency, this can be a new financial services authority – as in the UK or Germany – or the central bank – as in Ireland. Symmetrically, the index takes the minimum score (1) in countries with highly fragmentised supervisory regimes – as in the US or France.

But we should also consider the nature of the institutions involved in supervisory responsibilities, focusing on the distinction between the central bank and any other form of institution at least for two reasons.

First of all, any supervisory regime will have to provide a link between supervision and the central bank, given the potential relationship between monetary stability and financial stability. It has been pointed out correctly (Llewellyn 2005) that, irrespective of its role, the central bank is the ultimate authority for the systemic stability of the payment system. Thus, among the authorities that can have supervisory responsibility, the central bank has a special nature being the institution responsible for monetary policy. Furthermore, the special

2 The construction of the index is described in Appendix 8.1.

characteristics of the role played by the central bank have placed it in a central position with respect to the political system, the intermediaries, and the other control authorities.

Secondly, in a movement towards full consolidation in supervision, one can think of two sharp alternatives: a monopolistic central bank or a pure single financial authority. In fact the policymaker can choose to delegate the management of monetary policy as well as financial supervision to the central bank. The second type of delegation separates the conduct of monetary policy from financial supervision, establishing a pure single financial authority.

The debate on the characteristics of this link is particularly important in the European Union, where monetary policy is separated from financial supervision; See Lannoo (2000), Padoa Schioppa (2003), Goodhart and Schoenmaker (1995), Eijffinger (2001), Vives (2001), Goodhart, Schoenmaker and Dasgupta (2002). Therefore we must ask which role the central bank plays in the various national supervisory regimes. We use the index of the central bank's involvement in financial supervision: the Central Bank as Financial Authority Index (CBFA, Table 1B) also proposed in Masciandaro (2004)[3].

Note that in evaluating the role of the central bank in banking supervision, we consider the fact that, whatever the supervision regime is, the monetary authority has responsibility in pursuing the macro financial stability. The central bank can be involved in banking supervision tasks in Single Authority regimes, too. For example in Germany the Deutsche Bundesbank participates in banking supervision, in subordination to the Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin)'s issues. The Oesterreichische Nationalbank co-operates with the Austrian Financial Market Authority continuing to conduct on-site inspection. The Estonian Bank has no role in supervision, but its President is a member of the Financial Authority Board, and two other members are chosen by the central bank. In the

[3] The construction of the index is described in Appendix 8.1.

other cases, the central bank remains involved in pursuing the overall financial stability. Therefore, we choose as rule of thumb the relative role of the central bank: we assign a greater value – if the central bank is the unique or the main responsible for banking supervision.

The analysis of the degree of financial supervision concentration and the level of central bank involvement provide a general picture of the supervisory regimes around the world. In fact, each national supervisory regime can be identified with at least two characteristics: the degree of concentration of powers (FAC Index) and the degree of involvement of the central bank in that distribution of powers (CBFA Index). From a theoretical point of view, given the two possible choices of the policymaker highlighted above, we can observe the relationship between the FAC Index and the CBFA Index. The worldwide comparative picture is quite interesting. The two most frequent models are polarized: on the one hand, countries with a high unification of powers show a low central bank involvement (*Single Financial Authority Regime*); on the other hand, in countries with a low concentration of powers, the central bank is highly involved (*Central Bank Dominated Multiple Supervisors Regime*).

The descriptive evidence of the two most frequent financial supervision regimes seems to correct the idea that, given the blurring process in the financial landscape, there are two possible kinds of supervisory approach: 1) unification under the roof of the central bank; and 2) unification in a different supervisory body. Actually 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 approach seems more consistent with a “leader-followers” framework. It is 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. In other words, the descriptive analysis shows an interesting result: the national choice on how many agencies must be involved in supervision is strictly linked to the role of the central bank. The degree of supervision unification seems to be inversely correlated with central bank involvement (central bank fragmentation effect).

4. Beyond the Central Bank Involvement in Supervision? The Role of Monetary Commitment and Central Bank Independence

How do we explain this fragmentation effect given by the involvement of the central bank in supervision?

We claimed that the central bank fragmentation effect can be explained as a special case of *rule-driven path dependence*. The concept of rule driven path dependence has been recently used in the corporate governance literature: see among others, Bebchuk and Roe (2000), Clark and Wojcik (2003). Rule-driven path dependence 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 concentration 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* matters: the supervision concentration level is decided on the basis of the current 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.

4.1 Low Central Bank Involvement in Supervision