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

Let us first consider the case where the central bank's involvement is low. The policymaker might raise the supervision concentration level by increasing the involvement of the central bank. The supervision concentration 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, as to avoid moral hazard phenomena in the controlled intermediaries (*moral hazard effect*). In addition, the regulatory office may be prone to regulatory capture. If a central bank is involved into banking supervision, capture may have significant negative effects on monetary policy (Heinemann and Schuler 2004). Or the policymaker may wish to avoid increasing 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 increased supervision concentration level may be achieved by creating a single financial authority.

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

In the United Kingdom case, it has been stressed that, among all the arguments that led the Government in 1997 to establish the Financial Services Authority (FSA), removing supervision from the Bank of England could have been a *quid pro quo* for giving it monetary independence, on the grounds that a central bank with too many functions could be too much of a power centre within the democratic system. In Norway, due to the banking crisis in the early 1990s, the possibility of merging the BISC with the central bank was considered by a committee appointed by the Ministry of Finance. But the Parliament, in order to avoid an excessive concentration of power, ruled that the BISC should continue as a separate and independent agency .

Austria adopted unified financial supervision in April 2002. In banking supervision, the existing powers of the Federal Ministry of Finance and in the Oesterreichische Nationalbank (OeNB) were combined under the Financial Market Authority (FMA). In Germany, the Federal Financial Services Supervisory Authority (BaFin) was established in May 2002 against the explicit preferences of the Bundesbank. BaFin replaced the three existing supervisory authorities for banking and financial services, insurance companies and securities trading.

The Danish Financial Supervisory Authority (DFSA) was established in 1988 through the merger of the Danish Banking Supervisory Authority and the Insurance Business Supervisory Authority. The Swedish Financial Supervisory Authority was established in 1991 through the merger of the former banking and insurance supervisory bodies (Bank Inspection Board and Private Insurance Supervisory Service, respectively). In Norway, the Banking, Insurance and Securities Commission (BISC) was established in 1986 though a merger of the Banking Inspectorate and the Insurance Council.

The Hungarian Financial Supervisory Authority was founded in April 2000 by merging four supervisory authorities: The State Banking Supervision, the State Securities Supervision, the State Supervision on Pension Funds and the State Supervision of Insurance Companies. In Japan the Financial Services Agency (FSA) was established in 1998, and before that the Ministry of Finance and the Bank of Japan were in charge of regulating the banking sector and all aspects of supervision were the sole responsibility of the Ministry of

Finance. In Belgium, the Banking, Finance and Credit Commission was created as a result of the Integration of the Insurance Supervisory Authority into the Banking and Financial Commission since 1 January 2004.

In all these cases, the central bank was not the main body responsible for banking supervision when supervisory reforms took place.

4.2 High Central Bank Involvement in Supervision

If, on the other hand, the central bank is heavily involved in supervision, the policymaker may increase the supervision concentration level in one of the two following ways: by increasing the powers of the central bank or by assigning them to a new single financial authority.

Ireland seems to be the typical case of an outlier. The first explanation is that the interests of the central bank captured the Government. In October 1998 the Irish government approved in principle the establishment of a single supervisory authority and also agreed to create an Implementation Advisory Group (IAG) to progress the necessary work. The IAG failed to reach a consensus; the Irish Central Bank, with its allies in the Department of Finance, wished to continue the central bank as the single supervisory agency; the banking sector strongly favoured the retention of the central bank as its supervisor. While the IAG report recommended that this single authority should be a new independent organization outside the central bank, a minority of the group members preferred to locate the new structure within a restructured central bank, by establishing a separate division or wing to undertake prudential and consumer protection functions. The subsequent government decision, in early 2001, was to link monetary policy and related functions with regulation of financial services into a restructured central bank and to establish the Financial Services Authority of Ireland as an autonomous department within.

Alternatively, we could explain the exception noting that, *ceteris paribus*, the Irish central bank, as a member of the European System of Central Banks (ESCB), shares the monetary responsibilities and prerogatives with other central banks; in other words, the central bank of Ireland is not an autonomous national monetary authority. 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 decisions of the Irish Government could be explained without taking into account the capture theory.

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*).

In France, a reform was recently implemented, merging different financial supervision responsibilities into one regulatory authority – Autorité des Marchés Financiers (AMF) –, however, the Banque de France prerogatives remained unchanged. In 2004, after the Parmalat scandal, the Italian Government proposed a draft text of a bill, concerning a general reform of the supervisory architecture, based on the establishment of a single financial authority (Autorità per la Tutela del Risparmio). The text has not been approved by the appropriate Parliamentary Committee. The proposed reform encountered strong opposition from a bi-partisan coalition, defending the role of the Bank of Italy in promoting financial stability. The reform is still subject to discussion.

Finland has opted not to adopt the unified approach in financial supervision, in contrast to the other Scandinavian countries. It has been claimed that the Bank of Finland involvement in supervision has to be considered in explaining this choice. In Iceland, prior to the establishment of the single financial agency, banking supervision was conducted by the central bank. In 1996, a committee was set up by the Minister of Commerce, to look at prospects of moving towards unified supervision, given the increasing number of financial conglomerates. Only one member on the committee – the central bank official – voted against the introduction of unified financial supervision. However, the central bank obtained the ability to appoint one of the three members of the single financial authority board.

Since the policymaker has decided (or was unable to decide) neither to increase nor to reduce central bank involvement, he/she also decides not to increase the level of supervision concentration. In case the central bank is heavily involved in supervision, there is a tendency not to increase the level of supervision concentration.

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, despite its high involvement in supervision. In the UK the Johnson-Matthey failure, the Bank of Credit and Commerce International case of 1991 and the Barings case of 1995 were interpreted by the public as being responsibilities of the Bank of England. The conduct of banking supervision had not enhanced the reputation of the central bank; each failure led to polemic debates, the establishment of a formal enquiry in two cases and, finally, a new banking supervision act, creating the FSA. In Sweden the creation of the single financial authority was prompted by the banking crisis that hit the country in 1990-1991.

The link between banking instability, central bank reputation failure and single financial authority establishment is also evident in the Baltic unified supervisory architectures and in the case of Korea. Estonia experienced a severe banking crisis in 1998 and 1999. In May 2001, the Estonian Parliament adopted the Financial Supervisory Authority. Before the Act, the supervision was split into the three traditional sets of institutions (banking, securities and insurance). The Bank of Estonia was responsible for state supervision of banking. Latvia experienced banking and financial crises in 1995 and in 1998. In July 2001, the Financial and Capital Market Commission was established, as a consolidated institution replacing the Bank of Latvia as the credit institutions' supervisor, the Securities Market Commission, the Insurance Supervision Inspectorate. In Korea, until 1997, the central bank was responsible for banking supervision. Following the 1997 financial crisis, a presidential committee recommended a drastic overhaul of the organization of the central bank and the country's supervisory structure. As a result, the former four financial supervisory authorities were combined into one integrated financial supervisory body, the Financial Supervisory Committee.

Therefore, the degree of central bank involvement in supervision may influence the policymaker in his/her decision to alter the supervision concentration effect, according to an inverse relationship: the result may be the central bank fragmentation effect.

5. Overall Central Bank Institutional Setting

However, is it possible to separate the different causes that could explain the importance of the role that the central bank plays in supervision? In general, the three effects explaining the policymaker's path dependent behaviour can depend on the central banker's past behaviour or on the legal features. In other words, the relevance of the central bank involvement in supervision may hide the role of the central banker's past performances or the key aspects of the monetary institutional setting. The behavioural