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**FINANCIAL RESTRAINTS AND
LIBERALIZATION IN POSTWAR EUROPE**

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ABSTRACT

Financial Restraints and Liberalization in Postwar Europe*

In the real world of less than perfect markets, balancing the benefits and costs of financial liberalization is usually impossible *ex ante*. Having been slow to liberalize, post-war Europe offers a possible testing ground. Looking at the experience in Belgium, France and Italy, a number of interesting lessons can be learnt. There is no discernible growth effect of financial repression in the sample studied here. Credit ceilings do not reduce the volatility or the level of nominal interest rates but they succeed in lowering the average real interest rate level. Capital controls keep interest rates down but increase their volatility. Financial restraints have been used to provide cheap financing of public sector deficits and to support industrial policies, but have undermined fiscal discipline and monetary control. Upon liberalization, the rent created by financial repression, initially captured by the public sector, did not disappear but shifted towards the personnel.

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NON-TECHNICAL SUMMARY

If financial markets were operating at full efficiency, the case for liberalization would be clear-cut. Financial markets, however, are known to suffer from serious defects associated with the phenomenon of asymmetric information. In the real world of less than perfect markets, balancing the benefits and costs of liberalization is usually impossible *ex ante*. Fortunately lessons can be learned from previous experiments. Europe offers a possible testing ground. In the post-war era, most European countries have been very slow to liberalize their financial markets. For example, it was not until July 1990 that the European Union had fully abolished exchange controls.

This Paper examines in some detail the process of financial liberalization in Belgium, France and Italy. For well over 40 years, Belgium, France and Italy have adopted a variety of tools aimed at keeping interest low, primarily to help financing governments, while orientating credit toward favoured industries, regions or firms. Quantitative credit ceilings were used to unhook quantity and prices (the interest rate) but this also required preventing international arbitrage. Capital controls, while primarily motivated by the wish to rein in speculation, were seen as a logical companion to domestic financial repression. Indeed, to be effective, domestic financial repression requires capital controls and therefore adds two sources of distortions.

Among the lessons from these three case studies, two have implications for current policy issues. First, financial repression prevents the emergence of a competitive financial sector. Capital controls cannot be lifted until this sector is strengthened, which may take a substantial amount of time following domestic financial liberalization. Second, countries which adopt a fixed exchange rate regime typically engage in some form of financial repression, either to defend the regime or because they generally wish to harness financial markets, or both.

In order to measure these effects, the Paper next carries out an econometric analysis of 11 OECD countries for which the relevant information is available. The main results are as follows:

- Pegs are found to unambiguously reduce interest rate volatility. Capital controls have the opposite effect.
- Financial restraint succeeds in keeping real interest rates lower than they would have been otherwise. There is no clear sign of any effect on the nominal interest rate, presumably because authorities who avail themselves of a shelter against financial markets do not dislike or fear inflation.

- Jointly, a fixed exchange rate regime, capital controls and credit ceilings lead to reduced interest rate volatility and lower real short-term interest rates, leaving nominal interest rates unaffected.
- The suppression of financial restraints is not followed, within a year, by more interest rate volatility.
- Domestic credit restraints are associated with improved overall budget surpluses. This is the outcome of two opposite effects: lower real interest rates reduce debt service but easy financing creates an incentive for larger primary deficits. There is little evidence that capital controls are accompanied by deeper deficits.
- Financial restraints are found not to adversely affect growth. The efficiency costs of financial repression seem to be of a second order of magnitude.
- The end of financial repression increases competition in the banking industry but without affecting profitability. Rents simply shift, being captured by the more professional staff on which banks crucially depend.
- Quantitative credit ceilings do not make control of monetary aggregates more efficient. In fact, inflation tends to be higher.

1. Introduction

The recent wave of currency and financial crises which have rattled most of the emerging market economies from Asia, Europe and South America is deeply related to the process of financial liberalization over the preceding decade. The human, economic, and political costs of the crisis are staggering. They must be set against the benefits of financial liberalization. Proponents of liberalization rest their case on the improved allocation of resources which is expected to follow as well as on the erosion of the effectiveness of restrictions. But just how big are these gains, especially if the controls “do not work”? *Ex ante*, of course, one cannot offer estimates. *Ex post*, when the costs of crises are accounted for, the balance is doubtful. Yet, the proponents of financial liberalization feel that they do not have to offer the kind of cost and benefit analysis that is customary in other circumstances. Theory, it is claimed, is unambiguous and since the benefits accrue permanently they must outweigh whatever costs occur in the interim period.

Theory, unfortunately, is not as one-sided as it is often made to be. If financial markets were operating fully efficiently, the case for liberalization would indeed be clear cut. Financial markets, however, are known to suffer from serious defects associated with the phenomenon of asymmetric information.¹ The tendency of financial markets to display extreme instability is well recognized. Indeed virtually all financial markets are subject to public interventions in the form of extensive regulations and careful overseeing. That capital opening requires a coordinated international approach is also non-controversial: the prescriptions of the Basle Committee as well as the emergence of international regulatory bodies (e.g. IOSCO) represent efforts towards the establishment of international norms. Yet, international organizations such as the OECD or the IMF still insist officially that financial liberalization is an end by itself. The OECD has imposed capital liberalization to its new members (Mexico, South Korea) and is currently exerting pressure on transition

¹ The macroeconomic role of asymmetric information has been described by Greenwald, Stiglitz and Weiss (1981). Implications for currency markets are presented in Eichengreen et al. (1995) and for crises in general by Mishkin (1991).

countries such as Hungary to complete their efforts. The IMF staff has only recently begun expressing a more nuanced view (see *International Capital Markets*, 1997, 1998) but an official *aggiornamento* is still opposed by the Fund's main shareholders.

In the real world of less than perfect markets, balancing the benefits and costs of liberalization is usually impossible *ex ante*. Fortunately lessons can be learned from previous experiments. Europe offers a possible testground. In the postwar era, most European countries have been very slow to liberalize their financial markets. For example, it is not until July 1990 that the European Union has fully abolished exchange controls, and even then some late entrants have been given grace periods to fully comply with the agreement, see Table 1. It has taken the most advanced economies of Europe between 30 and 45 years after the war to comply with the openness standards that are now sought in emerging markets. Examining that experiment may help shed light on the relative costs and benefits of financial liberalization.

Table 1

This paper examines in some detail the process of financial liberalization in three countries: Belgium, France and Italy. These countries have been chosen because they have long operated with very repressed banking and financial systems and were among the latest to remove capital controls, a step that they unenthusiastically supported. Section 2 describes these three cases, providing background information for the analysis that follows. Section 3 asks four questions: is there any evidence that financial repression has been hurting? What are the links between internal financial repression and capital controls? What are the effects on money and financial markets of deregulation? And what are the budgetary effects? The next section looks at banks, the great casualty of the Latin American and Asian crises. Section 5 offers as conclusion some policy implications.

2. Three Tales

In the immediate postwar Europe, virtually all goods were in scarce supply. This led to the early adoption of rationing schemes, including in the financial sphere. The acquisition of credit and foreign currency were everywhere subject to approval by the relevant authorities. Currencies remained unconvertible for a full 14 years: current account convertibility was declared jointly by the founding members of the EEC in 1958. Capital convertibility was restored at different speeds and bit by bit. It was made complete in July 1990 following the adoption of the Single Act, see Table 1. The freeing of credit markets has varied considerably from country to country. Germany, for example, opted early on for free banking and universal banks. The UK moved quickly towards the reestablishment of London as a financial center. Yet, most of Europe remained far from the idealized model of a market economy for several decades.

The following sections offer a brief description of financial repression in three of the six founding members of the European Economic Community²: Belgium, France and Italy. These countries have been, perhaps, more persistent in preventing market forces from operating freely, but similar arrangements existed in virtually all others, simply they were lifted faster. The last column in Table 1 shows when credit ceilings have been in use in the OECD area.

Most of the changes were the result of domestic travails, yet the process of European integration has played a role too.³ Exogeneity is, as always, difficult to pinpoint. To a large extent, given the rule of unanimity needed for important changes at the European level, EU-wide changes tend to follow domestic changes. Governments support the adoption of new measures by the EU only if they intend to implement them.

² The EEC has been renamed European Union (EU) with adoption of the Maastricht Treaty in 1991. I overlook this distinction, adopting the name EU henceforth.

³ For a detailed analysis of each country's position in the process of elimination of capital controls, see Bakker (1996).

2.1. Belgium⁴

In postwar Belgium, repression of the banking system was nearly complete. Following the Great Depression, in 1935 Belgian banks were separated into two groups: deposit banks and investment banks. This situation, which resembled the British tradition of clearing banks and merchant banks, lasted until 1993. Deposit banks, the bulk of Belgian financial industry, could only collect deposits and make short term loans and were prevented from acquiring shares (with few exceptions after 1967). By 1945, deposit banks had become specialized in bankrolling the government: the public debt held by banks represented about 80% of all their loans, and most of that debt was short-term. As credit demand from the private sector started to rise, the government feared being crowded out from the low interest rate market that it had set up before the war. In 1946 it imposed on deposit banks a number of “structural ratios”, including a floor on public debt holdings. The “cover ratio”, between cash and Treasury paper on one hand and short term liabilities on the other hand was set at 65% for the larger banks and 50% for the smaller ones. This in effect forced banks to roll over the public debt. The cover ratio was reduced later on, and finally suppressed in 1962. As a compensation, maybe, banks were allowed to cartelize in 1941. They first adopted ceilings on deposit interest rates and next agreed upon caps on lending rates.⁵ Foreign banks, even those established in Belgium, were not allowed to lend directly to the public sector.

As a result, banks were working in a relatively riskless environment: no price competition on deposit collection and relatively safe loans since they were lending short-term to the private sector and to the public sector. With low risk came low returns. Face to face contacts between the bank consortium and their main customer, the state, made sure that returns were sufficient to keep the ball rolling. This cozy

⁴ This section draws heavily on Cassiers (1997).

⁵ Cartels are notoriously fragile and the agreements to refrain from interest competition was continuously challenged, especially after foreign banks started to operate in Belgium in the 1960s. The central bank was often asked to use its influence to bring free-riders to heed the cartel's decisions. On this issue, see Vanthemsche (1997), p.429-30.

relationship served well both the public sector and banks, at the expense of under-remunerated depositors and over-charged borrowers.

In the late 1950s, competition came from two sides: saving banks and foreign banks. This prompted deposit banks in 1957 to ask for, and get, the right to extend the maturity of their loans and to lessen the structure ratios which were finally suppressed in 1962. This did not lead to free banking, though. The central bank started to issue “recommendations” that credit to the private sector be “voluntarily” restricted. Autodiscipline followed as commercial banks feared a return to the previous system.

Table 2 shows that in the 1960s, the so far sluggish Belgian economy picked up speed. Private demand for credit boomed and the banks responded. With “voluntary” credit ceilings still in place, competition for cheap deposits and status-enhancing market shares took the form of an expanding network of branches. As Figure 1 shows, this expansion set Belgian banks far apart from others. The Belgian banking scene became far more international and credit to the private sector grew considerably. Yet, the public sector remained a key customer and the cozy relationship survived, including guaranteed margins on public paper and the exclusion of foreign banks from this lucrative market. The first oil shock further increased the golden goose effect: high interest rates resulted in a fast buildup of public debt service met by ever larger public borrowing from banks.

Table 2

Figure 1

Restrictive measures on banks were accompanied by limits to financial exchanges with the rest of the world. Starting in 1955, Belgium (along with Luxembourg, its partner in the monetary union established in 1922) operated a dual exchange rate system. The commercial franc was fixed, first to the US dollar and, after the collapse of the Bretton Woods system, to the DM. This rate was guaranteed only for current account transactions. Capital transactions had to be carried out on the financial franc market at a floating rate. The authorities could intervene on the financial franc market but had no obligation to do so. A dual exchange market is a market-based form of capital control which insulates the monetary authorities from international flows. This

arrangement is quite efficient to deal with capital inflows or outflows since the financial exchange rate is free to fully respond to fluctuations without affecting, at least in principle, the commercial exchange rate. In practice leaks occur which forces an ever widening range of control and enforcement measures. Figure 2 reports the percentage difference between the two rates, a positive value representing the case where the commercial franc is appreciated vis a vis the financial franc. It shows that during tranquil periods the difference is small and grows in the presence of (speculative) outflows. The difference is a measure of the efficiency of the device and its ability to shield domestic markets and the central bank from disturbances.

Figure 2

The oil shocks set in motion a process which led to the big bang of 1989-91, the end of banking system cartellization. With a public debt well above 100% of GDP, the public sector had to trim down its expenses, including the cost of debt service. Inflation had to be brought down from double-digit levels. The chosen strategy was to tie the Belgian franc to the DM. This in turn led to lower risk premia and the integration of the Belgian financial system into the European and global network, a move reinforced by the end of the dual exchange rate system. The big bang took the form of a series of deep reforms. First, the public debt was no longer financed by direct deals with the banks consortium; after 1989 the Treasury started to issue paper on a market open to all domestic as well as foreign institutions. This affected seriously the banks' profit margins so, in return, the separation between deposit and portfolio investment banks was suppressed in 1993. The oligopolistic setting of deposit rates was abandoned at the same time. In fact, the Single European Act (the so-called "1992 Act") implied that the Belgian banking system had to be fully liberalized.

2.2. France⁶

⁶ This section draws on Icard (1994). See also Melitz (1991) and Wyplosz (1988).

The tale starts in the immediate postwar when the government led by General de Gaulle, which included communists, nationalized the major banks. The reason was a mix of punishment for institutions which had collaborated with the German authorities during the war, and a strongly held view that collusion between financiers and industrialists had led to an excessive concentration of wealth and economic power during the interwar period.

Following banking legislation adopted between 1944 and 1948, monetary policy relied on a combination of discount quota ceilings and selective credits. Each bank was given a quota for its rediscounting, the only source of financing from the central bank. Quotas were not allowed to grow fast, in fact their ratio to banks assets continuously declined over the next two decades. The interest charged at the discount windows were systematically kept well below the market rate. Emergency funding from the central bank was possible, but at high penalty rates, aptly called “the rate from hell”.

Undermining this quantitative control of money supply was the policy of selective credits. Commercial banks could obtain *ex ante* approval by the Banque de France for credits to selected borrowers. Over time, the criteria for selecting borrowers changed as the authorities adjusted their definition of priority, in line with the Planning Commission’s choices. In the early postwar period, rebuilding the capital good industry was the main priority. Over time priority shifted to encouraging exports and housing. Once a particular loan to a selected borrower had been approved, a commercial bank could discount it with a specialized institution which could in turn borrow directly from the central bank. The special discount rate was even lower than the ordinary discount rate. Unsurprisingly, selected credit grew faster than overall credit, gradually representing the lion’s share of overall credit.⁷ More importantly, control of the money supply was lax as it unavoidably required restraining credit to priority borrowers, a politically difficult exercise.

⁷ This explains the puzzling observation that net claims by the Banque de France on the banking system represented an unusually large proportion of total bank credit throughout the 1950s and 1960s. Commercial banks knew that credit to favored causes was automatically refinanced by the central bank, thus guaranteeing an attractive profit margin.

In addition, by law, interest rates on bank sight-deposits were set to zero while most other lending and deposit rates were set by the Banque de France. The interdiction to serve interest on sight deposits is still in place but may be abandoned in 1999. A wide range of popular savings accounts remained subject to interest rate restrictions. Bank lending rates had been liberalized much earlier in 1967.

In 1957, France underwent an exchange crisis fueled by a widening inflation differential *vis a vis* the US. The method of monetary control was changed to credit ceilings (*encadrement du crédit*). This method was adapted and refined over the years but basically worked as follows. Each bank was given a yearly growth rate for its credit outstanding (less long term liabilities). Excessive credit was subject to a special reserve requirement which was increasingly quadratically. The authorities would decide each year on the growth rate, allowing smaller banks to expand faster than larger ones.⁸ Selective credit was not abandoned, however. A number of exemptions were given to priority borrowers, still benefiting mainly the capital good and housing industries as well as exports. Such credits were off the ceiling quotas and, naturally, they grew much faster than the credits under ceiling. Much of it was also subsidized. Eventually, to keep money growth under control, selected credit was brought under the ceiling system, but it was still allowed to grow faster than regular credit.

Icard (1994) well articulates the reasoning behind credit ceiling, a classic example of nth best. Because subsidized credit represented a large share of overall credit, an interest rate policy would be ineffective. To significantly reduce money growth, the market interest rate would have to be raised to very high levels since it applied to a subset of overall credit. Since it was inconceivable to hold back the “priorities” with a restrictive policy, money supply grew rapidly and inflation was high, so nominal interest rates too were high, thus thought unsuitable for further increases.⁹ Banks had no reason to be seriously concerned with competition or bad loans as the market for

⁸ It is not clear why smaller banks were favored. Presumably there remained a view that big banks are dangerous, and it was felt that they could find other sources abroad. Another argument was that small banks lend more to small enterprises, a traditional favorite daughter of any French government.

⁹ Presumably, this argument involves Modigliani’s nonneutrality.

credit was in structural excess demand and priority loans had a state guarantee. This led to poor management and weak institutions, and to concerns that high interest rates could destabilize the banking system. The combination of high inflation and a fixed exchange rate, together with fairly abundant credit, meant that the current account was more or less continuously in deficit. The response was to encourage capital inflows through domestic credit rationing.

As in Belgium, the public debt was explicitly first in line for credit. Credit ceilings were also used to that end. Bank loans to the public sector did not enter the ceiling, thus avoiding any competition for funds with the private sector. And as credit rationing implied interest rates below market-clearing level, the budget was the recipient of net transfers from depositors.

It is not until the mid-1980s (40 years after the war) that this approach to monetary policy was abandoned. The immediate cause for change was the macroeconomic situation following, again, severe exchange crises in 1982 and 1983. Inflation became the priority and the economy started to slow down. Credit demand followed the downtrend so, for the first time, excess demand gave way to unused lending rights: credit ceilings ceased to bind. As a result, monetary control based on quantitative limits was inoperative. Individual credit ceilings were dropped but quadratically-increasing reserve requirements remained. Some degree of credit selectivity was maintained as favored loans were only weighted by two third towards reserve requirements.

The second incentive for change came from the authorities' concern with the role of Paris as a financial center. The authorities encouraged the adoption of new instruments such as options and the creation of the MATIF, Paris' futures market. The government found other ways of financing its borrowing requirements. Banks could also tap the growing amount of resources collected by the financial markets.

In 1986, more than four decades after the end of the war, came the last change. The Banque de France adopted the "Anglo-Saxon" approach, relying on the interbank and open markets and on market-set interest rates to influence the volume of credit demand. Credit selectivity was abandoned and replaced by explicit credit subsidies.

The history of capital controls is equally long. Dating back to the restoration of capital account convertibility in 1958, France operated a system of restrictions which varied over time depending upon circumstances, but was not removed until 1989, a few months ahead of the EU-wide deadline of July 1990. At all times capital outflows have been regulated, while restrictions on inflows have been imposed on a few occasions: after the breakdown of the Bretton-Woods system in 1971-73, and when the DM was temporarily weak at the end of the 1970s.

Capital controls have always been of the administrative variety, i.e. based on interdictions. Banks, which were the required channel for cross-border transfers, were in charge of implementing the controls, and typically complied.¹⁰ By and large, unless specifically authorized, outflows were either forbidden or subject to ceilings. These restrictions applied to firms, banking and financial institutions, and ordinary citizens. The ceilings were frequently modified, being raised when exchange market pressure was seen as less threatening by the monetary authorities. They were lowest at times of acute crisis, in 1973 after the oil-shock or after the Franc crisis in 1983, at which point French citizens travelling abroad had to purchase a document on which outflows were recorded and could not exceed FF2000, i.e. some \$270, per person and per year. Simultaneously, the use of credit cards abroad was forbidden. Leads and lags were also the object of a specified legislation which set limits (adjusted depending upon circumstances) on the time to repatriate export earnings as well as on advance purchase of foreign currency by importers.

When pressure was extreme, these measures were supplemented by others. Between 1971 and 1974, France also operated a dual exchange market similar to the Belgian one: there was a fixed commercial franc and a floating financial franc. In the early 1970s and until the oil shock, in 1973, a Chilean-type 100% margin requirement was also imposed on bank deposits by nonresidents.

¹⁰ According to Bakker (1996), this stands in contrast with German banks which displayed opposition to implement controls when they were in force in Germany.

The motivation for capital controls was varied. Fundamentally, the French authorities wished to “disconnect” the domestic interest rate from foreign ones. The measures proved to be successful during periods of speculative attacks, especially in the early 1980s. This was in line with the policy of credit ceilings which implied non-market clearing interest rates. Figure 3 indicates that, together, these measures allowed France (and Italy) to maintain for about a decade (1973-82) negative real interest rates. The stated aim was to prevent runaway increases in public debt and to “support investment”. Another objective of controls on outflows was to limit tax evasion. Finally mercantilist sentiment also played a role in providing support for keeping French savings in France.

Figure 3

As previously noted, the credit ceilings were not preventing money growth from exceeding the central bank’s announced targets, see Table 3. With inflation far in excess of Germany’s, the fixed exchange rate regime was in constant jeopardy. Depreciations were endemic and widely foreseen, giving rise to recurrent exchange market crises. Only controls allowed for the survival of the exchange rate regime.¹¹ Naturally, these measures had highly visible drawbacks, in addition to efficiency costs. Avoidance was a national sport, and a source of income redistribution. For example, large firms with important operations abroad easily escaped controls, while smaller enterprises were constrained.¹² In addition, banks faced increasingly large administrative costs in enforcing the controls, not to mention the need to manage a dicey relationship with their customers.

Table 3

The tide turned against capital controls when, after the crises of 1982-83, the government decided that membership to the EMS –and to the European Union more

¹¹ On the need for capital controls to maintain a fixed exchange rate regime in an inflationary situation, see Wyplosz (1986).

¹² This aspect was made embarrassingly obvious when the two largest car-makers (Renault and Peugeot) set up their financial subsidiaries in Geneva in the early 1980s.

generally—implied that inflation be brought down to the German level to eliminate the need for recurrent devaluations. Along with the adoption of a new monetary policy in 1986, this soon made controls unnecessary. The Single Act which further prevented discrimination among European countries sealed the fate of exchange controls.

2.3. Italy

After the war, most commercial banks were state-owned but relatively free to operate. Monetary policy was conducted through standard liquidity creation. On the other side, capital controls were firmly in place, the object of detailed –but often evaded— regulation which was not lessened after the establishment of current account convertibility in 1958. Like their French counterparts, the Italian authorities were convinced that speculation is mostly destabilizing, and regarded controls as a prudential device. In the late 1960s, after two decades of very fast growth and low inflation, Italy started to establish its trademark: endemic budget deficits which ended up being largely monetized and a source of creeping inflation.

By 1970, the Lira was an embattled currency. Capital controls, already extensive, were reinforced. The breakdown of the Bretton System brought another blow. As the dollar weakened, the DM strengthened and the Lira got caught in the middle of this seesaw movement. This led to a deep change in the conduct of monetary policy as well as in a further strengthening of capital controls. A dual exchange market was adopted, but it was quickly evaded, in particular through large exports of cash. The authorities responded with a triple exchange market, setting up a separate floating exchange rate for cash transfers. When none of that worked, the single exchange rate was re-established, and temporarily replaced by a 50% margin deposit on some type of flows.

A longer-lasting move was the adoption in 1973 of credit ceilings. As they were moving to tighten up monetary policy, the authorities wanted to avoid putting too much pressure on investment by small and medium enterprises. The measure was

clearly seen as temporary but it remained in place until 1983.¹³ Over time, credit ceilings were used to encourage the financing of current account deficit through capital inflows. The idea of replacing autonomous domestic money creation by private foreign borrowing was an explicit component of the IMF program agreed upon in 1974.

The measure aimed primarily at large short-term bank loans. The ceilings were frequently (several times a year) revised, at least early on. Special credit institutions – often publicly-owned institutions specialized in mortgages-- were largely exempt from ceilings. Over time, the range of exemptions expanded: the list grew to include foreign currency loans, loans to local authorities or to particular geographic areas, etc. Non-compliance was also widespread and led to tighter penalties, like the imposition of non-remunerated compulsory deposits on delinquent banks. In the end, and in contrast with stated intentions, the credit ceilings mainly hurt small firms. To protect small firms, ceilings were imposed per credit, but large firms and their banks circumvented the size limit by splitting large loans into acceptable small ones. Figure 4 shows that credit ceilings were not very successful, at least in achieving the targets on total domestic credit growth. Part of the reason was non-compliance, but another important part of the story was the budget deficit. As in France and Belgium, credit ceilings were explicitly seen as a way of avoiding to crowd public borrowing out without raising interest rates. In the event, interest rates were kept low (see Figure 3) and budget deficits continue unabated.¹⁴ Crowding out affected those with less political clout or weak connections to banks.

Figure 4

2.4. Summing up

¹³ A general study of this experiment is Cottarelli et al. (1986). See also Caranza and Fazio (1983).

¹⁴ “The task of controlling the domestic component of the base is made more difficult by the Treasury’s direct access to central bank’s financing”, Caranza and Fazio (1983), p.39.

For well above 40 years Belgium, France and Italy have adopted a variety of tools aimed at keeping interest low –primarily to help financing governments-- while orientating credit toward favored industries, regions or firms. Quantitative credit ceilings were used to unhinge quantity and prices (the interest rate) but this required also preventing international arbitrage. Capital controls, while primarily motivated by the wish to rein in speculation, were thus a logical companion to domestic financial repression.¹⁵

In fact, ceilings were seldom “biting”, i.e. effectively constraining bank credit. In Italy Cottarelli et al. (1986) estimate that the constraint was operative in 1974Q2-1975Q1, 1977Q1 to 1977Q3 and 1980-82. The Banque de France had develop its own index which shows a similar sporadic pattern. After a careful analysis Cassiers (1997) reaches the same conclusion for Belgium.

In all three countries, capital controls were mainly used to restrain outflows. Borrowing from abroad was a natural way around credit ceilings, one that was even welcomed by the authorities when the current account deficit was deepening. The banking and financial systems used any crack in the system to develop their lending business. Unsurprisingly, in countries where the Treasury had direct access to central bank financing and the central banks were not independent, monetary control was weak and the three countries exhibited large inflation rates.

Most other European countries followed similar practices well into the 1980s, with similar results. Even in those countries where monetary control was firm, and inflation low, various controls were used either to direct credit to favorite sons and daughters, or to limit speculation. Even Switzerland, the land of private banking, practiced various non-market schemes when the Swiss Franc came under pressure towards appreciation, as Table 4 recalls. For several decades after the war, free financial markets were not a defining characteristic of Europe.

¹⁵ For a comparative study on France and Italy that reaches similar conclusions but from a different angle (the focus is on the stability of money demand and control of monetary aggregates), see Dooley and Spinelli (1989).

3. Macroeconomic effects

What are the effects of domestic financial repression and capital controls? This section examines the period of heavy interference and at the liberalization process in an attempt to answer this question. It starts by cleaning some underbrush, the relation between domestic and foreign regulation. It then examines the effect of financial repression, and its lifting, on interest rate levels and volatility. Finally it asks whether the associated inefficiency had a measurable impact on growth. The effect on the banking system are taken up later on in Section 4.

3.1. The link between domestic financial markets and currency markets

Among the cases surveyed, all those that repressed their domestic financial markets used capital controls, but the reverse is not true. Some countries (e.g. Switzerland, Italy until the early 1970s) resorted to capital controls while leaving domestic financial markets reasonably free. This is a logical, and therefore general, outcome, not restricted to the cases at hand. Financial repression cannot be achieved if borrowers and lenders can circumvent it by freely transferring funds to and from abroad. On the other side, domestic financial markets can operate freely while being separated from foreign markets: this is just financial market autarky.¹⁶ A number of important implications follow.

First, capital controls cannot be safely removed before financial repression is ended. If they are, domestic regulations on financial markets suddenly become inoperative. The transition from high regulation and protection to full liberalization and competition requires adjustment in the industry. Rents disappear, implicit guarantees are removed, competition forces a streamlining of financial firms and the development of new competence. Following liberalization, some banks and financial institutions are bound

¹⁶ Free financial markets with capital controls existed during the interwar period according to a written communication by Pierre Sicsic.

to fail; while this represents a natural, possibly even desirable, step it can have ominous systemic consequences if the failures do not happen orderly. Structural adjustment of the financial and banking industry, the acquisition of human capital and orderly closing of ailing institutions all take time: a sudden withdrawal of capital controls is therefore extremely dangerous.

Second, the apparent linkage between external and internal controls should not conceal different logic. Financial repression, at least in Europe, has been motivated by a general distrust towards financial markets, especially obvious where large banks were nationalized. Governments feared economic –and therefore political—powers. They wanted to channel savings to particular industries or regions. They also wanted easy financing of budget deficits. Both directed credits and budget financing at preferred rates amounted to subsidizing borrowers and taxing lenders. The same aims –whether they are justified or not—can be achieved by explicit tax cum subsidy instruments, with the clear advantage that the effects and size of the transfers become transparent and open to accountability. Importantly, credit ceilings add to the usual deadweight losses of taxes and subsidies the additional cost of rationing, implicitly an infinite marginal tax rate.

Capital controls, on the other hand, have different justifications. As a continuation of financial repression, they are sometimes seen as a way of preventing domestic savings from being invested abroad. This is protectionism, which benefits borrowers and hurts lenders, with the usual efficiency costs. On the other side, capital controls are also seen as a way of dealing with destabilizing speculation. Modern analyses of currency markets identify important market failures which lead to occasionally destabilizing speculation and justify some form of intervention: asymmetric information giving rise to herd behavior, and multiple equilibria which make self-fulfilling crises possible.¹⁷

Third comes the link between monetary control and the conduct of monetary policy. If they are put in place primarily to deal with destabilizing speculation, capital controls lose much of their justification when the exchange rate is allowed to float. On the

¹⁷ For a full discussion and references, see Eichengreen et al. (1995).

other hand, domestic financial repression usually implies that monetary control is not conducted by targeting the interest rate; instead, the central bank attempts to directly control some monetary aggregates – chiefly credit - through administrative means. To be effective at all, therefore, credit ceilings must be binding and the interest rate non market-clearing. When they bite, capital controls imply a domestic interest rate which is market-clearing but different from the world interest rate. The distortions resulting from domestic repression are therefore likely to be larger than those due to capital controls.

In addition, quantitative controls do not seem to have achieved their goals too well. Monetary targeting in general has not been a great success either, but there are structural reasons why credit ceilings do badly. Given the aim of favoring the financing of special interests and of the budget deficit, credit ceilings only aim at a part of total domestic credit. If the remaining part is not controlled, there is no reason for total credit targets to be hit. The loss of control is even more pronounced if capital inflows are allowed. In the end, therefore, capital controls do not prevent an interest based-monetary policy and can be seen as supporting a fixed exchange rate regime. Financial repression operates via oft self-defeating quotas.

Fourth, there are different ways of opening up. Removing capital controls immediately links up the domestic financial markets with the rest of the world. As noted above, this requires that domestic banking and financial institutions, and their supervisors, be prepared to deal with the consequences. An intermediate step, possibly undertaken as a transitory move, is to allow foreign institutions to operate on the still-sheltered but liberalized domestic scene. This allows for the build-up of human capital, for the strengthening of domestic firms through heightened competition and the weeding-out of laggard establishments¹⁸, and the adoption of adequate regulation.

¹⁸ This presumes that, along the way of liberalization, state-owned financial institutions are privatized. This has not been the case in France and Italy where, ten years after liberalization, some banks are still state.-owned.

Fifth, all market-unfriendly measures are prone to circumvention. In the three cases studied above, credit ceilings involved a number of exemptions. As already noted, this seems to be a logical implication of the reasoning behind the adoption of ceilings. Exemptions breed lobbying and cheating, and force an ever-widening set of controls. This has certainly been the case in the three countries reviewed in Section 2 and lies behind target overruns. Capital controls too are open to evasion. In contrast to credit ceilings, however, controls are only needed for their own sake – in contrast to being the necessary accompaniment of domestic financial repression-- in periods of currency pressure. As Figure 2 and 3 show, most of the time credit controls do not have much effect. Capital controls, on the other side, manage to keep down domestic interest rates when needed, at time of crises. This is readily confirmed with Figure 5 which shows the three-month French franc interest rates measured in Paris and London. Arbitrage should eliminate any difference between the two centers unless prevented by controls and the costs of circumvention. The figure shows that at times of exchange pressure large differences emerged and could be sustained for months running.

Figure 5

Sixth, there is a link between budget financing and financial repression. By imposing below market-clearing interest rate levels through credit ceilings and locking in domestic saving through capital controls, the public sector implicitly imposes a tax on saving. The ability to keep real interest rates low enough to be below the growth rate is very important: it prevents an autonomous debt buildup while relying on monetary financing. In addition capital controls permit the maintenance of a fixed exchange rate regime where it is deemed useful.¹⁹

Drawing these elements together, a few conclusions emerge.

- Domestic financial repression requires capital controls, and therefore adds two sources of distortions.

¹⁹ Wyplosz (1986) shows how capital controls to maintain an exchange rate regime while repeatedly devaluing the peg.

- The logic of financial repression is to direct saving towards public sector objectives, while capital controls may be limited to the correction of currency market failures.
- Repression prevents the emergence of a competitive financial sector with the implication that capital controls cannot be lifted until this sector is strengthened, which may take a substantial amount of time following domestic financial liberalization.

These different aspects are now studied in more detail.

3.2. Interest rates: level vs. volatility

Limiting the ability of financial markets to operate freely is sometimes justified by the view that these markets tend to display excessive volatility. Clearly, the authorities also sought to keep (real) interest rates low, ostensibly to encourage investment, more selfishly to achieve cheap finance for budget deficits. It is therefore important to ask whether these aims were achieved. On the other side, it is often feared that the removal of competition-stifling regulation will be followed by a period of instability. Several of the European financial crises of the late 1980s and early 1990s (the UK, Sweden, Finland, Spain) have been traced to a once-off adjustment that went awry.

Case studies are suggestive, but formal evidence is needed to help assess these various propositions. This section offers some econometric evidence. Table 1 presents in a compact form the main regulatory changes affecting both domestic financial markets and capital controls. Were these changes associated with measurable effects on interest rates? Exchange rates are left out of the picture because European countries have experimented with various regimes. In addition, even if the EMS implied a fixed exchange rate regime as far as the conduct of monetary policy was concerned, European currencies have been floating since 1973 vis a vis the US dollar and the yen, which may be as important for the behavior of interest rates.

The postwar period provides few regulatory regime changes per country, making country-based analyses problematic. The approach adopted here is to pool countries together. As usual, pooled cross-section analysis is open to the criticism that it assumes identical effects of the relevant explanatory variables in different countries. This is the price for avoiding the small sample hurdle. Sensitivity checks are performed to assess how high is that price.

I proceed as follows. The information provided in Table 1 is used to build two dummy variables, setting the value unity to years when capital controls or credit restraints were in place, and zero otherwise. Two other dummy variables are meant to capture the effect of liberalization: they take the value unity in the year that follows liberalization of the capital account or of the credit market, zero in all other years. This is done for the 11 countries for which complete information is available.

Table 5 first asks whether the volatility of the nominal exchange rate is related to financial market restrictions. It focuses on the short-term interest rate representative of monetary condition (code 60b in the IMF's *International Financial Statistics*). Volatility is measured as the annual standard deviation of monthly rates.²⁰ To account for a worldwide effect, each country's volatility is regressed on the US interest rate volatility and this variable is found to affect volatility in Europe. The other explanatory variables are the four dummy variables previously described. Both post-liberalization dummy variables turn out to never be significant and are not reported, although they are used as regressors (suppressing them has minute effects on the results). In both panels of table 5, the two first columns show the OLS panel estimates using heteroskedasticity-consistent estimators. In the first column, country-specific constants are allowed (fixed effects) while in the second column random effects are estimated. Credit ceilings do not affect interest rate volatility but capital controls increase volatility, the opposite of the sought-after effect. The last two columns provide results from alternative procedures designed to take into account

²⁰ Similar results obtain when defining volatility by the coefficient of variation. I choose to present estimates using the standard deviation because financial repression typically imposes low interest rates, which tend to increase the coefficient variation. Following liberalization, the coefficient of variation could decline because of higher average nominal rates even though the standard deviation increases. I am grateful to Patrick Honohan for pointing this out.

heteroskedasticity and/or covariances among countries' error terms: GLS in Column 3 and seemingly unrelated regressions (SUR) in Column 4. That capital controls raise volatility may be related to the finding by Eichengreen et al. (1995) that capital controls tend to weaken monetary policy discipline.²¹

Interestingly, the results change somehow when the exchange rate regime is taken into account. The rightmost panel of Table 5 shows the effect of adding a fixed exchange rate dummy variable, set to unity for the Bretton-Woods period (1957-1971) and for EMS membership. This dummy consistently predicts less interest rate volatility under a fixed-but-adjustable exchange rate regime. The capital control variable retains its positive sign, but it becomes either insignificant or significant only at the 7% confidence level (columns 5 and 7). Credit restraints now appear to reduce volatility, although the evidence does not seem robust.²²

These results suggest some collinearity among the three dummy variables. And indeed, during both the Bretton-Woods years and most of the EMS period capital controls and credit restraints were frequently used. Is this just historical coincidence or is there a deeper link? There are good reasons to restrict capital movements to strengthen a fixed exchange rate regime (see Wyplosz, 1986). The EMS collapsed in 1992 soon after the removal of capital controls in 1990 (See Eichengreen and Wyplosz, 1993). Similarly Mexico and Korea had to abandon their exchange rate pegs following the quasi-elimination of capital controls.

A plausible conclusion is that countries which adopt a fixed exchange rate regime typically engage into some form of financial repression, either to defend the regime or because they generally wish to harness financial markets, or both. Pegs unambiguously reduce interest rate volatility, as do, maybe, credit restraints. Capital

²¹ I have also carried out the same tests using the (ex post) real interest rate (r) and the capitalization factor ($1/r$). For the real interest rate, the results are very similar, which is not surprising since interest volatility far exceeds inflation volatility. For the capitalization factor there is weak evidence that credit restraints *increase* volatility.

²² I thank Patrick Honohan for suggesting the use of a Bretton-Woods and EMS dummy.

controls may have the opposite effect unless it is speculative pressure which both raise volatility and lead the authorities to adopt capital controls.

Table 5

The other hoped for effect is to reduce interest rates. Tables 6 and 7 have the same structure as table 5 but the dependent variable is now the nominal, respectively real, interest rate (annual averages of end-of-month observations). The influence of US nominal and real interest rates on European rates is confirmed.

Financial restraints significantly reduce the real interest rate. The effect is highly significant, estimated at 150-200 basis points. The result is quite robust to the estimation procedure, as a comparison across columns in Table 7 shows. Capital controls tend to lower, and credit ceiling to raise, the nominal rate, but these effects are not statistically significant. They suggest that the stronger real interest effect of capital controls is accompanied by less inflation, while the weaker effect of credit restraints on the real interest rate is accompanied by more inflation.²³ Being part of the Bretton-Woods system or of the EMS leaves the nominal interest rate unaffected (results not reported) but raises the real interest rate by 150-200 basis points, which presumably represents the cost of defending the regime. Countries which adopt both a fixed exchange rate regime and capital control leave their interest rates unaffected. Adopting in addition credit restraints results with lower real interest rates.

Tables 6 and 7

All in all, the statistical analysis shows that financial restraint succeeds in keeping real interest rates lower than they would have been otherwise. There is no clear sign of any effect on the nominal interest rate, presumably because authorities who avail themselves a shelter against financial markets do not dislike or do not fear inflation.

²³ Some capital controls (e.g. in Germany) and some credit restraints (e.g. in Switzerland) were designed to make the domestic currency less attractive. Changing the sign of entries in the corresponding dummy variables does not affect the results much. This procedure is not adopted because the assessment of the intent with financial restraints would require a detailed analysis and would still be arbitrary.

Surprisingly perhaps, capital controls, which in principle alleviate external pressure, actually result in more short term interest rate volatility. Finally, the suppression of financial restraints are not followed, within a year, by more interest rate volatility.

On the other hand, the experience with the EMS shows that a fixed exchange rate regime rarely survives the removal of capital controls. As shown by Eichengreen and Wyplosz (1993) and Jeanne (1996), the EMS crisis of 1992-93 can be directly related to the lifting of restrictions to capital movements. This has created the conditions for multiple equilibria which are at the roots of the self-fulfilling attacks on the French franc and other otherwise healthy currencies. The adoption of 30% wide bands of fluctuations in August 1993 in effect meant the end of the fixed exchange regime to which European countries had displayed great attachment. A year earlier, Italy and the UK had found no other solution than to withdraw from the EMS and let their currencies float freely.

3.3. Budgetary effects

Keeping real interest rates low may have two opposite effects on the budget deficit.²⁴ By reducing the interest charge, it contributes to lower the overall deficit. On the other side, a lower debt service may encourage governments to run a higher primary surplus resulting in limited effect on the overall budget. The end effect of financial restraints on, respectively, the overall and primary budget surpluses is studied in Tables 8 and 9.

In addition to the dummy variables constructed from Table 1, these regressions include the output gap to account for cyclical effects. Domestic credit restraints clearly improve the overall budget surplus, by about 2 percentage points on average in the sample (Table 8). The lack of discipline effect is detected but it is not statistically significant (Table 9).

²⁴ For work along similar lines, see Alesina et al. (1994).

Capital controls, on the other hand, are accompanied by deeper deficits, by about one percentage point, but the effect is weakly measured.²⁵ One possible interpretation is that protection from capital movements relaxes fiscal discipline: the primary budget declines by about 2 percentage points. This conclusion should be handled carefully as causality may well run in the opposite direction: governments which run large deficits may be tempted to “bottle in” domestic savings. Controls can be seen as an implicit tax that it may be optimal to include in the overall battery of taxation. This applies to the inflation tax as well, which may help explain the association between financial repression and inflation previously documented.²⁶

Tables 8 and 9

3.4. Growth performance

This section asks whether financial restrictions have affected economic growth in Europe. Theory and empirical evidence from large samples including both developed and developing countries suggest that answer is positive.²⁷ To review the evidence for the countries studied in the previous sections, following Barro (1997) average economic growth (PPP-adjusted GDP per capita) is observed on 7 five-year subperiods. A cross-section time-series regression approach is used, including the variables typically used in the empirical growth literature, along with five-year averages of the two financial restraint variables used in the previous sections.²⁸

²⁵ The result is weak. Depending on the regression technique, the effect of capital controls on the overall budget changes sign. Based on goodness-of-fit criteria, it seems reasonable to conclude that the effect is mildly negative.

²⁶ In private communication, Patrick Honohan writes: “In practice I think that there is a dynamic here: yes, the governments imposed controls knowing it would make deficit finance cheaper and easier, but they also underestimated the size of the quasi-tax, both in terms of the inflation that was unleashed, and in terms of the shadow-price of funds which they never observed. So the existence of controls encouraged a higher than optimal deficit.”

²⁷ Levine (1997) provides a review of both theory and empirical evidence.

²⁸ Saving is not introduced as it is likely to be affected by financial repression and liberalization, see Bandiera et al. (1997).

Table 10 collects the results which are quite poor when using OLS, and quite puzzling when using GLS regression. With OLS, since the sample is limited to European countries with very similar structural characteristics, many of the variables found to be significant in the literature do not discriminate among them, nor is it possible to run a SUR regression.

In most regressions, the beginning of sub-period level of GDP per capita appears with a coefficient slightly higher than the usual 2% estimate usually found in the literature. The focus here, however, is on the role of financial restrictions. In the OLS regressions, the dummy variables are not found to affect growth. The surprisingly better results from the GLS estimation indicate that financial restrictions actually increase growth, each instrument contributing to about 1%. This is a large number which must be taken with suspicion. The more plausible answer is that financial restraints do not adversely affect growth. The efficiency costs seem to be of second order of magnitude, at most.

Table 10

Why then do other studies often find a positive association between financial liberalization and economic growth? It may be that, in the narrower European sample used here, financial repression does not play the discriminating role that it plays in larger samples which include both developed and developing countries. Among European countries, differences in the degree of development of the financial industry are much smaller than in the larger samples used in the literature. As noted by Posen (1995), financial institutions do not emerge in a vacuum, rather they reflect wider features including human capital and the size and influence of the financial establishment. In many developing countries where financial repression occurs financial intermediaries are in early stages of development and may proxy a wider set of market-unfriendly policies. An alternative explanation (see Hellmann *et al.*, 1998) is that, in a second best world where moral hazard creates efficiency losses, financial repression may actually improve the performance of the banking sector.

If confirmed, this would be an important conclusion: it would suggest that limited restrictions to financial services –after all banks and financial markets could still

prosper in the financially repressed parts of Europe— exercise, at most, second order of magnitude effects on growth. The much-vaulted “optimum allocation of resources” would not be sensitive to the kind of domestic and international measures long adopted in this part of the world.

4. Banking effects

Financial repression, affecting both domestic markets and capital movements, is widely understood to stifle competition in the banking sector. Credit ceilings, in particular, when applied bank by bank, in principle freeze market shares. In their detailed analysis of the Italian experiment, Cottarelli et al. (1986) conclude that indeed, credit ceilings reduce competition but they note a number of mitigating factors:

- the possibility that quotas are traded, officially or not,
- the Darwinian adaptability of the banking system to credit ceilings,
- the existence of other regulations (e.g. limits on deposit and/or lending rates, on branch openings, etc.) which already stamp out competition,
- separate collusive agreements (clear in Belgium, France and Italy) which also reduce competition,
- circumvention of ceilings through the creative use of exemptions and/or loopholes.

This section asks whether the removal of financial restraints has had a visible effect on the banking industry. It is often argued that enhanced competition reduces profitability, hence the franchise value of banks, possibility leading to crises.²⁹ Figure 6 presents the celebrated British case. Deep deregulation of the British banking system in the early 1980s led to a shake-up of the industry. Fueled by cut-throat competition on the mortgage market, rent prices (the figure display the ratio of rent prices to the CPI) more than doubled in real terms in a few years, resulting in what is customarily considered a bubble. The bubble burst in the mid-1980s as bad loans came due, prompting a severe bank crisis. Interestingly, as if developers and investors

²⁹ See Caprio and Summers (1996) and Hellmann et al. (1998).

recognized the phenomenon as temporary, the volume of new construction did not follow, even slowing down when the bubble started to grow even faster. Did the removal of credit constraints and capital controls produced similar effects in the three countries reviewed in Section 2?

Figure 6

4.1. Market structure

Figure 7 displays the real rent price index for the three countries surveyed in Section 2, along with the UK for comparison. It confirms the conclusion by Cottarelli *et al.* (1986): in the case of Italy housing prices declined *vis a vis* the CPI when credit ceilings were imposed in 1973, and recovered some of the lost ground in 1983 when the ceilings were removed. The pattern for Belgium and France is less clear. In all three cases, the end of domestic financial repression is not marked by the spectacular rise observable in the UK. In France Jaillet and Sicsic (1998) show that only in Paris did housing prices exhibit a behavior resembling the British one. This suggests that other factors may have continued to restrain competition.

Figure 7

One possibility is collusion. In France the largest banks remained state-owned for several years afterwards and regulation regarding interest rates remains in place; in fact a large part of mortgage credit is subsidized and the corresponding interest rates are set by the authorities. Similarly in Belgium, the banking industry remained officially cartellized until 1992. Another possibility is that competition in the banking sector may be muted because of restrained market behavior in the labor market. The next section evaluates this hypothesis.

4.2. Rent shifting

The top graph in Figure 8 presents a customary measure of bank profitability, net income as percent of total assets, for the three same countries and for two comparator countries with a very developed banking sector, the UK and Switzerland. The graph

suggests two observations. First, the sheltered banks of Belgium and France are less profitable than the others. This could be due to a Belgian-type *quid pro quo* whereby, in exchange for protection, banks agree to limit their profit margins: low risks are accompanied by low returns. Alternatively, this could reflect low returns from lending to the authorities' favorite firms.³⁰

In both cases, one would then expect profits to be related to changes in the regulatory and competitive environment. The removal of protection should lead, possibly after a shake-up of the industry, to improved margins thanks to more lucrative, possibly riskier loans. The second observation, however, is that there is no visible link between profitability and the changing competitive environment of banks. Looking at a large sample of developed and developing countries, Demirgüç-Kunt and Detragiache (1998) also fail to detect a clear link between financial repression (or liberalization) and bank profitability.

Figure 8

Does deregulation affect at all the way banks operate? A possibility is that, as other financial institutions enter the loan market as it is deregulated, bank intermediation declines. The lower graph of Figure 8 displays a measure of intermediation, net profits as a share of total bank assets. There is a clear downward trend in France --but it dates back to the early 1980s, prior to deregulation-- and in the UK after the wave of crises.

Clearly, if deregulation produced important changes in the banking industry, it did not operate through profitability of the banks' portfolio of activity. Figure 9 suggests another explanation. The top chart shows that staff reduction has been a general phenomenon of the last twenty years in Europe. However, the lower chart indicates that this has not been accompanied by savings in labor costs. A number of plausible interpretations arise.

³⁰ Profitability is measured after tax, which may explain some of the differences observed in Figure 7.

A first possibility is technological change. From labor intensive, the banking industry has become capital intensive. A large staff of cheap low-skill low-wage personnel has been replaced with less but better paid high-skill personnel. A second possibility is that the pressure of increased competition has led banks to seek to economize on labor costs but that strong unions have managed to preserve labor's share of income. The contrast between Switzerland and the UK on one hand, with the three EU countries on the other hand, would tend to support the second assumption: in the UK and Switzerland, two countries where union power has been either low (Switzerland) or sharply declining (the UK), labor costs have followed a declining trend while there is no discernible trend in Belgium, France and Italy, where union power in banking has been and remains strong.

Figure 9

Putting together these observations, a plausible hypothesis runs as follows. The end of financial repression increases competition in the banking industry but without affecting profitability. Rents simply shift. In the repressed regime, banks are sheltered and collusion is officially sanctioned; the resulting rent is captured by the government through cheap debt financing. Once repression ends, banks adjust from simple trouble-free low value-added activities to producing more sophisticated and higher value-added products. However, banking services are known for strong brand-loyalty, largely because of heavy switching costs, so rents do not fully dissipate. Instead they are captured by the more professional staff on which banks now crucially depend.

5. Conclusions

This overview of financial repression and liberalization in Europe, as well as other work surveyed, suggests the following ten conclusions.

i. The imposition of quantitative controls on banks do not make controls of monetary aggregates more efficient. In fact, inflation tends to be higher where such controls exist, for good reason. Such controls are usually motivated by two objectives: providing readily available and cheap financing for public sector deficits and

supporting an industrial policy targeted at specific firms and industries or other objectives (e.g. regional development). As a consequence credit remains abundant, and monetary policy becomes far too political to be tightened up easily when the need arises.

ii. Domestic financial repression brings about capital controls. There is no point in preventing some activities or imposing quantitative ceilings if domestic agents can legally and easily circumvent these restrictions by operating on foreign financial markets and transferring funds across borders as they see fit. On the other side, capital controls can be applied to fully liberalized domestic financial markets. This clearly means an order of liberalization.

iii. By reducing nominal interest rates (see (v) below) domestic credit restraints reduce the debt burden and result in lower budget deficits *ceteris paribus*. The finding that the primary budget deficit worsens in the presence of credit restraints and capital controls may indicate that financial repression is often imposed with a view to loosening market-induced fiscal discipline in the public sector.

iv. Restrictions of domestic financial activity reduce competition in banking. Administrative rules lessen the need to compete and, through associated capital controls, shelter banks from foreign competition. The rent is usually captured by the public sector in an implicit *quid pro quo*. In Belgium, France and Italy, liberalization does not seem to have greatly enhanced competition. Rents appear to have shifted towards personnel.

v. The effects of financial restraints on interest rates are mostly disappointing. Credit ceilings do not reduce volatility or the level of nominal interest rates but they succeed in lowering the average real interest rate level, presumably through rationing. Capital controls keep interest rates down but increase their volatility. On the other hand, there is no indication that the suppression of financial restraints raises interest rate volatility.

vi. It may well be that one additional main reason for internal and external financial repression lies in the authorities' concern to uphold the exchange rate regime. A fixed but adjustable exchange rate system tends to lower interest rate volatility but to raise

real interest rates. Putting together, then, the joint effect of a fixed exchange rate regime, capital controls and credit ceilings is to reduce interest rate volatility and to deliver lower real short-term interest rates, leaving nominal interest rates unaffected.

vii. There is no discernible growth effect of financial restraints in the European sample studied here. It may be that the effect exists but is too small to be detected. This is an indication that, for a host of reasons, the much trumpeted distortions of such measures are less serious than (simple) theory predicts. After all France and Italy were considered as stunning postwar successes, as were Korea and Japan, while they were actively stifling financial freewheeling.³¹

viii. At the very least, therefore, capital liberalization should not be seen as a precondition for growth. The view that developing countries should aim at liberalization as soon as possible is certainly not vindicated by the case of Europe.

ix. Credit restrictions seem generally more harmful than capital controls. Since domestic restraints require the presence of capital controls, a reasonable approach is to proceed through liberalization in two steps: first lift domestic restraints, next remove capital controls. The last step should follow the buildup of a competitive domestic banking system and accompanying regulatory capacity.

x. In addition, the lifting of capital controls requires the end of the fixed exchange rate regime, if it was hitherto in place. Reversing that order, liberalizing fix and planning to float next, is a virtual promise of an exchange crisis which may become a full financial crisis. Floatations often come too late.

³¹ Reviewing the postwar performance of France, Sicsic and Wyplosz (1996) find, however, that the high growth rates of the 1960s and early 1970s might have even been higher absent widespread public intervention. Their conclusion is based on evidence of a severe misallocation of resources towards favorite and ultimately declining industries. The state control of financial markets evidently played a role, but a host of other institutions as well, including price controls and pervasive subsidies, education, the structure of the labor market, and a slow ending of trade protection.

References

- Alesina, Alberto, Vittorio Grilli, , Gian Maria Milesi-Ferretti (1994) "The Political Economy of Capital Controls," in: L. Leiderman, A. Razin (eds.) *Capital Mobility: The Impact on Consumption, Investment and Growth*. Cambridge; New York and Melbourne: Cambridge University Press.
- Bakker, Age F.P. (1996) *The Liberalization of Capital Movements in Europe*, Dordrecht: Kluwer Academic Publishers.
- Bandiera, O, Gerard Caprio, Patrick Honohan and Fabio Schiantarelli (1997) "Does Financial Reform Raise or reduce Saving?," World Bank, unpublished paper.
- Barro, Robert J. (1997) *Determinants of Economic Growth*, Cambridge, MA: MIT Press.
- Burda, Michael and Charles Wyplosz (1997) *Macroeconomics, A European Text*," Second Edition, Oxford: Oxford University Press.
- Caprio, Gerard and Lawrence Summers (1996) "Finance and its Reform: Beyond Laissez-Faire," in: D. B. Papadimitriou (ed.), *Stability in the Financial System*, Jerome Levy Economics Institute Series, New York: St. Martin's Press; London: Macmillan Press.
- Caranza, Cesare and Antonio Fazio (1983) "L'evoluzione dei metodi di controllo monetario in Italia: 1974-1983" *Bancaria* 39(9), p. 819-33.
- Cassiers, Isabelle (1997) "La Générale de Banque de 1935 à nos jours: une mise en perspective macroéconomique," in: E. Buyst et al. (eds.) *La Générale de Banque, 1822-1997*, Bruxelles: Editions Racine.
- Cassiers, Isabelle, Philippe de Villé and Peter M. Solar (1996) "Economic Growth in Postwar Belgium," in: N. Crafts and G. Toniolo (eds.), *Economic Growth in Europe Since 1945*, Cambridge: Cambridge University Press.
- Cottarelli, Carlo, Giampaolo Galli, Paolo Marullo Reedtz and Giovanni Pittaluga (1986) "Monetary Policy Through Ceilings on Bank Lending," *Economic Policy* 3, p. 673-94.
- Demirgüç-Kunt, Asli and Erica Detriagache (1998) "Financial Liberalization and Financial Fragility," unpublished paper, World Bank.
- Diaz-Alejandro, Carlos (1985) "Good-bye Financial Repression, Hello Financial Crash," *Journal of Development Economics* 19(1-2), p. 1-24.
- Dooley, Michael P. and Franco Spinelli (1989) "The Early Stages of Financial Innovation and Money Demand in France and Italy," *The Manchester School* 57(2), p. 107-24.

- Eichengreen, Barry and Charles Wyplosz (1993) "Unstable EMS," *Brookings Papers on Economic Activity* 1, p. 51-124.
- Eichengreen, Barry, James Tobin and Charles Wyplosz (1995) "Two Cases for Sand in the Wheels of International Finance," *Economic Journal*, 105, January 1995, p. 162-72.
- Eichengreen, Barry, Andrew Rose and Charles Wyplosz (1995) "Exchange Market Mayhem: The Antecedents and Aftermath of Speculative Attacks," *Economic Policy* 21, p. 249-312.
- Greenwald, Bruce, Joseph Stiglitz and Andrew Weiss (1984) "Information Imperfections in the Capital Markets and Macroeconomic Fluctuations," *American Economic Review, Papers and Proceedings* 74, p. 194-99.
- Hellmann, Thomas, Kevin Murdock and Joseph Stiglitz (1998) "Liberalization, Moral Hazard in Banking, and Prudential Regulation: Are Capital requirements Enough?," unpublished paper, The World Bank.
- Icard, André (1994) "Monetary Policy and Exchange Rates: The French Experience," in: J. O. de Beaufort Wijnholds, S. C. W. Eijffinger, and L. H. Hoogduin (eds.), *A Framework For Monetary Stability*, Financial and Monetary Policy Studies, vol. 27, Dordrecht and Boston: Kluwer Academic, 1994, p. 239-56.
- Jaillet, Pierre and Pierre Sicsic (1998) "Asset prices: relationships with Demand Factors and Credit, and Implications for Monetary Policy," in: BRI: *The Role of Asset Prices in the Formulation of Monetary Policy*, Basle: BRI.
- Jeanne, Olivier (1996) "Would a Tobin Tax Have Saved the EMS?," *Scandinavian Journal of Economics* 98(4), p. 503-20.
- Levine, Ross (1997) "Financial development and Economic Growth: Views and Agenda," *Journal of Economic Literature* 35 (2), p. 688-726.
- Melitz, Jacques (1991) "Monetary Policy in France," Centre for Economic Policy Research Discussion Paper: 509, January.
- Mishkin, Frederic (1991) "Anatomy of a Financial Crisis," NBER Working Paper No. 3934.
- Posen, Adam (1995) "Declarations Are Not Enough: Financial Sector Sources of Central Bank Independence," *NBER Macroeconomics Annual*, p. 253-74.
- Sicsic, Pierre and Charles Wyplosz (1996) in: "France 1945-92," N. Crafts and G. Toniolo (eds.) *Economic Growth in Europe Since 1945*, Cambridge: Cambridge university Press.
- Swoboda, Alexandre (ed.) 1976 *Capital Movements and Their Control*, Leiden: A.W: Sijthoff.
- Vantheemsche, Guy (1997) "La Banque de 1934 à nos jours," in: E. Buyst et al. (eds.) *La Générale de Banque, 1822-1997*, Bruxelles: Editions Racine.

Wyplosz, Charles (1986) "Capital Controls and Balance of Payments Crises," *Journal of International Money and Finance* 5, p. 167-79.

Wyplosz, Charles (1988) "Monetary Policy in France: Monetarism or Darwinism?," *Financial Markets and Portfolio Management*, May, p.xx.

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Table 1. Financial Restrictions in the postwar OECD Area

	Exchange Controls	Credit Ceilings and other domestic restrictions
Country	Year Ended	Period of use
Australia		Early 1960s-82
Austria		1972-75; 1977-81
Belgium	1955-90	Until 1978
Denmark	1950-88	1970-80
Finland		1969-70
France	1950-89	1958-85
Germany	1950-59, 1960-81	None
Ireland	1950-92	1969
Italy	1950-90	1973-83
Japan		1960s
The Netherlands	1950-86	1962-67; 1969-72; 1977-81
New Zealand		Until 1972
Norway		1967-84
Portugal	1950-92	1978-??
Spain	1950-92	1959-66
Sweden		1969-70; 1974-77; 1981-83
Switzerland	1955-66, 1971-80	1962-66; 1969-72; 1973-75
United Kingdom	1950-79	1964-71
United States		1980

Source: Exchange controls from Bakker (1996), p. 220; credit ceilings from Cottarelli et al. (1986), unpublished appendix.

Note: the postwar starting date is conventionally set as 1950.

Table 2. Growth: Belgium and Europe
(Average annual growth in real GDP per capita)

	Belgium	France	North-West Europe
1950-60	2.40	3.65	3.88
1960-73	4.43	4.31	3.50
1973-90	2.07	1.94	1.92

Note: North-West Europe includes Austria, Belgium, Denmark, Finland, France, Germany, Netherlands, Norway, Sweden, Switzerland and the UK.

Source: Cassiers *et al.* (1996)

Table 3. France: Money Growth Targets and Outturns
(% per annum)

	Target	Outturn	German outturn
1977	12.5	13.8	9
1978	12	12.2	11
1979	11	14.4	6
1980	11	9.8	5
1981	10	11.4	4
1982	9	11.5	6
1983	12.5-13.5	11.0	7

Source: Bakker (1996), p. 127.

Table 4. Restrictions in Switzerland

Year	Measures
1955- 1964	“Gentlemen’s agreement” among banks to restrict inflows
1964-66	Deposit requirements on foreign deposits
1964-66	Negative interest imposed on foreign deposits
1971-74	Restrictions on foreign deposits (zero, then negative, interest, margin requirements)
1974-80	Restoration of restrictions on foreign deposits (some retroactively); quota on foreign bond issues
1976-77	Prohibition to import foreign banknotes
1977-79	Prohibition of forward sales with short maturities (<1 year); Ceilings on longer term maturities

Source: Rapport de gestion de la Banque Nationale Suisse, various issues.

Table 5. Effects of financial regulation on the volatility of nominal interest rates
Pooled time series-cross section estimates

	OLS		GLS	SUR		OLS		GLS	SUR
	Fixed effects	Random effects	Fixed effects	Fixed effects		Fixed effects	Random effects	Fixed effects	Fixed effects
	(1)	(2)	(3)	(4)		(5)	(6)	(7)	(8)
Variance of US interest rate	0.39** (0.07)	0.40** (0.09)	0.41** (0.03)	0.39** (0.05)		0.40** (0.06)	0.39** (0.08)	0.40** (0.02)	0.37** (0.05)
Capital controls	0.36** (0.13)	0.38* (0.16)	0.14** (0.05)	0.18* (0.09)		0.19 (0.11)	0.22 (0.15)	0.08 (0.04)	0.10 (0.08)
Credit restraints	0.22 (0.14)	0.18 (0.17)	0.08 (0.07)	-0.13 (0.09)		-0.01 (0.12)	-0.01 (0.16)	-0.10 (0.05)	-0.21** (0.08)
Fixed exchange rate regime						-1.03** (0.14)	-1.01** (0.15)	-0.87** (0.08)	-0.91** (0.10)
Adj. R2	0.28	0.29	0.28	0.26		0.38	0.39	0.44	0.37
S.E.R.	0.98	0.98	0.96	1.00		0.91	0.90	0.89	0.92
N. observations	280	280	280	280		280	280	280	280

Sources: Interest rates: *IFS*, CD-ROM; Capital controls and credit restraint dummy variables constructed from Table 1. The fixed exchange rate dummy is equal to 1 for the Bretton-Woods and EMS periods and countries, 0 elsewhere.

Notes: standard errors in brackets; ** (*) significant at the 1% (5%) confidence level. White heteroskedasticity-consistent standard errors.

Estimation period: 1957-97, unbalanced panel. Annual data are averages of monthly data over the year.

Countries: Belgium, Denmark, France, Germany, Italy, Netherlands, Switzerland, Ireland, Spain.

No reported: constant, post-capital controls and post-credit restraints dummies.

Table 6. Effects of financial regulation on nominal interest rate levels
Pooled time series-cross section estimates

	OLS		GLS	SUR
	Fixed effects	Random effects	Fixed effects	Fixed effects
US interest rate	0.59** (0.04)	0.59** (0.05)	0.59** (0.03)	0.78** (0.06)
Capital controls	-0.68 (0.42)	-0.62 (0.41)	-0.71* (0.34)	-0.57 (0.34)
Credit restraints	0.36 (0.39)	0.36 (0.45)	0.01 (0.27)	0.09 (0.37)
Adj. R2	0.64	0.63	0.83	0.61
S.E.R.	2.55	2.58	2.54	2.63
N. observations	281	281	281	281

Sources: Interest rates: *IFS*, CD-ROM; Capital controls and credit restraint dummy variables constructed from Table 1.

Notes: standard errors in brackets; ** (*) significant at the 1% (5%) confidence level. White heteroskedasticity-consistent standard errors.

Estimation period: 1957-97, unbalanced panel. Annual data are averages of monthly data over the year.

Countries: Belgium, Denmark, France, Germany, Italy, Netherlands, Switzerland, Ireland, Spain.

No reported: constant, post-capital controls and post-credit restraints dummies.

Table 7. Effects of financial regulation on real interest rate levels
Pooled time series-cross section estimates

	OLS		GLS	SUR
	Fixed effects	Random effects	Fixed effects	Fixed effects
US interest rate	0.56** (0.12)	0.55** (0.09)	0.30** (0.08)	0.48** (0.09)
Capital controls	-2.52** (0.50)	-2.01** (0.48)	-1.52** (0.30)	-1.82** (0.32)
Credit restraints	-1.91** (0.49)	-1.49** (0.50)	-2.65** (0.33)	-1.84** (0.27)
Fixed exchange rate regime	1.35* (0.53)	2.26** (0.43)	1.93** (0.38)	1.02** (0.39)
Adj. R2	0.41	0.38	0.64	0.39
S.E.R.	3.17	3.24	3.07	3.21
N. observations	288	288	288	288

Sources: Interest rates: *IFS*, CD-ROM; Capital controls and credit restraint dummy variables constructed from Table 1.

Notes: standard errors in brackets; ** (*) significant at the 1% (5%) confidence level. White heteroskedasticity-consistent standard errors.

Estimation period: 1957-97, unbalanced panel. Annual data are averages of monthly data over the year. *Ex post* real interest rates.

Countries: Belgium, Denmark, France, Germany, Italy, Netherlands, Switzerland, Ireland, Spain.

No reported: constant, post-capital controls and post-credit restraints dummies.

Table 8. The budget surplus and financial regulation

Pooled time series-cross section estimates

Dependent variable: budget surplus (% of GDP)

	OLS		GLS	SUR
	Fixed effects	Random effects	Fixed effects	Fixed effects
Output gap (% of potential)	0.28** (0.09)	0.28** (0.08)	0.35** (0.07)	0.24** (0.04)
Capital controls	-0.85* (0.42)	-0.86* (0.39)	0.31 (0.31)	1.17** (0.25)
Credit restraints	2.03** (0.45)	2.02** (0.48)	1.56** (0.37)	0.92** (0.22)
Adj. R2	0.53	0.54	0.48	0.48
S.E.R.	2.54	2.52	2.59	2.67
N. observations	254	254	254	254

Sources: Budget and output gap: OECD *Economic Outlook* 64, December 1998;

Capital controls and credit restraint dummy variables constructed from Table 1.

Notes: standard errors in brackets; ** (*) significant at the 1% (5%) confidence level. White heteroskedasticity-consistent standard errors.

Estimation period: 1960-97, unbalanced panel. Countries: Belgium, Denmark, France, Germany, Italy, Netherlands, Ireland, Spain.

No reported: constant.

Table 9. The primary budget surplus and financial regulation

Pooled time series-cross section estimates

Dependent variable: primary budget surplus (% of GDP)

	OLS		GLS	SUR
	Fixed effects	Random effects	Fixed effects	Fixed effects
Output gap (% of potential)	0.25** (0.09)	0.25** (0.08)	0.33** (0.04)	0.22** (0.04)
Capital controls	-2.08** (0.35)	-2.09** (0.39)	-1.25** (0.16)	-0.59** (0.19)
Credit restraints	-0.56 (0.54)	-0.53 (0.48)	-0.17 (0.27)	0.29 (0.19)
Adj. R2	0.28	0.29	0.27	0.20
S.E.R.	2.50	2.46	2.55	2.63
N. observations	248	248	248	248

Sources: Budget and output gap: OECD *Economic Outlook* 64, December 1998;

Capital controls and credit restraint dummy variables constructed from Table 1.

Notes: standard errors in brackets; ** (*) significant at the 1% (5%) confidence level. White heteroskedasticity-consistent standard errors.

Estimation period: 1960-97, unbalanced panel. Countries: Belgium, Denmark, France, Germany, Italy, Netherlands, Ireland, Spain.

No reported: constant.

Table 10. Growth and financial regulation

Pooled time series-cross section estimates

Dependent variable: average growth of PPP-adjusted GDP per capita

	OLS			GLS
	No fixed effects	No fixed effects	Fixed effects	Fixed effects
GDP per capita Beginning of sub-period	-0.039** (0.016)	-0.028** (0.007)	0.049 (0.055)	-0.017** (0.003)
Capital controls	0.019 (0.016)	-0.0004 (0.009)	0.029 (0.019)	0.007** (0.001)
Credit restraints	0.001 (0.007)	-0.007 (0.013)	0.029 (0.017)	0.014** (0.001)
Inflation	-0.003* (0.001)	-0.001** (0.0005)	-0.006* (0.003)	-0.002** (0.000)
Openness	-0.068 (0.057)			0.013** (0.002)
Size of government	-0.022 (0.022)			0.012** (0.003)
Higher education	0.354 (0.312)			-0.047** (0.010)
Fertility rate	0.045 (0.053)			-0.008** (0.002)
Adj. R2	0.067	-0.021	0.095	0.72
S.E.R.	0.054	0.056	0.053	0.058
N. observations	69	69	69	69

Sources: GDP, openness (exports plus imports as share of GDP), size of government (share of government employment in total employment): OECD *Economic Outlook* 64, December 1998; Capital controls and credit restraint dummy variables constructed from Table 1; fertility rate and higher education attainment: Barro-Lee data base from NBER website; inflation from *IFS*.

Notes: standard errors in brackets; ** (*) significant at the 5% (10%) confidence level. White heteroskedasticity-consistent standard errors.

Estimation period: 1960-95, subperiods: 1960-64, 1965-69, 1970-74, 1975-79, 1980-84, 1985-1989, 1990-95. Unbalanced panel. Countries: Belgium, Denmark, France, Germany, Italy, Netherlands, Ireland, Spain, Switzerland.

No reported: constant.

Figure 1. Number of bank branches relative to gross income (in DM)

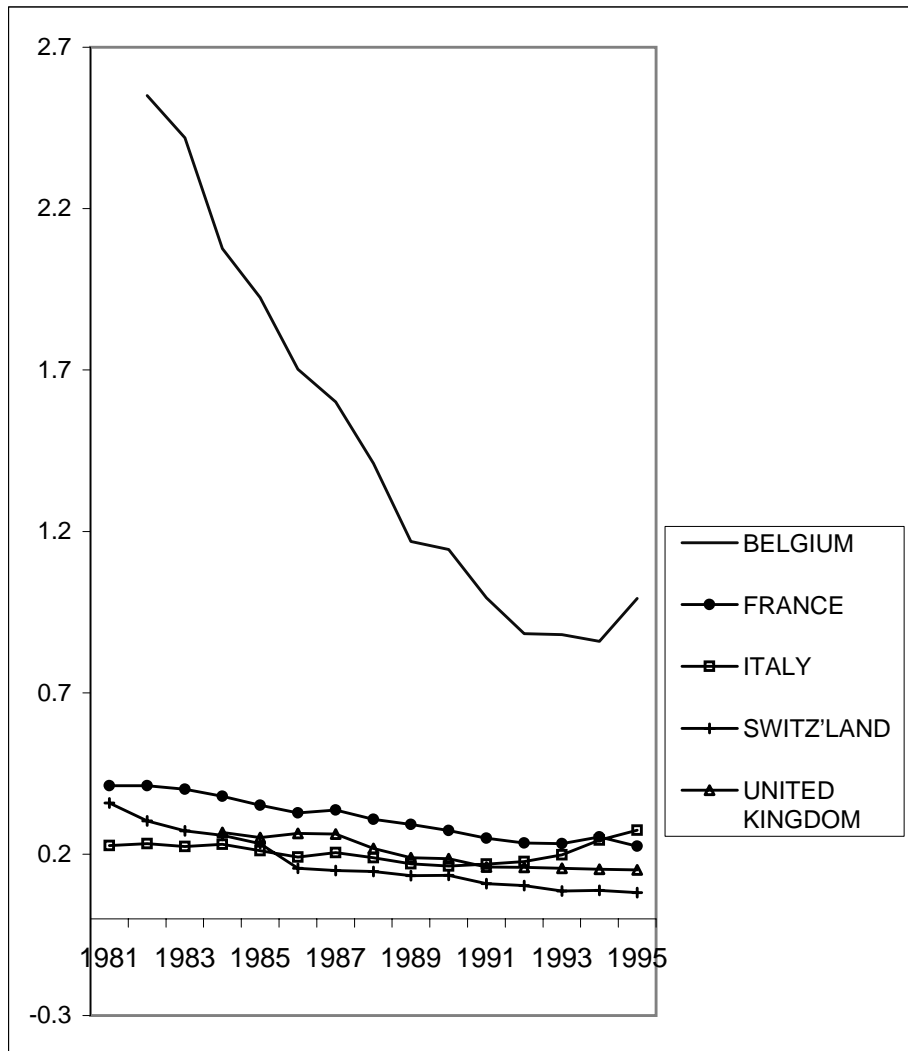


Figure 2. Dual Exchange Rate in Belgium
(Financial vs commercial franc, (% difference))

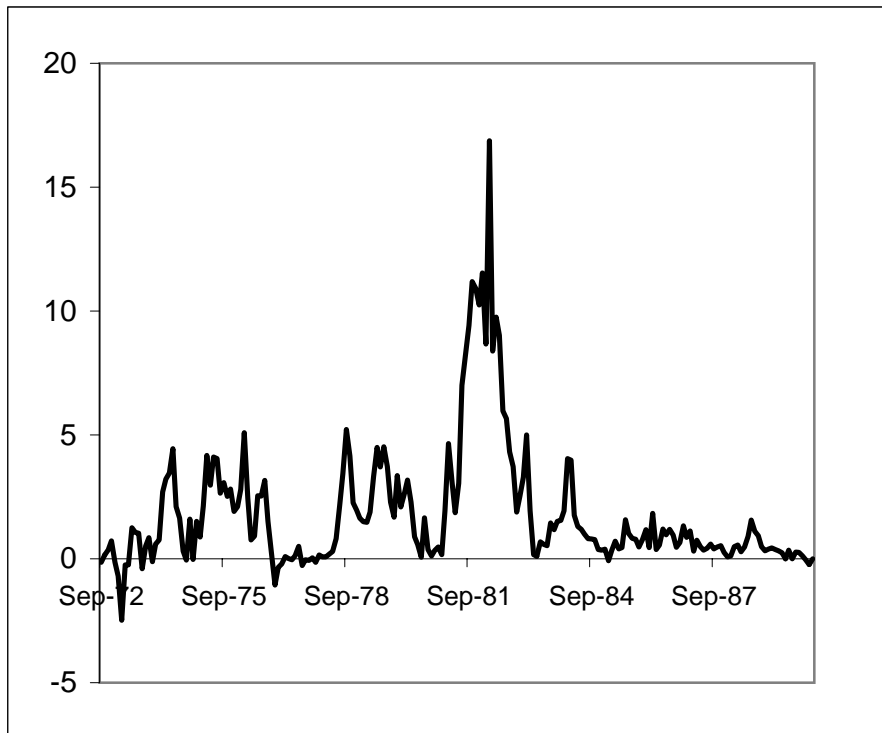
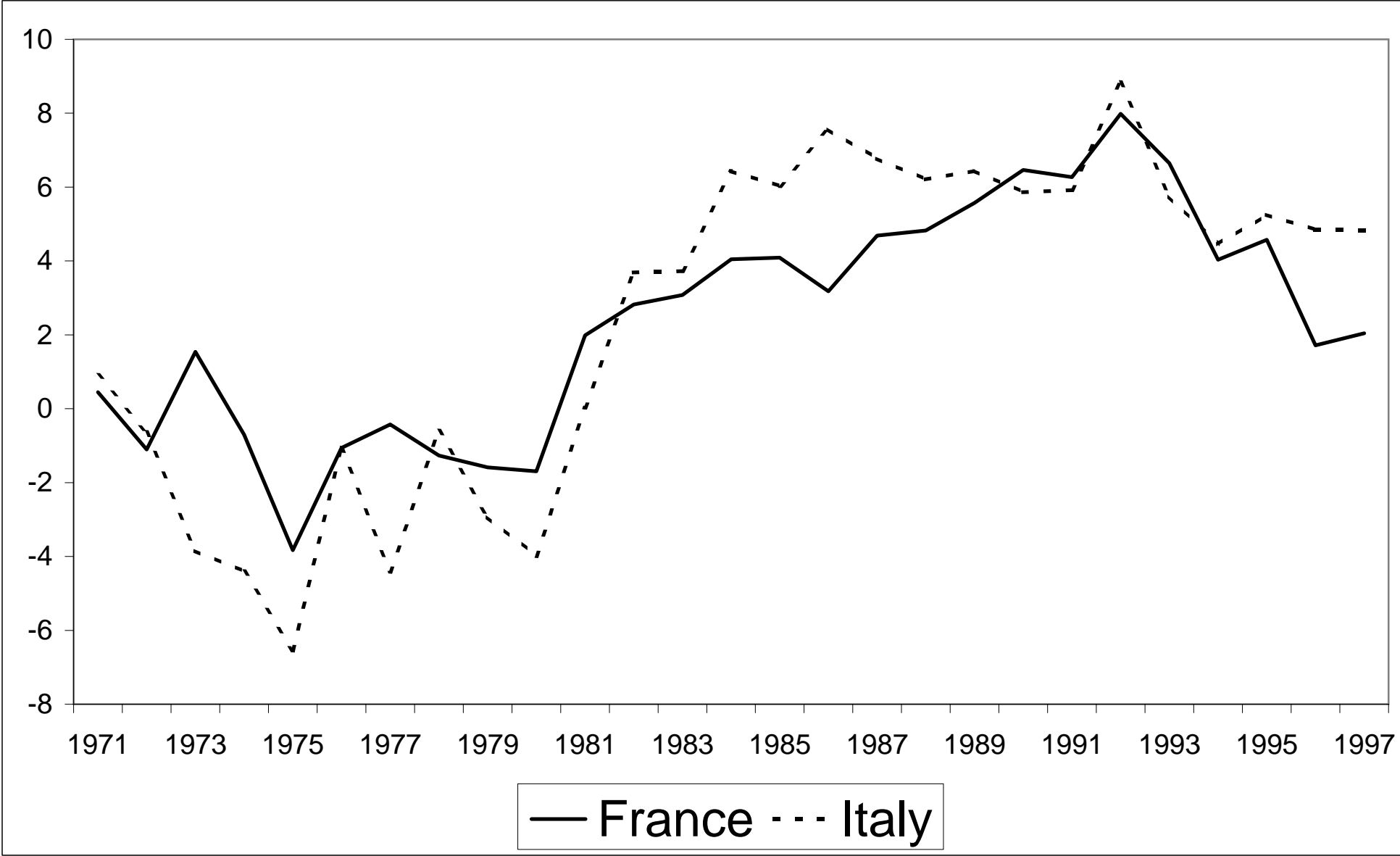


Figure 3. Real Interest Rates
(expost short-term)



Source: IFS

Figure 4. Credit ceilings in Italy

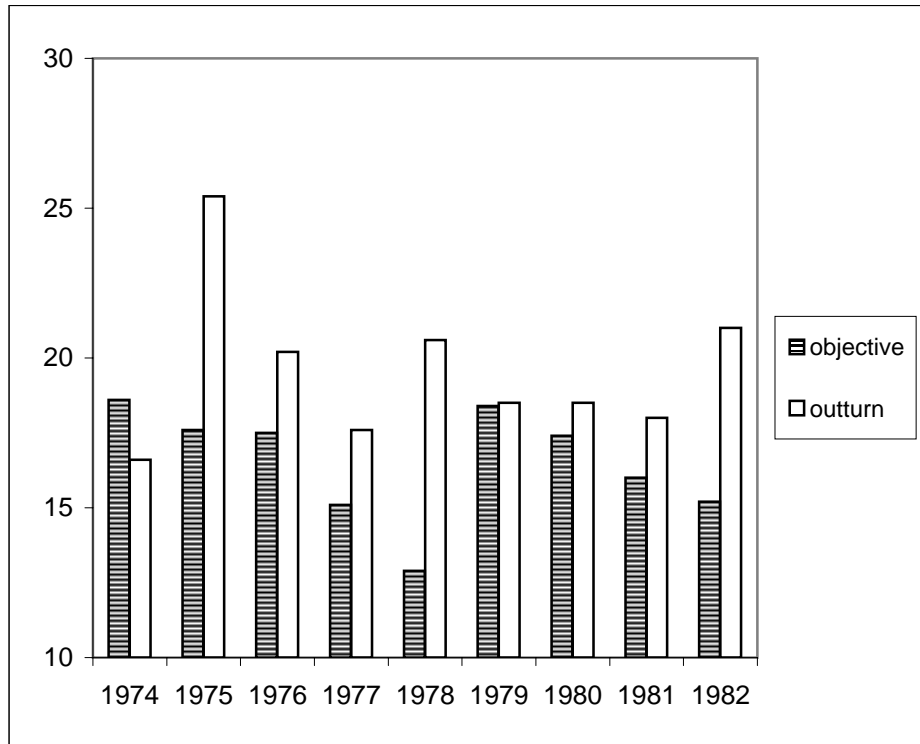


Figure 5. Capital Controls in France
(1979-1987)

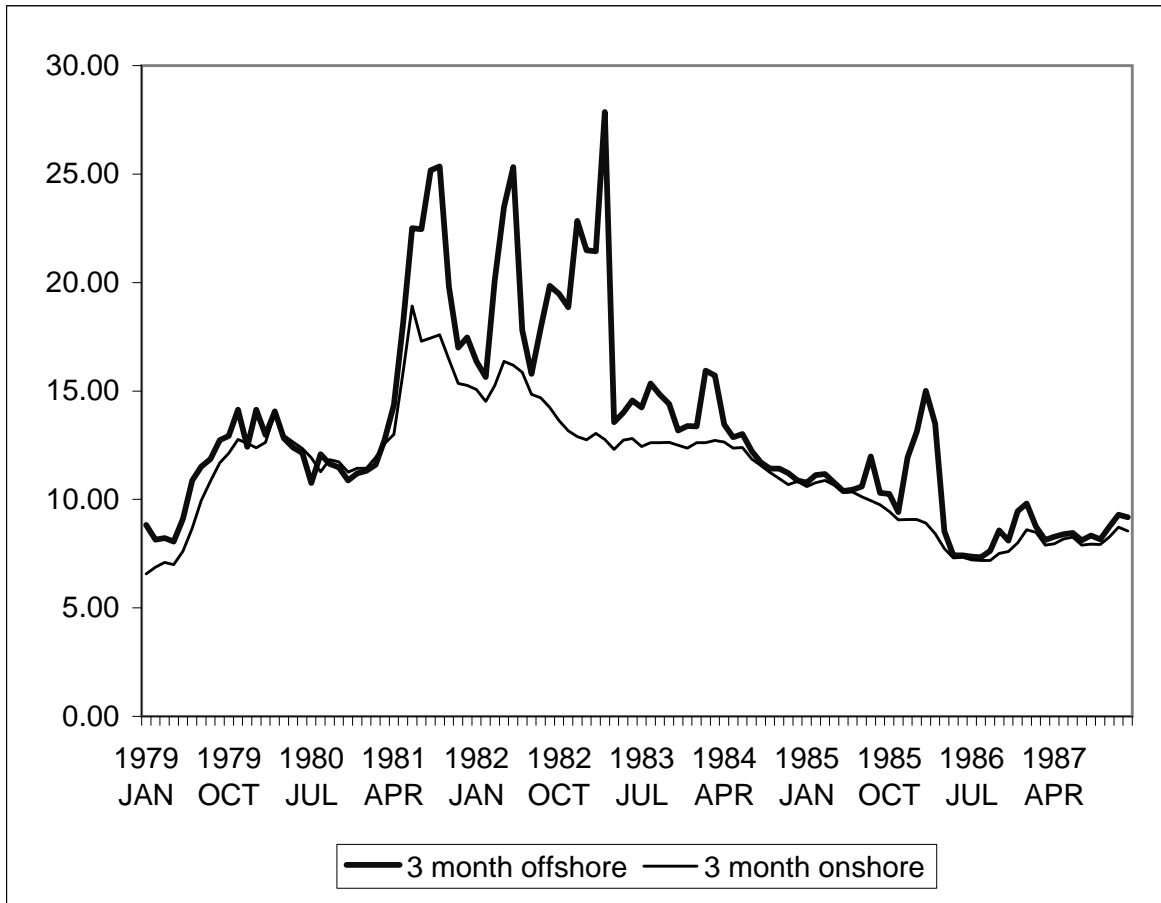


Figure 6. The housing market in the UK
(1960Q1-1997Q2)

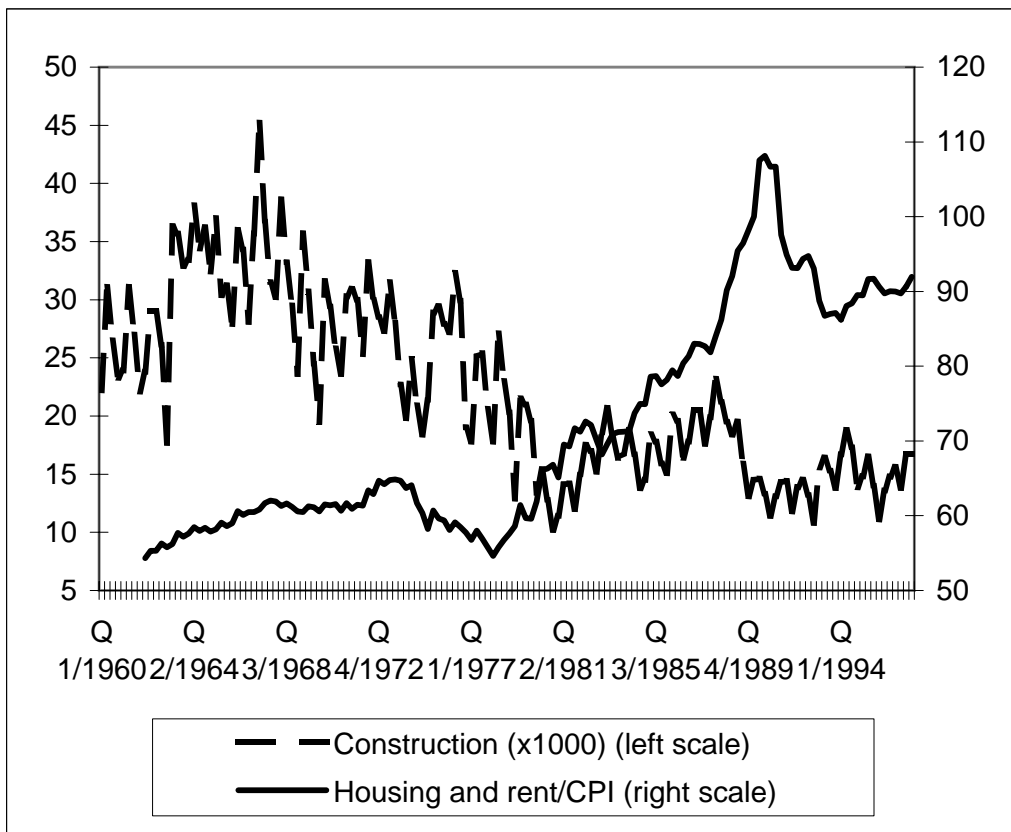


Figure 7. The real price of housing - 1960Q1-1997Q2
(Ratio of housing price to CPI, index 100=1990)

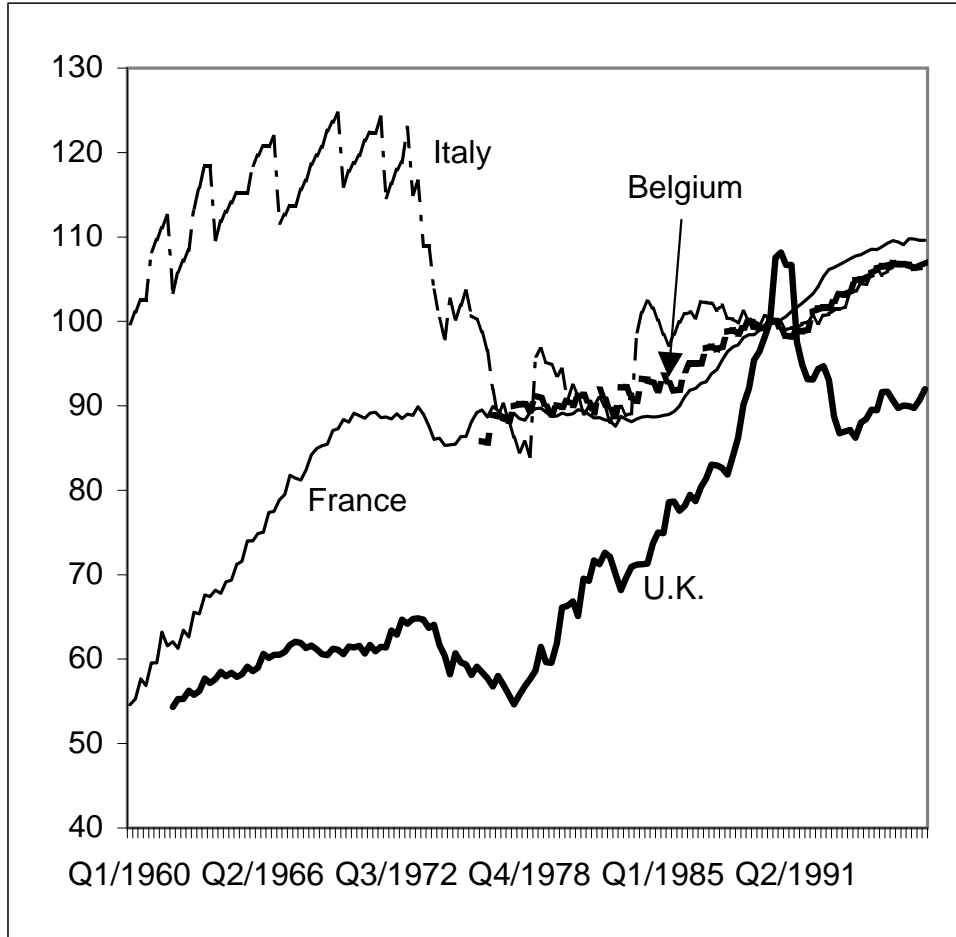


Figure 8. Bank Profitability

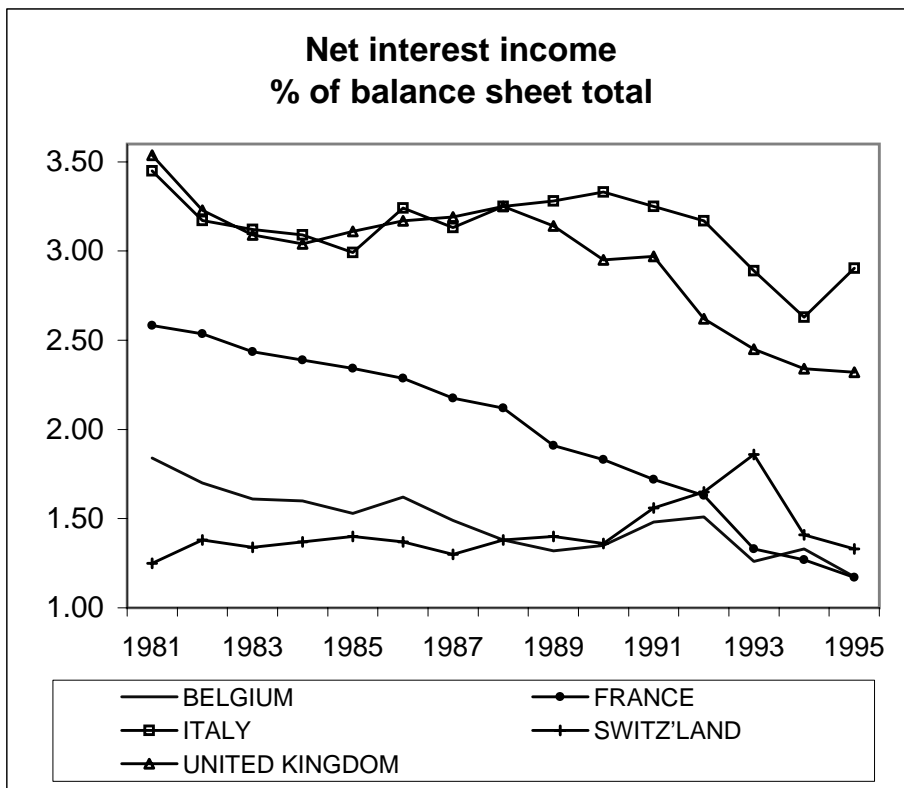
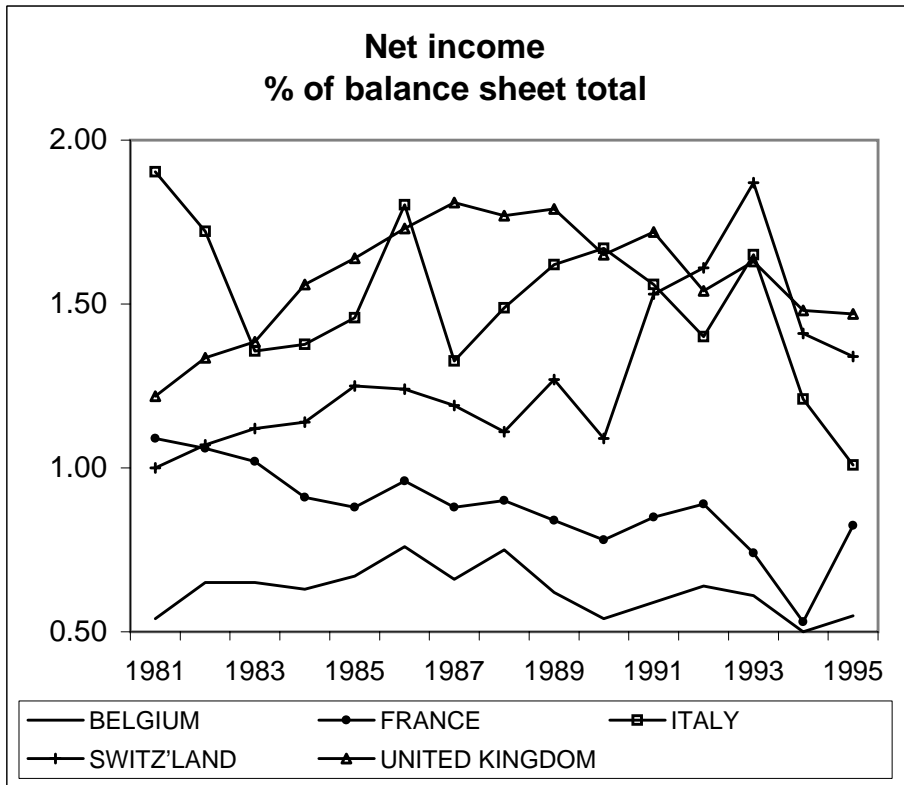


Figure 9. Bank staffing

