CAPITAL MOBILITY AND FINANCIAL REPRESSION IN ITALY, 1960-1990: A PUBLIC FINANCE PERSPECTIVE [1]

Stefano Battilossi[2]

Abstract

After significant headway towards liberalization of capital movements in the early 1960s, European governments resorted massively to capital controls in the turmoil of the demise of the Bretton Woods system. In some countries (Italy among others), what looked like a temporary backlash against incipient financial globalisation caused an escalation of domestic and external controls, leading to a comprehensive and long-lasting regime of financial repression. Why financial repression was so hard to dismantle, in spite of its widely recognized distortionary impact? Why did governments stick so long to sub-optimal policy instruments?

By concentrating on the Italian case, this paper argues that a public finance approach may provide an answer to such questions. More specifically, following the literature on the political economy of capital controls and the fiscal implications of financial repression, the paper suggests that policies increasing revenues from implicit taxation may be regarded as an attempt to postpone the structural change in the established fiscal policy regime that capital liberalization necessarily entailed. As capital controls (and financial repression, more generally) substantially contributed to ease the government's budget constraint under conditions of structural deficit and rapidly rising debt, liberalization was expected to exacerbate fiscal problems.

The paper illustrates the policy measures deployed to increase seigniorage revenues, grant implicit subsidies to the government and enforce financial protectionism. It also provides for the first time an estimation of the economic relevance of revenues from financial repression, which proved to be of a magnitude comparable to revenues from seigniorage. High revenues from implicit taxation (relative to GDP) can be considered a rough approximation of the cost of financial liberalization and may explain why the process of financial reform was slow and controversial.

JEL classification: F30, F40, H20

Key words: Capital controls; Financial repression; Fiscal policy; Italy.

---

[2] Battilossi, Stefano. Department of Economic History and Institutions. Universidad Carlos III de Madrid. E-mail: battilos@clio.uc3m.es

Introduction

After completing trade liberalization and returning to external convertibility for current account transactions in 1958, Western European governments seemed reasonably committed to speed up the process of capital liberalization. By that time, West Germany, Belgium (where a double exchange market operated) and Switzerland allowed virtually complete freedom for capital movements. In the rest of the continent, a more liberal attitude emerged and parts of exchange controls inherited from the interwar period were dismantled (a notable exception being tighter restrictions on the international use of sterling in the UK), and constraints on portfolio investments to some extent relaxed. At the beginnings of the 1960s, the principle obtained the official support by the IMF, the OECD (through its 1961 Code of Liberalization of Capital Movements) and the EEC (through two directives on capital movements liberalization in 1960 and 1962)—let alone the US administrations. (Shafer 1995: 120-125; Bakker 1996: 79-106) Commercial banks were allowed significant freedom, or even encouraged by national monetary authorities to engage in new international transactions that led to the emergence of the Eurodollar market, an international money market based in the City of London and bound to assume soon a global dimension, as a network connecting all main financial centres worldwide (Battilossi 2000).

By the second half of the 1960s however the tide of liberalization had turned. Pressed by mounting balance-of-payment deficits, Washington introduced historically unprecedented restrictions on portfolio and direct investments abroad (Eichengreen 2000). In Europe, in turn, worries arose about the rapidly growing volume of international short-term transactions and their magnification effect on exchange rate and monetary problems. Governments therefore tightened existing regulations and introduced new restrictions— mainly affecting banking transactions and portfolio investments—in order to limit 'disequilibrating' (as they were named by the IMF-based 'Committee of Twenty') capital outflows (in the case of Italy, France and the UK) and inflows (West Germany, and to a much lesser extent Switzerland, Belgium and the Netherlands). The collapse of Bretton Woods recorded the peak of such escalation in the use of capital controls. The very same Committee, however, recognized that restrictions on capital flows could not be expected to be effective in the long run. Rather, they were likely both to harm international trade and

inhibit potential benefits from capital movements. It was unanimously agreed upon that there existed no need whatsoever to turn temporary capital controls into permanent devices. (Lamfalussy 1981: 200-201) Moreover, the shift to flexible exchange rates was expected to provide the degree of monetary independence that governments were looking for, thus further reducing the rationale for capital controls.

In spite of that, and with a few exceptions (West Germany after 1974 and UK in 1979), regulations of capital movement proved die-hard. Indeed, they became fully institutionalised in the framework of a general regime of extensive regulation and restrictions imposed on financial systems. In a number of countries, such regimes of 'financial repression'—including quantity and price regulation of both internal and external financial markets (in the form of credit ceilings, administrative regulation of interest rates, and capital controls)—were dismantled very slowly. Namely, Italy was one of the latest comers, together with Sweden, Norway and France, to promote both domestic (at the mid-1980s) and external financial liberalization (in 1990).

Why what looked like a temporary, possibly minor backlash against enhanced capital mobility and creeping financial globalisation had so durable consequences? Why financial repression was so hard to dismantle, in spite of its widely recognized distortionary impact? Why did governments stick so long to sub-optimal policy instruments? By concentrating on the Italian case, this paper argues that a public finance approach may provide a satisfactory answer to such questions. More specifically, by analysing the fiscal implications of financial repression, the paper suggests that the main rationale for keeping capital controls in force until the second half of the 1980s was an attempt to postpone the structural change in the underlying fiscal policy regime that capital liberalization necessarily entailed. As capital controls (and financial repression, more generally) substantially contributed to ease the government's budget constraint under conditions of structural deficit and rapidly rising debt, liberalization was expected to exacerbate the problem and to require a painful fiscal adjustment. Far from original, this view is based on a voluminous political economy literature on capital controls, seigniorage and financial repression, which is surveyed in section 1. Section 2 outlines the institutional features of the financial repression regime operating in Italy from 1960 to 1990 and illustrates their connection with fiscal policy. Section 3 presents an original quantitative estimation of

revenues obtained from financial repression. This section draws on a method elaborated by Giovannini and De Melo (1993) in order to measure revenue from the financial repression tax in developing countries. Section 4 concludes.

1.The political economy of capital controls and financial repression: a survey of the literature

As suggested recently by Wyplosz (1999 and 2001), financial repression can be regarded as a policy instrument aimed at reconciling consistent preference of European governments for pegged exchange rates (from Bretton Woods to the EMS) with a degree of independence in the use of domestically-geared monetary policy. According to this view, financial repression was a European solution to the 'trilemma', by allowing policymakers to manage exchange rate targets, minimise disruptive effects of capital mobility on the real economy, and limit financial market instability. This view is consistent with usual macroeconomic explanations that argue that governments resort to financial regulation for purposes of stabilization, in order to insulate their economy from external shocks such as changes in international interest rates or speculative attacks against their currency. Such motive, however, seems at odds with large evidence of the doubtful effectiveness of capital controls. It is uncontroversial that governments of industrialized countries succeeded in inhibiting international arbitrage, thus driving substantial wedges (though diminishing over time) between domestic and international interest rates (Marston 1997). However, Shafer (1997: 137) argues that the effects of capital controls on financial quantities of macroeconomic importance are practically unmeasurable. Similarly, Dooley (1995: 3-4) emphasizes that existing data give little support to the view that control programs significantly affected fundamental macroeconomic variables, such as the volume and composition of capital flows, changes in international reserves, or the level of the exchange rate. Similarly, there exists considerable evidence against their alleged ability to prevent speculative attacks on fixed exchange rates. De Gregorio et al. (2000) do not find any significant long-run effect of capital controls on interest rates differential, real exchange rate and volume of capital flows in the case of Chile in the 1990s. Similarly, Edwards (1999) argues that there exists consistent historical evidence that capital controls (especially on outflows) have been largely ineffective, exposed to corruption and of little help to

economic adjustment. A broad consensus view agrees that, in the short-run, controls may allow governments to 'buy time', i.e. to maintain inconsistent macroeconomic policy while temporarily skipping costly adjustment. However, in the long-run, it is highly questionable 'whether or not these yield differentials are large enough and last long enough to enhance the effectiveness of a policy regime in attaining the government's economic objectives' (Dooley 1995: 29-30).

Historical experience of several OECD countries after 1960 also confirms that controlled regimes of capital movements were plagued by leaks and loopholes. Monetary authorities themselves generally expressed a skeptical view as for their effectiveness, which increasingly proved easily circumventable through off-shore financial transactions, and expressed dissatisfaction for their distortionary and asymmetric effects. Why then were they so reluctant to dismantle them? The paper suggests that a public finance approach may provide useful insights to answer this question. According to this view, governments consistently used capital controls together with other domestic measures of financial restriction in order to extract additional revenues from their economy, thus relaxing their budget constraint. Capital controls therefore should be considered not 'per se', but as part of an overall controlled financial regime embracing both domestic and external transactions.

A growing literature, surveyed by Dooley 1995, Johnston and Tamirisa 1998, Schulze 2000, illustrates the long-run fiscal implications of capital controls as part of a wider policy of financial repression. In such perspective, controls (especially on capital outflows) are fundamentally designed to prevent the erosion of the domestic tax base, thus easing the government's intertemporal budget constraint. Literature focuses on three different, though correlated aspects: capital taxation, seigniorage, and financial repression, whose relative importance depends on the government's preference over the distribution of the tax burden (which reflects political factors) and the costs of alternative forms of taxation (which reflect structural-institutional factors).

(1)*Capital taxation*. By limiting secular capital outflow, capital controls may prevent a deterioration of the tax base and enhance government's ability to tax capital effectively (Schulze 2001: 35-36). With few alternative opportunities of investment available in the form of foreign assets, individuals and companies are forced to hold all

their savings in the form of domestic financial assets, which can be taxed far more easily than foreign ones. Constraining the exit option may prove especially necessary in countries where domestic distortions (in the form of political risk or poorly defined property rights, among others) provide domestic investors with a strong incentive to prefer foreign investments, thus leading to underinvestment in domestic capital (Dooley 1995: 18-20). Using a specific public finance approach, Giovannini (1991) argued that, from an individual country's perspective, distortionary capital controls (in the form of a tax on foreign assets) can represent a second-best welfare-improving solution in the presence of potentially high welfare costs of international capital outflows to evade rising domestic taxes (e.g., due to rising government debt). Alternatively, capital controls may be the outcome of a distributional conflict. Alesina and Tabellini (1989) provided a model in which governments, supported by opposed constituencies (workers and capitalists) and with opposed distributional objectives, alternate in power. Polarization and political instability tends to translate into uncertainty about future fiscal policies. As capitalists have incentives to accumulate foreign assets to avoid the risk of future taxation (i.e., the political risk of a hostile government), a workers' government will always find it optimal to impose capital controls.

(2)*Seigniorage*. The literature emphasises that capital controls are vital also for governments which resort to inflationary finance (i.e., monetisation of deficit via borrowing from central bank) in order to raise a high share of their revenues from the process of creating fiat money. As demonstrated by Sargent (1986 and 1999), inflationary finance has two different, potentially offsetting consequences on public revenue. Although an increase in the rate of monetary expansion increases the seigniorage tax rate (which increases total seigniorage), it also tends to raise the equilibrium rate of inflation and the nominal interest rate, thus reducing the inflation tax base because of reduced demand for real money balances. (Roubini and Sala-i-Martin 1995: 289-290) As a consequence, governments face a Laffer curve along which, beyond a given point, the increase in revenue produced by rising seigniorage rate is more than offset by a shrinking tax base, thus leading to lower levels of real revenue (Champ and Freeman 2001: 65-69). Similarly, inflationary finance may have a negative impact on real tax revenue through the Olivera-Tanzi effect, leading to substantial losses in revenues from regular taxation in the presence of sizable collection

lags (especially in developing countries where specific taxes play a larger role than progressive income taxes) (Tanzi 1977 and 1989).[3]

As free capital mobility under conditions of rising inflation usually causes substantial currency substitution (Fisher 1982; Giovannini and Turtelboom 1994), capital controls may prove a second-best instrument which contributes to limit the erosion of the base for the inflation tax. This may result particularly appealing for governments forced to rely heavily on seigniorage because of substantial tax evasion due to large underground economies (Nicolini 1998). More generally, as an inward shift in the money demand function can be considered the most likely effect of liberalization, as savers substitute away from domestic towards foreign currency deposits, Giovannini (1989: 185-188) suggested that, with capital controls, a government may need a lower inflation rate to generate a given tax revenue. Consequently there may exist a trade-off between restrictions on capital flows and a heavier use of inflationary finance.

A critical point that emerges from the literature is the role of financial intermediaries, namely commercial banks (Romer 1985). Although models of seigniorage usually take only currency held by the public into account, Brock (1984 and 1989) pointed to the fact that in a large number of countries the tax is also levied on borrowers and lenders through high reserve requirements or liquid asset ratios imposed on the banking system— i.e., forced holdings of non- or low-interest bearing assets, which artificially raise the demand for money, thus expanding the inflation tax base. As a consequence, a correct measure of seigniorage must consider total reserve money (including both currency and bank reserves) as the inflation tax base.[4] This clarifies the fiscal relevance of capital controls on international banking transactions. If residents could use off-shore financial intermediaries with no restrictions, the tax base represented by bank reserves would result significantly eroded. Thus, as Drazen (1989: 14-15) emphasised, liberalization of capital transaction would largely remove seigniorage as a source of revenue not only through lower inflation (the tax rate) but also through reduced tax base. Convergence towards the less restrictive banking regulation would in fact be necessary in order to guarantee the

---

[3] The normative policy recommendation that resort to inflationary finance should be minimized when collection lags are significant was questioned by Dixit 1991 and reaffirmed by Tanzi 1992.
[4] Spaventa (1989) stresses the relevance of such issue for policy purposes, in the context of the debate on optimal seigniorage.

competitiveness of domestic banks, thus leading to a fall in reserve holdings. Capital controls may allow a government to offset the loss of seigniorage due to a reduction in the tax rate by increasing reserve requirements (the largest part of the seigniorage tax base). As a consequence, capital controls represent a vital policy instrument for governments living in a high-seigniorage regime. Although literature largely focuses on controls on capital outflows, Brock (1984) argued that there also exists a public finance rationale for controls on capital inflows after capital account liberalization. Namely, reserve requirements on capital inflows may provide an additional revenue that ca more than offset the loss stemming from opening the capital account. The hypothesis is consistent with the observed path of development in Latin American countries in the 1990s. Here capital controls on capital inflows, implemented as temporary devices in the face of post-liberalization external shocks, have generally outlived the crisis and turned into permanent features of the incentive structure of the economy (Reinhart and Smith 2001).

(3)*Financial repression*. Following McKinnon (1973), financial repression is defined as 'the set of policies, laws, regulation, taxes, distortions, qualitative and quantitative restrictions, and controls imposed by the government, which do not allow financial intermediaries to operate at their full technological potential' (Roubini and Sala-i-Martin 1999: 279). This definition covers a wide set of regulations, either domestic (such as credit ceilings, regulation of domestic interest rates, compulsory credit allocation, high reserve requirements and liquid asset ratios, portfolio constraints) and external (such as prohibition of, quantitative controls on and tax discrimination against residents' holdings of foreign financial assets). The major first-order consequence of financial repression is that it allows low or even negative real interest rates. While governments usually present financial repression as a growth-enhancing policy, its fiscal implications—i.e. reduced costs of domestic borrowing by the public sector—are particularly appealing. In fact, financial repression represents a 'tax-like' method of financing government deficits.

Giovannini and De Melo (1993) regarded financial repression as a policy based on a combination of restrictions (price and/or quantity) imposed on domestic financial sector and controls on international capital flows (in order to avoid circumvention of restrictions through off-shore intermediaries), that translates into an artificially low cost of domestic funding and provides an additional source of revenue for the government. Revenue from

8

financial repression is particularly appealing to governments that face uneven effective income-tax rates (because of systemic corruption or large variations in the government's ability to verify income across social groups). Indeed, Bai et al. (2001) suggest that, in such cases (typically, in developing countries) implicit taxation through financial repression may prove more egalitarian, allowing authorities to tax savings of all individuals at similar rates. By forcing captive buyers to hold government debt at interest rates below market yields, interest costs are cut off and the government's recorded deficit reduced. The largest captive buyers are usually commercial banks. Fry (1997: 69-76) argued that, by setting high reserve requirements, governments can borrow indirectly from the banking system at zero cost. Moreover, the government can impose portfolio constraints in the form of high liquid asset ratios and set government securities as the only asset eligible for meeting the requirements, thus borrowing directly from the banking system at below-market rates. Finally, by regulating interest rates, governments can limit competition for loanable funds from the private sector. In general, financial repression represents an alternative method to increase the flow of domestic resources to the public sector, without having to resort to higher tax rates, inflation rates or interest rates.

Obviously, financial repression can be effectively implemented only in a regime of financial protectionism with limited possibilities for investors and intermediaries to enter external transactions. This is why capital controls can be considered a method of financial repression with relevant fiscal implications. Aizenman and Guidotti (1994) argued that, in the presence of high tax collection costs (as in the case of developing countries), capital controls may represent a welfare-enhancing second-best instrument. By introducing a wedge between the international and the domestic real interest rate, they reduce the domestic equilibrium interest rate at which the government refinances its domestic debt (i.e., a form of seigniorage on government liabilities), thus reducing the amount of revenue to collect from taxes. One can also expect that the utility assigned to revenue from financial repression increases with the size of the public debt. Following Alesina and Tabellini (1989), this preference is likely to be exacerbated by political instability, when the current government does not fully internalize the future costs of debt servicing and deliberately resort to overborrowing.

(4)*The seigniorage-repression connection.* The literature emphasises the potential complementarity and interaction between inflationary finance and financial repression. Lower real interest rates due to higher inflation tends to translate into savings on government liabilities (in the form of decreased real value of outstanding government debt) and, ceteris paribus, into decreased demand for money in favour of interest-bearing government bonds. At the same time, financial repression entails financial underdevelopment (in the form of a limited array of financial instruments available in the economy) and low nominal interest rates: this tends to increase the demand for money, thus expanding the seigniorage tax base. The same holds for regulation on reserve requirements, which can be used in order to artificially increase the demand for high powered money (if required reserves are in cash). This may allow governments to extract the same amount of seigniorage revenue by resorting to relatively lower inflation rates.[5] Things may change however once a dynamic approach is substituted for a static view. As Drazen (1989: 15) pointed out, in the long run low returns to savings tend to reduce the accumulation of income-producing (thus, tax-producing) private assets, which affects negatively the regular tax base over time. There may exist therefore a trade off in the intertemporal budget constraint between high revenue from seigniorage and financial repression in the short-run and lower revenue from regular taxes in the future.

Capital controls magnify the complementary relation between seigniorage and financial repression. When holdings of both government assets (i.e., money and domestic bonds) are taxed, and the exit option is not viable, attempts to evade from one tax tend to increase the base for the other tax. As they reinforce one each other, inflation tax and financial repression tax are used together in many developing countries. (Schulze 2000: 46-47) Complementarity may break down, however, with very high rates of inflation. If real rate of return on domestic investments is too low, a flight to safety (gold or foreign assets) may occur in spite of substantial transaction costs and high risk of penalties. Domestic financial markets would dry out and money demand drop, thus reducing the inflation tax

---

[5] In the context of a wider debate on the consequences of financial repression on growth—which is beyond the scope of this paper—a number of models have also been elaborated to test the impact of financial repression on inflation. Sussman (1991) argued that financial repression (narrowly defined as a tax on interest income from bonds) always leads to a reduction both in the rate of capital accumulation and inflation. Gupta and Lensink (1997) present a simulation model in which financial repression, in the form of borrowing from

base: in this case, financial repression and inflation tax tend to become substitutes. (Giovannini-De Melo 1993: 955)

We can conclude, with Dooley (1995: 36), that '…these recent results suggest that fiscal considerations are the most important determinants of the use of capital controls and that the controls, or some other factor highly correlated with the use of controls, have measurable effects on government revenues'. In fact, Alesina et al (1994) found for a sample of 20 OECD countries in the period 1950-1989 that evidence for capital controls was consistent with an inflation tax explanation. Specifically, capital controls reduce the possibility of portfolio diversification into foreign currency assets, thus limiting the ability of individuals to avoid the inflation tax and facilitating the imposition of administrative regulation designed to keep domestic interest rates artificially low. For a different sample of 19 industrialized and 42 developing countries in the period 1966-1989, Grilli and Milesi Ferretti (1995) provided evidence that capital controls are closely associated with higher inflation, higher reliance on seigniorage as a share of total revenues, and lower real interest rates.

Finally, considering capital controls as part of a financial repression regime can also shed light on why the process of financial liberalization may be controversial, retarded or slow. As controls are geared primarily to ease the government's budget constraint, their removal implies an overall reduction in the base for capital levy and implicit taxes and a reduction in total revenues from these sources. Capital liberalization thus requires a structural change in fiscal policy, namely a reduction of fiscal deficit and a far higher reliance on regular income taxation (other than capital). Benefits from financial liberalization should therefore be weighed against its potential costs in term of tighter revenue constraints (Dooley 1995: 17). One can rationally argue that the higher the expected loss of revenue under alternative monetary and capital regime, the more controversial will result a government's decision in favour of financial liberalization. This view is broadly consistent with a signalling model of capital-account liberalization. Bartolini and Drazen (1997a) argued that governments with poorly developed regular tax systems tend to rely heavily on financial repression, so that they attach a high value to such

---

the banking system at a concessional rate and taxing interest income on government bonds, leads to similar results also in the long-run.

source of revenue. Having most to lose from free capital mobility, they have stronger incentives to enforce regulation that 'traps' capital on-shore, thus broadening the domestic tax base. Maintenance of capital controls may convey bad expectations about future fiscal deficits; conversely, governments will remove capital controls—usually as part of a general programme of financial liberalization—in order to signal 'good fiscal news' and its commitment to a permanent structural change in policy regime, i.e. to free capital mobility in the future. This is consistent with the evidence that in the 1990s, under conditions of low world interest rates, financial liberalisation have been usually followed by large capital inflows in liberalising countries (Bartolini and Drazen 1997b).

2.Implicit taxation and financial protectionism in Italy: stylized facts

In their *Monetary History* and in a recent paper, Fratianni and Spinelli (1991 and 2001) argued that a regime of fiscal dominance was in force in Italy in the 1970s and emphasised the extraordinarily high seigniorage extracted by the government—a level with no antecedents in peacetime in the country's history.[6] Italy was far from an exception in Europe however. A number of studies (Brock 1984; Drazen 1989; Grilli 1989) provide evidence of the existence of a high-seigniorage club of countries in Europe in the 1970s and early 1980s. As Table 1 illustrates, relatively higher seigniorage was not the only feature they had in common. The financial structures of countries in the club—including Spain, Portugal and Greece—shared other characteristics, namely higher inflation and larger budget deficits, relative to their neighbours in Northern Europe. Southern countries (not only: see also Ireland for example) showed also a significantly higher monetary base (over broad money) and a much higher demand for reserves (as measured by reserve to total bank deposits ratios), usually associated with reserve-demand generating regulation imposed by governments on domestic banking systems (i.e., financial repression). The Italian case can therefore provide a useful basis for comparison with the recent historical experience of other countries in Europe and elsewhere.

---

[6] In a recent paper (Fratianni and Spinelli 2001), they suggested that fiscal dominance was the ruling monetary regime throughout the whole history of the country since the late 19th century.

Table 1
Selected characteristics of financial systems in a sample of industrialised and developing countries, 1979-83

	Seigniorage/ GDP ratio	MB/M2 ratio	Bank reserves/ deposits ratio	Inflation rate[1]	Budget deficit/ GDP ratio[2]
USA	0.3	9.5	2.8	8.5	3.4
Japan	0.5	10.7	2.5	4.1	6.8
UK	0.2	15.4	4.0	10.6	4.6
West Germany	0.2	18.2	9.7	4.9	2.0
France	0.6	9.0	2.0	11.1	2.1
Belgium	0.2	23.1	1.4	6.8	10.4
Netherlands	0.5	9.5	0.5	5.1	6.2
Sweden	0.6	13.4	2.8	9.6	8.4
Italy	1.9	21.8	13.9	15.6	11.6
Ireland	1.0	27.2	10.3	14.7	14.1
Greece	3.8	33.2	17.0	19.8	6.3
Spain	4.1	18.6	9.4	13.5	5.2
Portugal	4.9	26.2	13.4	19.5	10.4
South Korea	0.6	24.9	12.0	14.3	2.3
Argentina	8.5	47.1	34.5	96.6	4.7
Brazil	2.3	44.5	17.9	66.3	2.5
Chile	6.9	45.4	18.2	22.1	-1.8
Mexico	6.2	58.2	49.1	36.2	6.5

[1] Continuously compounded CPI inflation rates.
[2] Conventional deficits (government expenditure, including interest costs, minus government revenue, excluding borrowing).

Source: Fry 1997, Statistical Appendices. Data from IMF's International Financial Statistics and World Bank's World Data.

Following the literature surveyed in section 1, the paper suggests that financial repression, both domestic and external, was used to mitigate the fiscal crisis induced by a permanent shock on government's expenditure, brought home by demographic, social and political factors. The years 1960-1990 represented the lengthiest period of fiscal expansion in the history of the country. (Franco 1993) Tax policy adjusted to the shock only gradually, mainly due to insufficient revenue from regular taxes, poor monitoring and lax enforcement, thus inducing governments to resort sistematically to implicit taxation. In Italy, the specific institutional set-up of monetary policy, which allowed little economic independence to the central bank and was largely based on administrative controls of dirigistic nature, paved the way to inflationary finance and financial repression. The story

13

proposed is far from original and draws on recent literature on the political economy of financial repression in developing countries. As Roubini and Sala-i-Martin argued (1995: 291), countries with reduced tax base and large tax avoidance and evasion, tend to have small elasticity of public revenue to income tax rate and high elasticity of public revenue to the level of financial development. As a consequence, their governments prefer to resort more intensively to inflationary finance and financial repression than to regular tax levy. In the same vein, Alesina et al. (1994) suggested that capital controls can be related to specific attributes of political and institutional systems: e.g., weak governments or institutional settlements that cannot enforce effective collection of normal taxes; or central banks dependent of governments, thus unable to resist inflation and financial repression designed to preserve the inflationary tax base.

The approach adopted here is the traditional 'static' connection between budget deficits, inflation, interest rates and money creation (King and Plosser 1985). Under conditions of fiscal dominance, tax and spending policies are exogenous. The government, by raising the permanent level of taxation less than the level of expenditures, monetises part of any budget. Hence, an intertemporal positive correlation between budget deficit, money growth and inflation rate is established. (Sargent and Wallace 1981; Fratianni and Spinelli 2001) Since revenues from implicit taxation contribute to ease the government budget constraint, monetary authorities have an incentive to resort to specific regulations and controls in order to artificially support the demand of financial assets that represents the base of implicit taxes—i.e., monetary base and public debt. Three issues, therefore, appear of particular relevance from a historical point of view: the relative inefficiency of the Italian tax system, the lack of economic independence of the central bank, and the emergence of a comprehensive regime of financial protectionism.

(1)*Inefficiency of the tax system*. In the 1960-1990 period, as Figure 1 shows (see Appendix), the growth rate of regular tax revenue fell behind relative to expenditures, thus producing a structural budget deficit to be monetised or financed through debt. The Italian tax system can be considered relatively inefficient in the sense proposed by Cukierman et al (1992), in that facilitated tax evasion and relied significantly on inflation tax, acting as a constraint on the revenue collecting capacities of the government. As Table 2 shows, the ability of the system to raise regular taxes remained long below European standards.

14

Table 2
Public expenditures and tax revenue in Italy, 1960-1990

Total expenditures as % of GDP

	1960	1965	1970	1975	1980	1985	1990
EEC compound average[1]			36.8	44.1	46.2	48.9	46.6
Italy	28.5	32.7	32.8	40.5	41.7	50.9	53.2

Regular tax revenue (direct, indirect, and social contributions) as % of GDP

	1960	1965	1970	1975	1980	1985	1990
EEC compound average[1]			34.6	36.9	39.5	41.3	40.5
Italy	25.8	27.4	26.8	26.7	31.0	35.6	39.5

[1] Italy excluded
Source: Morcaldo 1993, Tab. 1.10 and 1.12,: 49-51.

Post-war governments inherited a chaotic and largely inefficient tax system from the fascist regime, mostly based on indirect taxation. A tax reform was passed in 1951 which introduced a compulsory income tax return, broadened the tax base and slightly increased the tax rate. The reform produced a substantial increase in the regular tax revenue. However, massive tax avoidance and evasion continued, due to bureaucratic inefficiencies and loose controls. In the early 1970s, Italy ranked 13th in Europe as to government revenue-to-GDP ratios (18th if social security payments were excluded), and showed the higher ratio of indirect taxation and the lower ratio of direct taxation on total revenue. (Podbielski 1974: 68) A second tax reform was implemented in 1973-74 that eventually brought the Italian system to converge towards European standards. A value added tax was introduced, direct income taxation was rationalised and an official record of taxpayers was created. In both direct and indirect taxation, however, avoidance and evasion were only slowly reduced, due to inefficient controls whose main beneficiaries were companies and self-employed workers. New ad hoc measures were therefore adopted in 1984 in order to tighten controls on such categories. Nevertheless, in the long run the reform led to a substantial increase in regular tax revenue (as a share of GDP), though principally due to significant gain in efficiency in taxing employees' income as well as to the fiscal drag effect induced by inflation. At the end of the 1970s, for the first time in history, revenues from income tax exceeded those from indirect taxes.

(2)*Economic dependence of the central bank.* For a long period, monetary base creation through the Treasury channel remained out of control of the central bank. Using the definition proposed by Grilli et al. (1991), the Bank of Italy enjoyed substantial political independence but little economic independence of the government. The Treasury could finance part of its budget deficit by borrowing from its overdraft account with the Bank freely and virtually at zero interest, the only constraint being that the net borrowing position not exceed 14% of total expenditures approved in the government budget.[7] Direct monetization of budget deficit through this channel[8] was particularly large between 1969 and 1976, and again in the 1980s when monetary and financial markets signalled an incipient crisis of confidence. The placement of government securities with the Bank was an additional channel of financing the Treasury in monetary base. This practice escalated from 1975 to 1981, when the Bank acted as automatic buyer of last resort in primary auctions of short-term Treasury bills (BOT, Buoni ordinari del Tesoro), generally reserved to commercial banks and other financial intermediaries. As interest rates offered where often below market conditions, this mechanism translated into automatic monetization of public debt, thus imposing a heavy constraint on monetary policy.[9] Only in 1981 such practice was discontinued (the so called 'divorce' of the Bank from the Treasury) and resort to domestic markets for short-term government securities intensified. As a consequence, the burden of financing budget deficits was gradually shifted from inflationary finance to public debt, as shown in Figure 2 (see Appendix).

(3)*Fiscal implications of financial repression.* Administrative regulations and controls, both domestic and external, can be viewed as measures aimed to artificially increase the private sector's demand for monetary base and public debt. This tends to

---

[7] The Bank of Italy, through its provincial agencies, acted as treasurership on behalf of the state. Transactions were daily registered in an 'ad hoc' overdraft account held by the Treasury with the Bank. A 1% nominal interest rate was applied to Treasury's borrowing. The 14%-of-expenditure ceiling was introduced by central banking reform acts in 1947-48. The latter established also that extraordinary anticipations from the Bank to the Treasury required a prior act of approval by the Parliament.

[8] An additional borrowing channel for the Treasury and the consolidated public sector were post savings. The Post Office collected savings mainly through postal bonds. These funds were transferred to the Cassa Depositi and Prestiti, an operating arm of the Treasury specialised in financing local governments. The Treasury systematically resorted to borrowing from its overdraft account with the Cassa. In fact, until the 1980s the Bank of Italy considered post savings as part of the monetary base.

[9] Technically, when the Bank purchased Treasury bills in the primary market, a credit in favour of the Treasury was created in the treasury current account, so that creation of monetary base was indirect. Direct

16

increase the flow of resources the government extracts from the private sector through implicit taxation. The issue was addressed first in an early paper by Bruni et al. (1989: 215-218). They argued that administrative controls on financial markets were used to support both seigniorage and demand for government bonds, and intuitively suggested that such controls could be thought of as a form of 'implicit taxation'.[10] However, they did not address explicitly the issue of financial repression, nor provided any quantitative estimation of the size of this flow of resources (see section 3).

a)*Seigniorage-increasing regulation*. As illustrated in section 1, in a fractional-reserve banking system, reserves held by banks with the central bank make up most of the tax base from which governments extract seigniorage revenues. Until 1975, the expansion of the reserve component of the inflation tax was constrained by a number of specific regulations allowing banks significant privileges, with negative consequences for the efficient use of reserve requirements as an instrument of monetary policy. From 1947 to 1962, maximum reserve coefficient remained at 25% of the outstanding stock of deposits, and requirements varied according to categories of banks and deposits. Banks were allowed to meet their reserve obligation either by depositing currency or Treasury bills. In 1962, the coefficient was reduced to 22.50%, but only special treasury bills, issued at request by the Treasury, were declared eligible for reserve purpose, as an alternative to currency. In 1965 however commercial banks were again allowed to meet reserve requirements on saving deposits (not on sight deposits) by depositing government and government-guaranteed bonds. The system tended to increase banks' demand for government securities at below-market rates, as interest on Treasury bills was officially set as equal to the discount rate and yields on government bonds were stabilized (in 1966-69) by a pegging policy. Only in 1975 a reform was enforced in order to artificially force the demand for reserve from the banking system. A uniform marginal reserve requirement of 15% was introduced, and the Treasury was given the right to change the coefficient. Reserves had to be deposited entirely in currency and savings banks (an important component of the banking system

---

creation of monetary base occurred instead when the Bank purchased Treasury bills in the secondary market through open market operations. Details in Cotula 1989: 252-256.

[10] Bruni et al. made a distinction between seigniorage and inflation tax. The same approach is used by Fratianni and Spinelli (1996). More details are given in section 3 below.

virtually exempted from reserve requirements so far) were subject to the system.[11] The outstanding stock of reserves was 'freezed'. While interest paid by the central bank on reserves used to equal the official discount rate, after the reform reserves were remunerated at a fixed 5.50% interest rate. The implicit loss imposed on to banks (measurable as the differential between market rates on liquid securities and interest on reserves, times the average reserve coefficient) was substantial, especially in periods of rising inflation and nominal rates. Since the early 1980s, the slowing down of real income growth and the deliberate reduction in inflation created the conditions for substantial losses of revenues from seigniorage. (Dornbusch 1989: 27) At the same time, a gradual disintermediation of the banking system (with declining growth rates of deposits due to the rapid rise of a public market for short-term government securities) reduced the growth of the reserve component of the monetary base. In order to limit the losses of seigniorage revenue, the Italian monetary authorities increased the marginal reserve requirement to 25%.

b)*Implicit subsidies to the government*. Other measures of financial repression, in the form of tax discrimination and command-and-control regulations, were implemented in order to reduce the cost and increase the volume of government borrowing from markets and institutions other than the central bank. This regulation can be regarded as a kind of subsidy to the government. In the early 1960s, the introduction of compulsory nominativity of shareholdings and a discriminatory tax rate on shares translated into a rapid disintermediation of the stock exchange (market capitalisation of the stock exchange as a ratio to GDP collapsed from 60% in the early 1960s to 29% ten years later). Deepening of domestic financial markets was driven almost exclusively by the escalation of bond issues, either government or government-guaranteed (in the case of state-owned holdings and companies and state-controlled credit institutions specialized in long-term credit). The tax reform of 1973-74 confirmed discriminatory taxation of non-state securities.[12] Regulations indirectly affecting the level of interest rate on public debt were introduced in the early 1970s. From 1973, a portfolio requirement was imposed on banks in the form of minimum

---

[11] Savings banks were allowed to choose between depositig reserves either with the central bank or with the Istituto centrale delle Casse di Risparmio, a special credit institution collectively controlled by the savings banks themselves. They obviously opted for the latter solution. With the 1975 reform, savings banks maintained the privilege, but the Istituto centrale was obliged to transfer the reserves to the central bank.

[12] A 30% tax was levied on interest from private bonds. It was 20% and 10% on bonds of state-owned concerns and credit institutions, respectively

holdings of medium- and long-term government or government-guaranteed bonds. In the same year, a forced, selective credit rationing was imposed, in the form of quantitative ceilings on credit to the private sector. Both measures had a significant crowding-out effect in favour of the public sector. Artificially sustained demand tended to keep interest rates on public securities low relative to bank loans, while expanding the stock of debt. In the 1980s, the emergence of modern monetary and financial markets for government securities made such dirigistic regulations increasingly inefficient: they were gradually relaxed in 1979-80 and finally abolished in 1983-86. (Cotula and Rossi 1989: 358-365)

c)*Financial protectionism.* The enforcement of a rigid and comprehensive set of exchange controls and legal and administrative regulations on capital movements was the natural complement of domestic financial repression. In spite of a legal environment based on a 'negative exchange regime' (as it was in most European countries, with the exception of West Germany),[13] in the early 1960s significant headway had been made in liberalization of capital movements. Commercial banks had been granted large leeway to engage in international transactions on Eurocurrency markets. Foreign investment trusts, mainly based in Luxembourg, were allowed to operate in Italy free of regulation, on condition that were quoted in a foreign stock exchange and channelled subscriptions of foreign bonds through an Italian commercial bank.[14] Their striking success with Italian investors made soon evident, however, that the relative underdevelopment of domestic financial markets was a strong incentive to search for better opportunities abroad, especially when yield differentials were high. It is worth mentioning, incidentally, that Italy was also heavily affected by massive outflows of capital in the form of illegal exports of banknotes. As Giovannini (1988: 188-197) documented, capital flights for fear of taxation had been a permanent feature of the Italian economy in the interwar years. Re-emerged in the 1960s, this phenomenon, driven by tax avoidance, expectations of devaluation and a rise in perceived political risk (after the rise in office of centre-left coalition governments, the

---

[13] The Exchange Reform Act of 1956 established that all cross-border capital transactions were restricted unless explicitly permitted.

[14] Many Luxembourg-based investment trusts were created and controlled by Italian commercial banks and special credit institutions.

nationalisation of electric public utilities and the exacerbation of social unrest),[15] reached a magnitude unknown to other European countries. (Vicarelli 1970; Giovannini 1988) Pressed by recurrent balance-of-payments crisis, Italian monetary authorities responded by introducing a wide set of asymmetric capital controls, some permanent, other temporary, some in the form of administrative regulation, other in the form of tax-like, indirect controls (equivalent to an implicit taxation of resident holdings of foreign financial assets)—all directed almost exclusively to check capital outflows.[16] (OECD 1981: 25-40; Micossi and Rossi 1986) Foreign investment trusts were obliged in 1969 to invest at least 50 per cent (100 per cent from 1973) of funds raised in Italy in domestic securities. External convertibility of Italian banknotes was suspended in 1972, thus stemming the bleeding of the currency component of the monetary base. A 50 per cent non-interest-bearing compulsory deposit on property and portfolio investments abroad was introduced in 1973, thus artificially increasing the demand for domestic assets. The requirement was relaxed after 1984 and finally removed in 1987. Commercial banks too showed a strong preference for cumulating net short-term assets abroad, especially from the second half of the 1960s onwards. This induced the Bank of Italy to impose quantitative controls on their net external positions (a command-and-control regulation used since the late 1950s). (Battilossi 2001) From 1969 to the late 1980s, therefore, banks were forbidden to assume net creditor positions and periodically forced to comply with additional constraints in the form of ceilings and reserve requirements on net external debtor positions.[17]

Who paid the bill of financial repression? Models usually assume that the cost of high reserve requirements imposed on the banking system is passed on to the public and shared by depositors and borrowers in the form of reduced yields on deposits and higher rates on loans. (Schulze 2000: 42). Households were clearly the main losers in a financial

---

[15] An additional factor was tax exemptions to non-residents on purchases of Italian securities, thus providing residents with profitable arbitrage opportunities (liquidation of direct holdings, capital export and re-purchase of securities through foreign intermediaries, principally Swiss).

[16] Capital inflows remained virtually free of permanent controls. However, restrictions on capital outflows have indirect consequences for capital inflows, since they signal the existence of structural problems and the prevalence of a regulatory attitude which may discourage foreign investors.

[17] In fact, Italian authorities encouraged Italian banks to borrow on international markets and provide foreign currency loans to residents. This policy was supported by introducing regulations on term and conditions of foreign trade financing (to prevent capital outflows disguised in leads and lags) and by imposing compulsory foreign currency financing. Banks' borrowing abroad was occasionally used to replenish international reserves and offset balance-of-payments crisis.

regime based on negative real interest rates on bank deposits. The impact on borrowers was probably more asymmetric. Small- and medium-size companies probably suffered more than big concerns. Moreover, part of the revenue was redistributed to privileged sectors of the economy, such as large state and private companies investing in the economically underdeveloped 'Mezzogiorno', in the form of subsidised credit. Also the impact on banks is hard to assess. Under competitive conditions, the banking system would be exposed to increasing disintermediation in favour of alternative financial products and intermediaries. This is not necessarily the case, however. Brock (1984: 40) argued that, with equity markets underdeveloped or subject to discriminatory taxation, and limited differentiation of financial intermediaries—as it is usually the case for developing countries—governments can impose high reserve requirements on banks without undermining their pivotal position as financial intermediaries. In fact, this might well be the case in Italy too, where the financial system maintained its strong bank-oriented tradition. In the case of extensive state ownership and control, and heavy regulation of financial prices, banks may be prevented from passing the reserve requirements tax on to customers through wider spread between deposit and loan rates. In this case, distortions caused by financial repression translate into increasing de-capitalisation of banks. In the long run, this may turn into a contingent liability to the government, if monetary authorities decide to bail out insolvent banks. (Fry 1997: 55) Banks in turn benefited from an implicit state subsidy through protection from internal and external competition in exchange for deficit financing at attractive conditions, which reinforced collusion between a revenue seeking government and a rent seeking banking system.

Which were the long-run implications of such comprehensive regime of financial repression? Until the mid-1980s, administrative regulation and financial protectionism increased revenues from implicit taxes and allowed a relative degree of segmentation between domestic and international financial markets. This contributed to keep Italian real interest rates at levels substantially lower than those prevailing in international markets. (Giavazzi and Pagano 1985; Bruni et al. 1989: 204-211) As liberalisation implied substantial losses of revenues from seigniorage and convergence between nominal and real interest rates towards international level, a change of regime in favour of domestic deregulation and free capital mobility required substantial fiscal adjustment to be credible.

The higher the economic importance of revenues from implicit taxes, the higher we can assume would be the fiscal costs of liberalization and, consequently, the more controversial the shift towards a liberal financial regime.

3. Estimating the economic relevance of financial repression

Which was the economic importance of financial repression in Italy from 1960 to 1990? This section estimates the size of revenue extracted by the Italian government through financial repression from 1960 to 1990, and compare it to revenues from seigniorage, in order to assess their economic relevance.

Total revenues from seigniorage are measured by the annual change in the monetary base expressed as a share of nominal GDP (Fisher 1982, Brock 1984, Sargent 1999), which represents the command over resources, as a ratio to GDP, obtained by the government by creating high-powered money.[18] In the case of Italy, Fratianni and Spinelli (1991: 125-130) suggested that Treasury's seigniorage should be considered separately from the inflation tax (the flow of real resources obtained by the state thanks to inflation at the expenses of holders of fixed rate government liabilities, including monetary base and debt).[19] The emphasis on Treasury's seigniorage seems quite appropriate, for the Treasury played a dominant role in total monetary base creation (80% on average from the late 1960s to the late 1980s). (Cottarelli 1989: 138) Also Bruni et al. (1989: 198-199) opted for focusing on the Treasury but recognized that additional seigniorage is collected on the rest of the monetary base as well, and would accrue to a consolidated public sector including the central bank. Since the analysis of different sources of seigniorage is beyond the purpose of this paper, the more general and comprehensive measure has been adopted.

---

[18] Drazen (1985 and 1988) argued that a more general measure, defined as 'total revenue from money creation', would be appropriate in order to analytically separate two distinct revenue sources, stemming from the distinct roles of the government as taxing authority and monopolistic producer of money This includes the real value of newly printed money (above that used to manage the exchange rate), plus the interest earnings on that part of previous issuance which went to purchase interest-bearing assets, plus adjustment due to payment of interest on reserves.

[19] Fratianni and Spinelli measured seigniorage as the change in the Treasury monetary base times the ratio of the Treasury monetary base to GDP [(dMBT/MBT) (BMT/Y)]. The inflation tax is measured as the inflation rate multiplied by the aggregate real value of the Treasury monetary base and debt, minus interest paid on the real value of debt [(MBT + D)π – Di], expressed as a percentage of GDP. A similar, though slightly different measure of the inflation tax is proposed by Giovannini (1988: 203-204), by multiplying a measure of inflation (i.e. the yearly percentage change in the GDP deflator) by the real stock of high powered money, π(MB), also expressed as a percentage of GDP.

Table 3
Total revenues from seigniorage (as % of GDP): Italy, 1960-1990

| | Total Revenues-to-GDP Ratio | | Reserve Component | | Reserve Component as% of Total Seigniorage |
	mean	s.d.	mean	s.d.	mean
1960-90	2.47	1.57	1.37	0.90	58.7
1960-70	2.70	2.35	1.02	0.74	44.3
1970-80	2.90	0.91	1.95	1.09	67.0
1980-90	1.68	0.42	1.10	0.37	65,6

NOTE. Seigniorage is measured as the annual change in monetary base (line 14 of IMF-IFS). Reserves are monetary base minus currency held outside the banking system (lines 14-14a).
Source: IMF, International Financial Statistics, 1972 Supplement amd 1992 Yearbook.

Figures in Table 3 show that in the period 1960-90 the government was able to extract annually from the private sector of the economy revenues from seigniorage equalled 2.50 per cent of GDP on average. (Annual data are plotted in Figure 3 in the Appendix) Data are consistent with figures provided by different studies based on country-specific sources.[20] The flow of revenue was substantial but highly variable in the 1960s. In the following decades seigniorage tended to stabilise, reaching its peak in the inflationary 1970s and declining in the 1980s. The contribution of the reserve component of the monetary base was dominant in the long run and substantially increased over time, reaching the highest level in the 1970s (67 per cent of total revenue from seigniorage). The evidence is consistent with the substantial increase in banks' reserves induced by the new regulation introduced in 1975, which drove the average reserve coefficient of the banking system up from 14.5 to 20.7 per cent in just a decade (see Table 4).

---

[20] A rough check of the consistency of the results can be performed by comparing figures obtained by different authors using different sources, such as Bruni et al., 1989, who calculated Treasury's seigniorage only using data from the Bank of Italy, though for different and shorter periods.

	Bruni et al., 1989	This paper
1976-1987	1.9	2.1
1976-1981	2.1	2.3
1981-1987	1.7	1.8

Results are similar and broadly consistent. The absolutely dominant role of the Treasury as a source of monetary base explains the small difference between Bruni et al. and this paper.

Table 4
Average reserve coefficient (reserves-to-outstanding stock of deposits ratio, %)

	1976	1980	1983	1987
Commercial Banks	17.6	16.6	19.0	21.5
Savings Banks	5.7	11.2	15.1	18.5
Total	14.5	15.1	17.8	20.7

Note. The maximum reserve coefficient on outstanding stock of deposits was set at 22.5% from 1962.
Source: Zautzik 1989, 343.

Similarly to inflationary finance, financial repression may be considered a policy instrument that allows the government to extract revenues from the private sector of the economy. Following Giovannini and De Melo (1993), government-imposed controls on domestic financial markets can be regarded as a form of taxation. Assuming that interest paid by a government in the international capital markets reflects the shadow price of funds, total revenues from financial repression can be measured as the differential between the government's borrowing cost in international and domestic markets, multiplied by the stock of domestic government debt. In addition to the international interest rate, the foreign borrowing cost includes an exchange rate component—namely, the realized depreciation of the domestic currency relative to the Dollar, assuming that typically foreign debt is mostly dollar-denominated. This provides a proxy for the change in domestic-currency value of the stock of external dollar-denominated debt.[21] Regarding domestic borrowing as a substitute for foreign borrowing, the method tries to capture the gain that accrues to the government from the cost differential between domestic and foreign funds. (Giovannini and de Melo 1993: 958)

Using this method required a number of adaptations (see the final Note for details). In order to maximize cross-country comparability, Giovannini and De Melo took only central government debt into account as 'a minimum empirical estimate of a wider concept'. However, they recognized that their choice clearly underestimated the actual revenue from financial repression, as also low interest payments of the central bank, state

---

[21] Giovannini and de Melo considered also the revaluation (in dollars) of external debt denominated in other currencies. This item resulted to add as a rule to the foreign cost of borrowing.

and local-governments, and even government-owned enterprises represent indirect budgetary savings (1993: 954-956). In accordance with Italian budgetary statistics, a different measure has been adopted here, based on a wider definition of 'public sector' to include central government and its agencies, local governments and state agencies (such as the post service, railways and state monopolies, but <u>not</u> state-owned companies). Domestic public debt includes Treasury bills and government bonds held by the private sector (banks included), postal savings, credit from the banking sector, and Treasury's borrowing from the central bank (as defined in section 2).[22] (Morcaldo 1993: 23).

A further qualification applies to the method adopted to calculate borrowing costs. The use of an effective interest rate method, as in Giovannini and De Melo, was possible only for domestic debt, due to lack of statistical breakdown of interest payments on public debt held abroad. As a consequence, a sub-optimal method as been adopted by choosing the average yield on Dollar bonds issued in the international market as a proxy for the borrowing cost of the Italian government abroad. This has been considered a better indicator than LIBOR on the grounds that it results less affected by short-term rate volatility, and that the Italian government (whose foreign debt remained marginal until the 1980s) did not resort directly to medium- or long-term international bank credit (usually indexed to LIBOR, plus a spread) and issued its currency-denominated debt in the form of bonds.[23] This method is likely to underestimate the effective cost of borrowing abroad, as it includes neither contractual fees nor the risk premium demanded by international lenders and investors on Italian debt. Moreover, interest payments used to calculate the domestic borrowing cost include an unknown volume of payments on foreign debt, which inflates the actual size of interests paid on domestic debt and overestimates the effective cost of borrowing at home. As a consequence, the differential obtained here can be considered a minimum value, while the actual differential may be significantly higher (especially in the

---

[22] It is important to note that the latter component is excluded when we calculate revenue from financial repression, since the acquisition of government debt by the central bank is financed by an increase in money supply and is different from, not a substitute for foreign borrowing. Moreover, interest paid by the government to the central bank contributes to central bank profits, which are returned to the Treasury as a rule.

[23] State-owned enterprises and special credit institutions resorted massively to the international credit and bond markets, on behalf of the state, especially during balance-of-payments crisis in order to stabilize international reserves. This form of international borrowing is not taken into account in this paper.

final part of the period, when the volume of foreign debt increased substantially: see Table 5).

Table 5
Foreign debt as a share of public sector debt

	1960-69	1970-74	1975-79	1980-84	1985-89
Mean	1.75	1.87	1.29	2.57	2.69

Sources: Morcaldo and Salvemini 1984: 1420; Morcaldo 1993: 41.

Table 6
Financial Repression Tax Rate and Revenues

	Interest rate differential (1)		Currency Depreciation (2)		Tax Rate (3)=(1)+(2)		Total Revenue-to-GDP Ratio	
	mean	s.d	mean	s.d	mean	s.d	mean	s.d.
1965-1990	1.54	1.70	3.17	11.79	4.71	12.21	1.40	6.28
1965-1970	2.69	0.87	0.00	0.00	2.69	0.87	0.87	0.32
1970-1980	2.54	1.42	3.26	9.35	5.80	9.28	1.91	3.03
1980-1990	0.19	1.25	4.51	15.91	4.70	16.83	1.25	9.44

NOTE
(1)Interest rate differential: nominal foreign borrowing cost (average yield of dollar-denominated dollar bonds in international markets. 1964-1972: straight, average yield to medium life; 1972-1990: public sector bonds, remaining maturity 7-15 years), minus effective domestic borrowing cost (interest payments/stock of domestic outstanding debt: see Note below).
Source: OECD Statistical Compendium, Financial Statistics Series, CD-ROM., for foreign borrowing cost; see Appendix for statistical sources for domestic borrowing costs.
(2)Currency depreciation: average annual change of the exchange rate between Lira and the Dollar, expressed as Liras per one Dollar.

Source: IMF, International Financial Statistics Yearbook, 1992.

Table 6 shows that financial repression was a significant source of revenue for the Italian government, equal to an annual average of 1.40% of GDP in the long run, with a peak level in the 1970s (1.90%). Multiyear averages tend to offset large movements in positive and negative revenues, which respectively occurred in periods of substantial depreciation (1973-77, 1981-85) or appreciation (1972, 1978-79, 1986-7, 1990) of the Lira

relative to the Dollar. In fact, as shown in Figure 4 (see Appendix), implicit tax rates and revenues can reach very high levels in the presence of large exchange-rate depreciations, as financial repression prevents the depreciation from being reflected in nominal domestic interest rates.[24] On average, the size of revenues from financial repression was of a magnitude roughly comparable to seigniorage (which is comparatively high in Italy, as illustrated in section 2). A rough comparison with data provided by Giovannini and De Melo (1993: 959) for a sample of countries of the European periphery for the 1970s and 1980s confirms the economic importance of the financial repression tax in Italy. In 1974-1985 the Greek governments, for example, were able to extracts annual revenues equal to 2.53% of GDP; in Portugal in 1978-1986, revenues were 2.22% of GDP.[25] Values for Italy in the same period (1974-86) are 3.63% of GDP. Such evidence confirms once more the existence of strong similarities between financial regimes of Southern countries of Europe, with consistent and comparable economic consequences. Considered together, seigniorage and financial repression tax appear to have been an important component of the recent fiscal history of Italy. The economic importance of implicit taxes provides a rough measure of the first-order implications of liberalization for the government's budget constraint, as the relative size of implicit taxes to GDP points to the size of the fiscal adjustment required as a necessary complement of financial liberalization. The higher the revenue from implicit taxes, the larger the sustainable deficit a government can afford to run without changing the established path of fiscal policy (if the country can be sufficiently isolated from the international economy)—and consequently the higher the costs of liberalization in terms of fiscal adjustment.

4.Conclusion

The political economy of fiscal adjustments represents a classic field of investigation. A number of models have been proposed and discussed – from fiscal illusion to intergenerational redistribution, from strategic games between governments alternating in office to distributional conflicts and wars of attrition (Alesina et al. 1998; Drazen 2000:

---

[24] Alesina et al. (1994) argued that the second order impact of adjustable exchange rates is that, before realignment, large interest rate adjustment would be necessary to compensate asset holders from capital losses.

690-706) It would be pretentious to advance an interpretation of the thirty years of Italian history considered in this paper in the light of one (or more) of such intriguing models. Suffices it to say here that a number of peculiar features of the social, political and institutional set up of Italy from the 1960s to the 1980s looks broadly consistent with variables whose importance has been emphasised by the 'new political economy approach' to budget deficits and fiscal adjustment. Some were mentioned in the paper, such as the institutional set up of monetary policy and the relationship between governments and central banks. Others may help investigate the roots of both the fiscal crisis, the policy of 'cheap budget deficit' of the 1970s and the over-borrowing of the 1980s that led to the explosion of the public debt: electoral law, political instability with governments unable to internalize the cost of future debt servicing, the fragmented nature of the political system, lack of cohesion and harsh competition in the ruling coalitions, inefficient budgetary procedures. The narrative evidence suggests that an approach in terms of 'delayed stabilization' (Alesina and Drazen 1991) may prove appropriate.

This paper's objective was much less ambitious. Drawing on an extensive political economy literature, it argues that a public finance approach to issues such as capital controls and financial repression provides interesting insights into important aspects of the connection between financial globalisation and fiscal stabilization. An apparently temporary backlash from incipient financial globalisation in the second half of the 1960s and early 1970s, as the re-imposition of capital controls in the turbulent demise of the Bretton Woods system, led—in Italy as well as in a number of European countries—to the emergence of a pervasive and long-lasting regime of financial repression, both domestic and external. The paper suggests that Italian governments' choice to resort massively to implicit taxation may provide an explanation. Regulation and controls were instrumental to maintain the domestic tax base for government revenues from seigniorage and financial repression. The paper illustrates the policy measures used in order to increase seigniorage, grant implicit subsidies to the government and enforce financial protectionism. It also provides for the first time an estimation of the economic relevance of revenues from financial repression, which proved to be of a magnitude comparable to revenues from

---

[25] Data provided by Giovannini and De Melo for Greece and Portugal considered central government's debt only.

seigniorage. The economic importance of financial repression can be considered a rough approximation of the cost of financial liberalization, in terms of losses of revenues from implicit taxes and the structural change in taxation and spending that a government should implement together with financial liberalization. As the existing literature on Latin America demonstrates, financial liberalization translates into social and political conflicts over the distribution of the burden of the required adjustment. As suggested in the final part of the paper, the high cost of liberalization, in terms of loss of rents and fiscal stabilization, may explain why the process of financial reform was slow and controversial.

In fact, in the second half of the 1980s, capital liberalization in Italy was accompanied by a bad fiscal performance. Problems stemming from the inability to reduce the primary deficit/GDP ratio and the explosion of public debt were exacerbated by increasing real interest rates due to nominal convergence in inflation and liberalisation of domestic financial markets. In spite of the shift to a new monetary regime (increased central bank independence and monetary restraint), a rule of coordination between monetary and fiscal policy was slow to emerge, and the link between fiscal deficits and future monetization was less automatic but not completely cut off (Tabellini 1989: 90-100). Giovannini (1989: 204) argued that 'even under the most optimistic scenarios, Italy will not be able to grow out of its government debt. This implies higher taxes in the future. Unless extraordinary taxation—like debt repudiation—is used, increased monetization of government deficits will most likely be resorted to'. High political instability was paralleled by incipient signs of a confidence crisis (Alesina et al 1990). Indeed, there were no good fiscal news to signal. In fact, capital liberalization was forced onto reluctant governments because of Italy's unavoidable commitment with the EU 1992 Programme.

NOTE

The foreign borrowing cost, FOBC, is the estimated cost for of government's borrowing in the international capital market. In the absence of statistical breakdown on the annual flow of interest payments on foreign currency-denominated debt, the cost is estimated by using the series of market yield of dollar-denominated bonds, BONDS. This series has been preferred to LIBOR because of lower sensitivity to short-term rate fluctuations. In addition, direct capital raising in international markets by the Italian government was based almost exclusively on medium- and long-term bonds. Commercial loans from international banks were mainly resorted to by State-owned concerns and special credit institutions, borrowing on behalf of the government for purposes of international reserves stabilizations. To estimate the effective foreign borrowing cost, the annual realized depreciation/appreciation of the Lira relative to the dollar is added.

The domestic borrowing cost, DOBC, is the estimated cost of government's borrowing in the domestic market. It is calculated ex-post, using an effective interest method. The annual interest payments of the public sector (as specified in section 3), INTP, is divided by the average total domestic debt outstanding, DOD, expressed in domestic currency, and including holding of monetary authorities (as the Treasury normally remunerates central bank for holding interest-bearing treasury debt).

Foreign borrowing cost, FOBC = BONDS + Lira depreciation/appreciation
Effective domestic borrowing cost, DOBC = $INTP_{(t)} / [(DOD_{(t-1)} + DOD_{(t)} / 2]$

The government revenue from financial repression is calculated as follows:
$$[FOBC - DOBC] \text{ times } DOD*$$
where DOD* is the average annual stock of domestic debt, excluding debt held by monetary authorities. This is because: a) the acquisition of government debt is financed by increasing money supply and not by borrowing within a resource-constrained environment: i.e., it's not related to financial repression and is different from, not a substitute for foreign borrowing; b) interest payments from Treasury to the central bank are part of central bank profits, returned to the Treasury as a rule.

Sources:
Yields of dollar-denominated bonds on international markets are from *OECD Statistical Compendium*, Financial Statistics Series, CD-Rom.
Annual average change of the Lira/Dollar exchange rate is from IMF, *International Financial Statistics Yearbook*, 1992.
Stock and composition of central government domestic debt, interest payments, from Morcaldo 1993.

REFERENCES

AIZENMAN J., GUIDOTTI P., 1994, 'Capital controls, collection costs and domestic public debt', *Journal of International Money and Finance*, 13: 41-54.

ALESINA A., DRAZEN A., 1991, 'Why are stabilizations delayed?', *American Economic Review*, 82: 1170-1188.

ALESINA A., TABELLINI G., 1989, 'External debt, capital flight and political risk', *Journal of International Economics*, 27: 199-220.

ALESINA A., GRILLI V., MILESI-FERRETTI G.M., 1994, 'The political economy of capital controls', in L. Leiderman, A. Razin, eds., *Capital Mobility: The Impact on Consumption, Investment and Growth* (Cambridge: Cambridge University Press): 289-321.

ALESINA A., PEROTTI R., TAVARES J., 1998, 'The political economy of fiscal adjustments', *Brookings Papers on Economic Activity*, 28 (1): 197-248.

ALESINA A., PRATI A., TABELLINI G., 1990, 'Public confidence and debt management: a model and a case study of Italy', in R. Dornbusch, M. Draghi, eds., *Public Debt Management: Theory and History* (Cambridge: Cambridge University Press): 94-117.

BAI C., LI D.D., QIAN Y., WANG Y., 2001, 'Financial repression and optimal taxation', *Economic Letters*, 70: 25-251.

BAKKER A.F.P., 1996, *The Liberalization of Capital Movements in Europe. The Monetary Committee and Financial Integration, 1958-1994* (Dordrecht-Boston-London: Kluwer Academic Publisher).

BARTOLINI L., DRAZEN A., 1997a, 'Capital-account liberalization as a signal', *American Economic Review*, 87: 138-154.

BARTOLINI L., DRAZEN A., 1997b, 'When liberal policies reflect external shocks, what do we learn?', *Journal of International Economics*, 42: 249-273.

BATTILOSSI S., 2000, 'Financial innovation and the Golden Ages of international banking, 1890-1931 and 1958-1981', *Financial History Review*, 7: 141-175.

BATTILOSSI S., 2001, 'The regulation of international banking as an agency problem: the Deutsche Bundesbank and the Bank of Italy under Bretton Woods', *Working Papers, Department of Economic History, Universidad Carlos III*.

BROCK P., 1984, 'Inflationary finance in an open economy', *Journal of Monetary Economics*, 14: 37-53.

BROCK P., 1989, 'Reserve requirements and the inflation tax', *Journal of Money Credit and Banking*, 21: 106-21.

BRUNI F., PENATI A., PORTA A., 1989, 'Financial regulation, implicit taxes, and fiscal adjustment in Italy', in M. Monti, ed., *Fiscal Policy, Economic Adjustment, and Financial Markets* (Washington, D.C.: IMF, and Milan: Centro di Economia Monetaria e Finanziaria, Università Bocconi): 197-230.

CAPRIO G., ATIYAS I, HANSON J., eds., 1996, *Financial Reform: Theory and Experience* (Cambridge: Cambridge University Press)

CAPRIO G., HONOHAN P., STIGLITZ J.E., eds., 2001, *Financial Liberalization: How Far, How Fast?* (Cambridge: Cambridge University Press)

CHAMP B., FREEMAN S., 2001, *Modeling Monetary Economies* (Cambridge: Cambridge University Press).

COTTARELLI C., 1989, 'La base monetaria e i mercati dei depositi e del credito', in F. Cotula, ed. , *La Politica Monetaria in Italia* (Bologna: il Mulino), v. II: 133-178.

COTULA F., 1989, 'Il finanziamento del Tesoro', in F. Cotula, ed., *La Politica Monetaria in Italia* (Bologna: ilMulino), v. II: 249-279.

COTULA F., ROSSI S., 1989, 'Il controllo amministrativo dei flussi finanziari in Italia', in F. Cotula, ed., *La Politica Monetaria in Italia* (Bologna: il Mulino), v. II: 351-377.

CUKIERMAN A., EDWARDS S., TABELLINI G,, 1992, 'Seigniorage and political instability', *American Economic Review*, 82: 537-555.

DE GREGORIO J., EWARDS S., VALDES R.O., 2000, 'Controls on capital inflows: do they work?', *NBER Working Paper*, n. 7645.

DIXIT A., 1991, 'The optimal mix of inflationary finance and commodity taxation with collection lags', *IMF Staff Papers*, 38: 643-654.

DRAZEN A., 1985, 'A general measure of inflation tax revenues', *Economic Letters*, 17: 327-330.

DRAZEN A. 1989, 'Monetary policy, capital controls and seigniorage in an open economy', in M. De Cecco, A. Giovannini, eds., *A European Central Bank?* (Cambridge: Cambridge University Press): 13-32.

DRAZEN A., 2000, *Political Economy in Macroeconomics* (Princeton, NJ: Princeton University Press).

DORNBUSCH R., 1989, 'Discussion', in F. Giavazzi, L. Spaventa, eds., *High Public Debt: the Italian Experience* (Cambridge: Cambridge University Press): 25-32.

EDWARDS S., 1999, 'How effective are capital controls?', *NBER Working Paper*, n. 7413.

EICHENGREEN B., 2000, 'From benign neglect to malignant preoccupation. U.S. balance-of-payments policy in the 1960s', *NBER Working Paper*, n. 7530.

FISHER S., 1982, 'Seigniorage and the case for national money', *Journal of Political Economy*, 90: 295-313.

FRANCO D., 1993, *L'Espansione della Spesa Pubblica in Italia (1960-1990)* (Bologna: il Mulino)

FRATIANNI M., SPINELLI F., 1991, *Storia Monetaria d'Italia* (Milano: Mondadori)

FRATIANNI M., SPINELLI F., 2001, 'Fiscal dominance and money growth in Italy: the long record', *Explorations in Economic History*, 38: 252-272.

FRY M., 1997, *Emancipating the Banking System and Developing Markets for Government Debt* (London-New York: Routledge).

GIAVAZZI F., PAGANO M., 1985, 'Capital controls and the EMS', in Capital Controls and Foreign Exchange Legislation, *Euromobiliare Occasional Paper*: 19.38

GIOVANNINI A., 1988, 'Capital controls and public finance: the experience of Italy', in F. Giavazzi, L. Spaventa, eds., *High Public Debt: the Italian Experience* (Cambridge: Cambridge University Press): 177-211.

GIOVANNINI A., 1990, 'Discussion', in R. Dornbusch, M. Draghi, eds., *Public Debt Management: Theory and History* (Cambridge: Cambridge University Press): 183-185.

GIOVANNINI A., 1991, 'International capital mobility and tax avoidance', *Banca Nazionale del Lavoro Quarterly Review*, n. 177: 197-223.

GIOVANNINI A., DE MELO M., 1993, 'Government revenues from financial repression', *American Economic Review*, 83, n. 4, 953-63.
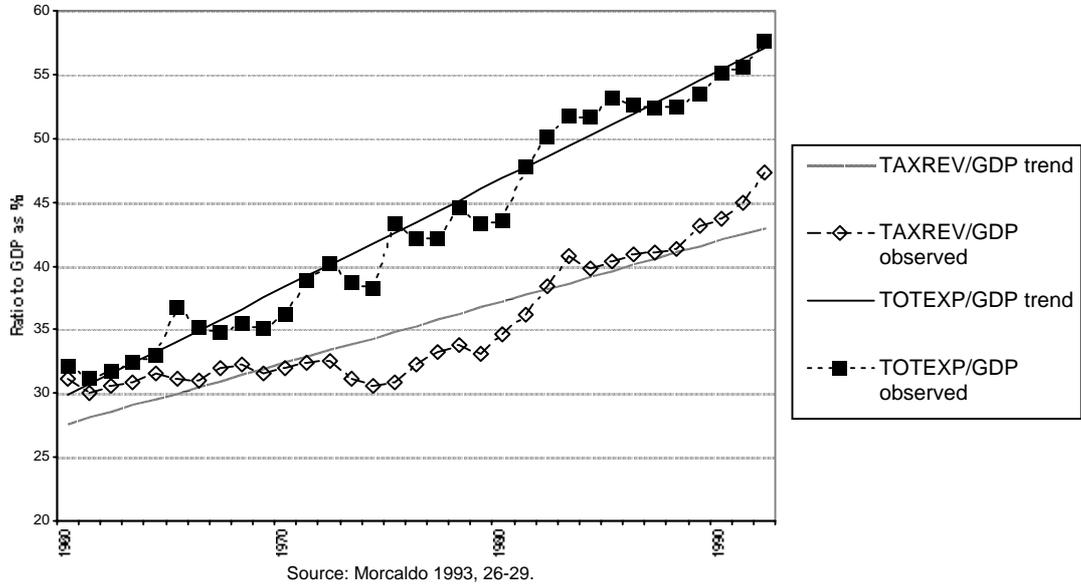
GIOVANNINI A., TURTELBOOM B., 1994, 'Currency substitution', in F. van der Ploeg, ed., *The Handbook of International Macroeconomics* (Oxford: Basil Blackwell): 390-436.

GRILLI V., 1989, 'Seigniorage in Europe', in M. De Cecco, A. Giovannini, eds., *A European Central Bank?* (Cambridge: Cambridge University Press): 53-79.

GRILLI V., MASCIANDARO D., TABELLINI G., 1991, 'Political and monetary institutions and public financial policies in the industrial countries', *Economic Policy*, 13: 341-392.

GRILLI V., MILESI FERRETTI G.M., 1995, 'Economic effects and structural determinants of capital controls', *IMF Staff Papers*, 42: 517-551.

GUPTA K.L., LENSINK R., 1997, 'Financial repression and fiscal policy', *Journal of Policy Modeling*, 19 (4): 351-373.

JOHNSTON B., SUNDARARAJAN V., eds., 1999, *Sequencing Financial Sector Reform* (Washington, DC: International Monetary Fund)

JOHNSTON B., TAMIRISA N.T., 1998, 'Why do countries use capital controls?', *IMF Working Paper*, WP/98/181.

KING R.G., PLOSSER C.I., 1985, 'Money, deficits, and inflation', *Carnegie-Rochester Conference Series on Public Policy*, 22: 147-196.

LAMFALUSSY A., 1981, 'Changing attitudes towards capital movements', in F. Cairncross, ed., *Changing Perceptions of Economic Policy* (London-New York: Methuen): 194-217.

McKINNON R., 1973, *Money and Capital in Economic Development* (Washington,DC: The Brookings Institution)

MARSTON R.C., 1997, *International Financial Integration. A Study of Interest Differentials Between the Major Industrial Countries* (Cambridge: Cambridge University Press).

MICOSSI S., ROSSI S., 1986, 'Controlli sui movimenti di capitale: il caso italiano', *Giornale degli Economisti e Annali di Economia*, n. 1-2: 17-53.

MORCALDO G., 1993, *La Finanza Pubblica in Italia* (Bologna: il Mulino)

MORCALDO G., SALVEMINI G., 1984, 'Il debito pubblico: analisi dell'evoluzione nel periodo 1960-83 e prospettive', *Rivista di Politica Economica*, 74: 1407-1445.

NICOLINI J.P., 1998, 'Tax evasion and the optimal inflation tax', *Journal of Development Economics*, 215-232.

OECD, 1981, *Regulations Affecting International Banking Operations of Banks and Non-Banks* (Paris: OECD), v. II.

PODBIELSKI G., 1974, *Italy. Development and Crisis in the Post-War Economy* (Oxford: Clarendon Press).

REINHART C.M, SMITH C.T., 2001, 'Temporary controls on capital inflows', *NBER Working Paper*, n. 8422.

ROMER D., 1985, 'Financial intermediation, reserve requirements, and inside money. A general equilibrium analysis', *Journal of Monetary Economics*, 16: 175-194.

ROUBINI N., SALA-I-MARTIN X., 1995, 'A growth model of inflation, tax evasion and financial repression', *Journal of Monetary Economics*, 35: 275-301.

SARGENT T., 1986, 'The end of four big inflations', in *Rational Expectations and Inflation* (New York: Harper & Row): 40-109.

SARGENT T., 1999, 'A primer on monetary and fiscal policy', *Journal of Banking and Finance*, 23: 1463-1482.

SARGENT T., WALLACE N., 1981, 'Some unpleasant monetarist arithmetic', *Federal Reserve Bank of Minneapolis Quarterly Review*, (fall): 1-17.

SCHULZE G.G., 2000, *The Political Economy of Capital Controls* (Cambridge: Cambridge University Press).

SPAVENTA L., 1989, 'Seigniorage: old and new policy issues', *European Economic Review*, 33: 557-563.

SUSSMAN O., 1991, 'Macroeconomic effects of a tax on bond interest rates', *Journal of Money, Credit and Banking*, 23: 352-366.ç

TANZI V., 1978, 'Inflation, real tax revenue, and the case for inflationary finance: theory with an application to Argentina', *IMF Staff Papers*, 25: 417-451.

TANZI V., 1989, 'The impact of macroeconomic policies on the level of taxation and the fiscal balance in developing countries', *IMF Staff Papers*, 36: 633-656.

TANZI V., 1992, 'Theory and Policy. A comment on Dixit and on current tax theory', *IMF Staff Papers*, 39: 957-966.

TABELLINI G., 1989, 'Monetary and fiscal policy coordination with a high public debt', in F. Giavazzi, L. Spaventa, eds., *High Public Debt: the Italian Experience* (Cambridge: Cambridge University Press): 90-126.

VICARELLI F., 1970, 'L'esportazione di banconote nell'esperienza italiana dell'ultimo decennio: un'analisi quantitativa', *Studi Economici*, n. 3-4.

WYPLOSZ C., 1999, 'Financial restraint and liberalization in postwar Europe', *CEPR Discussion Paper*, n. 2253.

WYPLOSZ C., 2001, 'Exchange rate regimes: some lessons from post-war Europe', *CEPR Discussion Paper*, n. 2723.

ZAUTZIK E.A., 1989, 'La riserva obbligatoria delle aziende di credito', , in F. Cotula, ed., *La Politica Monetaria in Italia* (Bologna: ilMulino), v. II: 337-350.

■■■

APPENDIX

Fig. 1 Total public sector expenditures and tax revenue: 1960-90

Source: Morcaldo 1993, 26-29.

Fig. 2 Debt/GDP Ratio, 1960-1990

(Public sector debt: includes borrowing from monetary authorities).
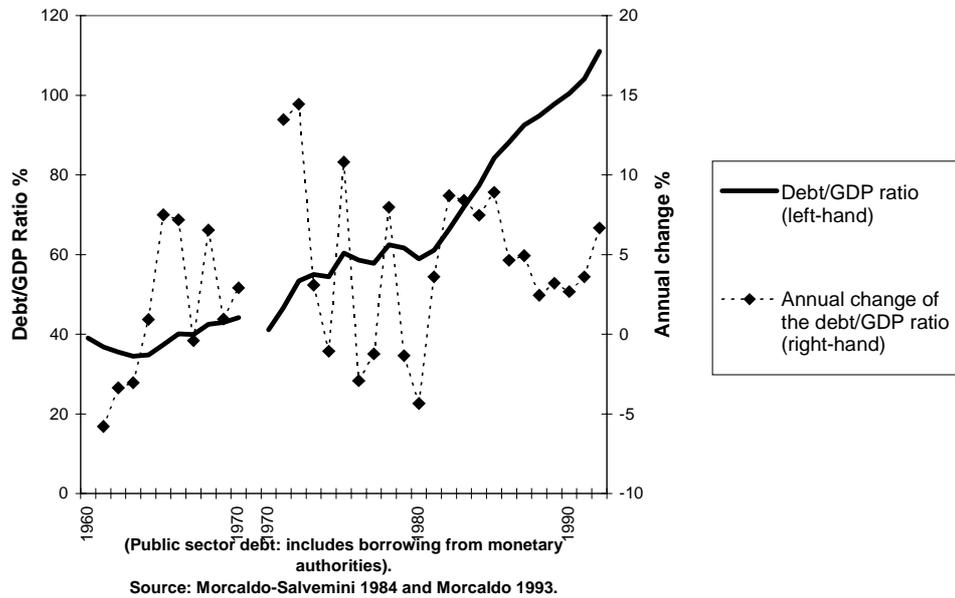**Source: Morcaldo-Salvemini 1984 and Morcaldo 1993.**

35

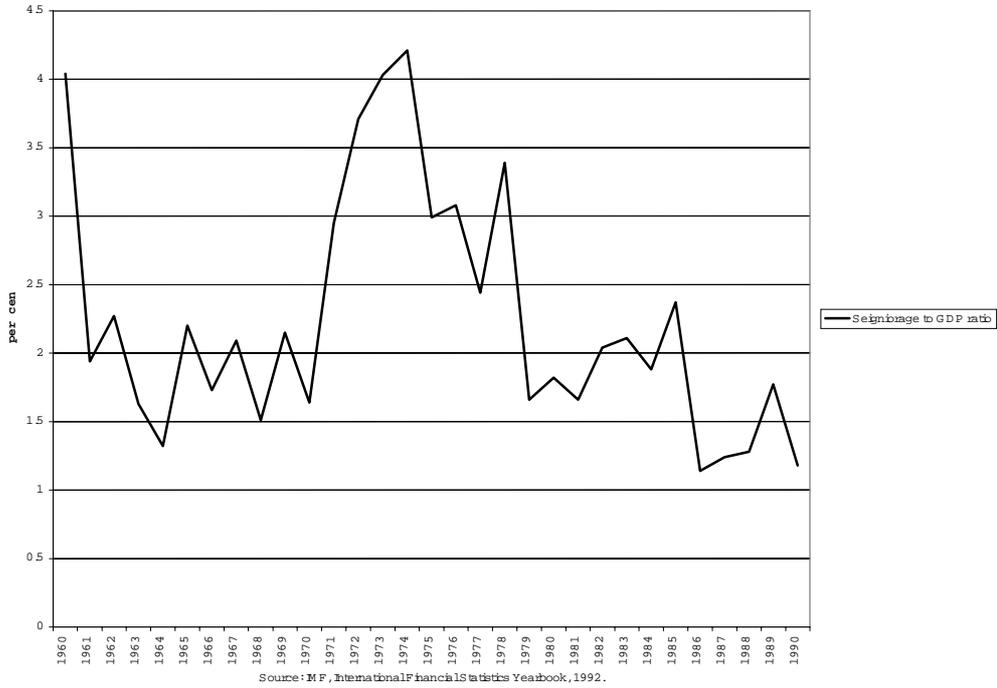**Fig. 3 Seigniorage revenues as per cent of GDP, 1960-90**

Fig. 4 Revenues from financial repression: 1965-1990

Source: see Text and Appendix.