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### FISCAL FEDERALISM AND NATIONAL HEALTH STANDARDS IN ITALY: IMPLICATIONS FOR REDISTRIBUTION

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#### **ABSTRACT**

Recent reforms of National Health Service (NHS) financing sources in Italy have stressed the opportunity to make regions responsible for health care in order to limit the level of public health expenditures, to improve its efficiency and to reduce the relevance of both common pool and soft budget constraint problems. At the same time, those same reforms leave to the central government the power to set national health standards (LEAs). The aim of this paper is to challenge the consistency of these elements. After briefly describing the evolution of the financing system in Italy and challenging common beliefs on excess spending, the paper will argue that, as LEAs have a merit good content, regions may act on them only as agents of the central government, weakening incentives to harden budget constraints. Finally, the paper will put a non-analytical basis to support that the central government is behaving in health federalism according to shift-to-responsibility models and that health federalism might in fact conceal health privatization.

**Keywords:** Health, federalism, soft budget constraint, redistribution, Italy

**JEL classification**: H51; H77; I18

#### 1. A brief history of the National Health Service in Italy and of its financing sources

Since its introduction in 1978, the evolution of the National Health Service (NHS) in Italy has been correlated to the evolution of financial intergovernmental relationships. During Seventies, a fundamental tax reform concentrating most tax revenues in the hand of the central government, opened the way to the long lasting method of financing local expenditures, in particular health expenditures, through central government resources. The crucial element of this institutional setting has been for many years the neat separation between expenditure and revenue-raising responsibilities in health care, the first allocated to regions, the second left at central level. This arrangement has attracted many criticisms over time<sup>1</sup> and, as we will see below, there is no definite solution yet, even though health federalism is much more an issue today than in the past.

It is worth noting that the need for a sound financial management of the health sector did not arise with the introduction of the NHS. Since 1972, regions (introduced as a level of government in 1970) were funded with national resources channeled through the National Fund for Hospital Assistance (NFHA). This fund conveyed both the revenue from health contributions and central transfers, basing on the idea that predetermined funds would have limited regional expenditures, a leit motiv of any health reform in Italy since thirty years. <sup>2</sup>

Insufficient results on putting limits to expenditures and on achieving territorial equity suggested to discard the NHFA as a method of financing regional hospital expenditures in 1978. Yet, the logic of setting an *ex ante* limit to health spending was maintained and extended to the health sector as a whole by the 1978 reform (the first health reform). One of the explicit aim of the health sector coverage by the NHF was to limit regional incentives to excess spending and the consequent need for central government to eventually bail out regions. The Health National Plan (HNP) was supposed to be the key of this arrangement. Unfortunately, it was first set in 1994. Another important aim, which is still embodied in intergovernmental relationships, was to set uniform levels of medical assistance to be provided to all citizens in all regions, regardless of income. Funding was channelled through the National Health Fund (NHF), a solution that was preferred to both compensating regions for their actual expenditures and attributing them autonomous revenue sources.

It is part of the history of the health sector in Italy that the NHF, initially introduced as a tool for controlling health expenditures, has eventually followed one the option that was explicitly discarded at the time of its introduction, that of paying regions for their actual expenditures. This occurred at least until 1992, when an important reform of the health sector was passed (the second health reform). From 1978 to 1992, the story of the health sector is one of underprovision of the NHF, accumulated regional deficits and bailout of regions by part of the central government.

Since 1992, more attention has been paid to control the level of health expenditures through tighter regional budget constraints. Regions were made responsible for marginal expenditures on health and involved in financing current health deficits, especially for

<sup>2</sup> It is also worth recalling that the NFHA was integrated by regional funds. See on this Lucioni and Rossi (1983).

<sup>&</sup>lt;sup>1</sup> See, among many in the corresponding periods, Cavazzuti and Giannini (1982), Buglione and France (1983), France (1991), Petretto (1997).

excess spending on the uniform levels of assistance. Revenue sources were also strenghtened, assigning to them the revenue from health contributions. Since that date, the NHF has played the role of compensating the difference between regional health contributions and actual regional health needs.

A supposed sharp change in health policy, opening the wide debate on health federalism, has occurred only recently, with the introduction of the regional tax on local business (IRAP), a personal income surtax and with some innovations introduced on the supply side (third health reform). IRAP replaced health contributions (and other taxes) as a source for health financing. Both taxes were initially assigned to regions with the explicit constraint of financing health (90 per cent of IRAP, 100 per cent of the surtax). The NHF still survived to again integrate the difference between resources and health needs at regional level.

A step further in this process has been accomplished in 1999 and 2000. This is a potentially pathbreaking change for the regional financing system, as the NHF is abolished, constraints on tax revenues (IRAP and the income surtax) are removed, and resources are channelled to regions through their own tax revenues (mainly IRAP, income surtax, car tax), sharing of national taxes (basically gasoline tax) and a national equalization transfer sustained by the Value Added Tax (VAT) central revenue.<sup>3</sup> Equalization is split in two parts. The first is concerned with tax capacity, the second with needs. This latter is in turn divided between health needs and non-health needs. The reason why health needs are explicitly introduced in the formula is due to the presence of Essential Levels of Health Care (LEAs) set at central level.

The recent Constitutional Reform has added more to the debate, yet its implications for financing sources are still under scrutiny.<sup>4</sup> In any case, the new art. 117 explicitly reserves the central level the right to set essential levels of those services representing civil and social rights to be guaranteed within national borders. To this purpose, the central government holds the power of replacing regions in the case of their inactivity (art. 120).

#### 2. Fiscal federalism and health care

As compressed the history of the NHS above described may be<sup>5</sup>, it highlights that the fundamental issue in health financing has been for long time, and still is, the relationship between central government and regions about the appropriate spending level. This old and vexed issue has been possibly exacerbated, in the last decade, by the need for Italy to join the European Monetary Union (EMU), where limits on spending are clearly defined and cost containments are daily required.

At first glance, however, cost containment in health care may be much more an issue of the public/private mix rather than of the central/local organization. Yet, as health expenditures flow through regional budgeting, the issue of cost containment has *de facto* 

<sup>&</sup>lt;sup>3</sup> See Giarda (2000) and Liberati (2000).

<sup>&</sup>lt;sup>4</sup> See Giarda (2001).

<sup>&</sup>lt;sup>5</sup> More detailed analyses can be found in Ambrosanio (1996); Lorenzini and Petretto (2000); Liberati (2001).

<sup>&</sup>lt;sup>6</sup> See, for example, France (1991).

pervaded the debate about health federalism. Reasons for this analogy, in our view, are not always clear-cut and the suspect is that health federalism might conceal a shortcut for privatizing health.

It is therefore not a case that the current debate on health federalism is mainly stuck with three ideas:

- a) the need to take health expenditures under control;
- b) the need to reduce the inefficiency of health expenditures;
- c) the need to reduce moral hazard incentives to regions, leading to «soft budget constraints».

None of these reasons, however, has a direct connection with the traditional way of understanding fiscal federalism, at least not with the reasons why local governments should be preferred as supplier of local public goods. All reasons, indeed, impinges on preferences as an explanatory reason for decentralization, while at the same time none of them point out the nature of health care treatments. In this sense, health federalism is an incomplete model of fiscal federalism. Rather, as we will argue below, those reasons may connect with federalism by looking at those models formulated by Weingast (1995), Qian and Weingast (1997) and Qian and Roland (1998), where the role of market-preserving incentives and soft budget constraints are specifically addressed. But even in this case, in our view, the link is incorrectly applied to the Italian health sector.

#### 2.1. The level of health expenditures

Let us start from the first issue, the need to control the level of health expenditures. This need would imply excess spending in the past. An obvious problem arises from what should be considered excess spending and what should be the appropriate benchmark. Had we high absolute levels of health expenditures (a size problem)? Did health spending exhaust a large amount of the public budget, limiting resources for other uses (a composition problem)? Had we excessive levels in relation to output (an efficiency/equity problem)?

Warnings about limiting public spending are widespread since a decade. Health expenditures, as well as other expenditure sources, have been under pressure because of the need to limit the amount of public money allocated to them. In this sense, the changed ideological framework governments are now acting in is not health-specific, rather it embraces all sectors of public expenditures. Yet, for health expenditures there is a differential aspect, as unlike other expenditure branches, federalism is here strongly supported, basing on the idea that federalism by itself could generate expenditure savings. However, observing the dynamic of the expenditure level, there is no clear justification to claim for expenditure savings in absolute terms. In other words, Italy has not spent too much, if this level is measured by international standards. Evidence may be drawn from considering some usual spending indicators.

Table 1 reports the ratio between total health expenditures (THE) and GDP since the beginning of Eighties for selected OECD countries. Table 2 gives the same evidence considering only public expenditures on health (PHE). Italy is in a quite standard position

compared to the average levels. After a rising pattern above the EU average in the period 1988-1992, the ratio PHE/GDP has reduced since the beginning of Nineties, under the spending committment imposed by the European Union. Yet, the tools for governing health expenditures were basically the same as those governing the rise in the previous years. Increasing levels, instead, may be observed in Italy between 1999 and 2001, i.e. in a context where attention has been shifted to regions as the proper locus of responsibility for health expenditures, perhaps signalling that most of the cost containment before 1998 was in fact cost postponement.

In any case, no «anomalies» supporting federalism can be found basing on this simple indicator. To the contrary, all federal countries considered in the table and also many decentralised unitary countries show levels well above the Italian one.

Figure 1 gives the visual impact of the pattern of the ratio PHE/GDP, selecting years from table 2. Between 1980 (the time where the National Health Service was at regime in Italy) and 1998, the ratio PHE/GDP has everywhere increased, with the exception of Sweden, Denmark, Italy and Ireland. It is worth noting that for the first two countries, the reduction of the ratio has left them on a level that is still 1.5 percentage points above the Italian one.

Anomalies do not emerge even considering the public/private mix in health expenditures (figure 2). There is indeed no clear-cut relation between the level of total health expenditures and the public share of it. Countries spending more public resources are not spending too much. Quite obviously, data reported in figure 2 cannot make justice of the efficiency differentials among health care systems. Yet, they do give a warning on the idea that if decentralising is thought in reason of a larger involvement of the private sector in health expenditures, there is no evidence that this will bring with itself lower levels of total health expenditures.

Italy does not distinguish itself even when considering the weight of health expenditures on total public expenditures. Data for 1990 to 1997 (table 3) show that this weight is one of the lowest in Europe and lower than in US, where a growth of six percentage points in seven years is recorded.

Are then rates of growth a possible source of concern? Not even, according to data reported in figure 3. Positive rates of growth, in Italy, are quite in line with those of other countries. If an anomaly has to be found, it is the reductions occurred in 1994 and in 1995 due to the convergence imposed by the European Union and mainly set at central level. At the opposite side, growth in health expenditures is particularly worrying in 2000 and 2001 (6.7 per cent and 7.6 per cent, respectively). While the hypothesis that health expenditures is likely to grow in the near future for effects of an increasing demand can certainly be maintained, it is quite uncertain, on a theoretical point of view, the effects that health federalism would exert on this dynamic, unless federalism will stand for «privatization».

Finally, there is not even evidence that per capita health expenditures exhibit a particularly high level in Italy compared with other countries (figure 4). In 1998, at

purchasing power parity, US has a public per-capita spending of about 3.1 millions of old liras against two millions in Italy.<sup>7</sup>

Therefore, a compelling argument for health federalism should not remain on the issue of excess health spending nor on its out-of-control dynamic in past years, at least compared with the bulk of industrialised economies. Even within the context of the «perverse» model of financing health care in the past, the issue is not one of excess spending. Health deficits run in the past can hardly be considered excess spending if the NHF was systematically underfunded by the central government.

#### 2.2. The efficiency of health expenditure

To the extent that regions would be made responsible for health care treatments, it is said, the efficiency of the health sector will improve. It is worth noting that efficiency is here considered again as cost containment and not in the more familiar sense for the theories of fiscal federalism as potential advantages in the preference-revelation mechanism. Is this efficiency argument a compelling one in the central/regional debate?

Before 1998, it is hardly debatable that one of the main aim of the National Health Service was that of achieving a perhaps limited degree of efficiency jointly with a «satisfactory» degree of territorial equity and health-specific equity. Redistributive issues, to some extent, were at the core of the introduction of the NHS in 1978 and the history of the distributive criteria adopted since then to share the fund out among regions best witnesses this impression. In 1980 and 1981, the fund was basically distributed in per capita terms, weighted for three age classes and corrected to take into account child mortality (below age 12), the distribution of work injuries and professional diseases for those with age 13 to 60 and mortality of those above age 60. Since 1982, criteria were differentiated by specific health provisions, yet the bulk of the funds, under regional pressures, were distributed according to actual regional expenditures. From 1985 to 1991, criteria changed again: the per capita element was associated to age classes and indices of regional health consumption. In 1992, when the second health reform was passed, the concept of *«quota capitaria»* was introduced, to be associated, in 1996, with indices of health consumption by age and sex, besides other elements of need (e.g., mortality), all

<sup>&</sup>lt;sup>7</sup> Some caution should be used in reading these data. For example, in US part of the activity of public hospitals is paid by patients having private insurance. For this part, public hospitals actually behave as they were in the private sector, as the cost is fully covered. It is as if a part of public expenditure were not properly public.

<sup>&</sup>lt;sup>8</sup> The same impression is shared by Lorenzini and Petretto (2000).

<sup>&</sup>lt;sup>9</sup> This is actually what the agreement between central government and regions of August 2001 has explicitly recognized. Furthermore, in that document it is also agreed that the ratio PHE/GDP be set at a level of about six per cent, which is more than currently spent in Italy.

<sup>&</sup>lt;sup>10</sup> It is still suggested, for example, that the Italian version of fiscal federalism will depend on the ability to control health expenditures while at the same time guarantee a satisfactory degree of territorial equity (Bordignon *et al.*, 2002; 39).

<sup>&</sup>lt;sup>11</sup> It is indication of the nature of intergovernmental relationships in this period a statement by Buratti (1987; 66) who says that it is not known whether the coefficients used to distribute funds to regions derived from a serious investigation rather than from broad estimates. Some elements might make the second hypothesis prevailing.

merged in a quite complex mix.<sup>12</sup> Things have run almost the same way until 2000. It is worth noting that funding health has favoured different regions in different sub-periods, depending on the specific sub-period. Some evidence has been found that the South and the North-West of Italy were relatively more favoured by distributive criteria, while the practice of bailing out deficits has compensated many regions, especially in the South of Italy.<sup>13</sup> It is therefore not surprising that the deficit pattern has no correlation with the pattern of public health spending.<sup>14</sup>

Maximum efficiency *per se* was not in fact the core business of the NHS. To say more, other redistributive elements played a role in its functioning, as the provision of uniform levels of service basically free of charge and a generous use of labour in producing health services from which central governments have certainly gained some rent. Efficiency was simply exchanged with redistribution in terms of the usual trade-off between the two variables

Saying that the past NHS was not efficient has therefore only limited economic meaning. Being «non-efficient» was in the objective function of the policy-maker not for external constraints, but for a deliberate choice, with local governments participating in the achievement of territorial equity. It is for this reason, we argue, that territorial equity, the distribution of the NHF and health deficits cannot be seen separately. Underfunding NHF and running deficits were part of the method through which territorial equity was achieved. Without the former, the latter could hardly been achieved. This might be the reason why the past practice of bailing out regional deficits is now seen by many observers as a «normal» policy rather than an exceptional process. This impression is reinforced by observing that all actors involved in the game had their own returns in playing it.

Obviously, this is not to say that past solutions were good. But health federalism *per se* is hardly a convincing normative device to achieve efficiency, as it does not imply efficiency in the sense of cost containment as the classical public/private dichotomy might imply. Local governments might be as much as inefficient in providing local public goods. To this purporse, it is rather surprising that despite the attention paid to health sector, compelling evidence on its efficiency in relation to its equity aims has rarely been produced. This would have helped to understand, for example, the bargaining model emerged in the past twenty years between central and local governments.

#### 2.3. Moral hazard and soft budget constraints

One of the most debated reasons to decentralize health to regions and reforming the financing mechanism is the need to reduce moral hazard problems and the related issue of

<sup>&</sup>lt;sup>12</sup> To this purpose, Mapelli (1999) states that results on which the weights assigned to age classes are based are actually not known and that the Ministry of Health has never explained the model underlying the distribution of funds and never justified the use of the variables and the value associated with each parameter.

<sup>&</sup>lt;sup>13</sup> See Mapelli (1999).

<sup>&</sup>lt;sup>14</sup> See Brenna and Veronesi (2001).

soft budget constraints.<sup>15</sup> Roughly speaking, the argument is associated to the implicit insurance provided by the central government that it would bailout a subnational government which was unable to meet its financial commitments.<sup>16</sup> With federalism in health, it is said, these negative effects would either disappear or they will be strongly limited. This open the question of how health federalism in Italy may play a role in the moral hazard problem. It is here argued that its contribution may be weak.

To this purpose, it is convenient to distinguish two parts of health spending. The first is related to the public provision of Essential Levels of Health Care (LEAs), financed by central resources. The second is related either to possible region-specific additional costs of supplying LEAs or to additional health spending (besides LEAs). In these latter two hypotheses, regions will be left with the need to get funds from their own resources. For definitory purposes, we will identify this type of spending as «marginal», while expenditures on LEAs will be termed «intramarginal».

Both the moral hazard and budget constraint arguments impinges on differentiated preferences and informational advantages as reasons to have local governments providing local public goods.<sup>17</sup> Rather, they remain on those theories that have recently focused on federalism as a tool to preserve market incentives and to hard budget constraints.<sup>18</sup>

For example, in Qian and Roland (1998), a model is built where tax revenues are left where they are generated and full authority over public investment and subsidies is assigned to local governments. In these models it is explicitly recognized that partial fiscal federalism (i.e. financing from common pool) introduces the possibility of soft budget constraints. More important, in our view, is the underlying idea that federalism (and fiscal competition) is not good *per se* but only to the extent that it can induce endogenous restructuring and privatization. Federalism would need privatization to harden the budget constraint, yet privatizing is an alternative to federalism.<sup>19</sup>

In this sense, the association between federalism and hard budget constraints is incomplete. It might work if all regional spending were marginal.<sup>20</sup> The result is much more uncertain if the issue of intramarginal spending is introduced, as in LEAs. To approach the point, two issue need to be investigated. The first is how LEAs may intersect with federalism. The second is how LEAs, given that their supply is left to regions, may affect moral hazard and soft budget constraint issues. In the first case, we will argue that LEAs are at odds with federalism. In the second case, we will try to find convincing reasons why LEAs can hinder solving those problems.

Let us address the first issue. It is a widespread belief that not every health care treatment is a public good in the technical sense, nor it is local in the Oates' sense. Some of them are «mixed» goods, as they give appropriable as well as external benefits, but many others are «private», being rival and excludable. More important, some health care

<sup>&</sup>lt;sup>15</sup> See, for example, Brosio et al. (1994), Giarda (1995), Bosi and Tabellini (1995), Muraro (2000), Bordignon (2000), Lorenzini and Petretto (2000), Mapelli (2001), Pisauro (2001), Arachi and Zanardi (2001) and Bordignon *et al.* (2002).

<sup>&</sup>lt;sup>16</sup> See Pisauro (2001; 513).

<sup>&</sup>lt;sup>17</sup> Oates (1972).

<sup>&</sup>lt;sup>18</sup> See, for example, Qian and Roland (1998).

<sup>&</sup>lt;sup>19</sup> See, for example, Tanzi (1996).

<sup>&</sup>lt;sup>20</sup> But even in this case the soft budget constraint could not disappear. See Pisauro (2001).

treatments may be conceived as «merit» goods. 21 As it is known, one of the possible interpretations of this concept focuses on two main characteristics: the presence of external effects and a distorted set of individual preferences that might lead to either under or over-consumption. <sup>22</sup>

How does the concept of merit good intersect with federalism? Not very much, one can say. This is true, with a certain degree of abstraction, regardless of the possibility that the merit good argument develops with regard to the relationship between central governments and individuals or with regard to the relationship between central government and regions.

With regard to the first kind of relationship, the merit argument is not (only) in making LEAs «available», but (also) in making them available free of charge (or at a price covering a small fraction of the cost)<sup>23</sup>. This is actually what the central government is imposing to regions. In this sense, LEAs would certainly embody the classical characteristic of interference with individual preferences, yet a predominant role is assigned to the redistributive argument, as their provision is intended to guarantee «economic access». Does the presence of redistributive issues qualify the merit good argument? The answer is not clear-cut, as the theory of merit goods itself has gaps. Along the lines of Tiebout and Houston (1962), the merit good definition would not be appropriate when the underlying distribution of income is not felt as the «proper one». For example, they say, low-income housing might not be a merit good since at some more equal distribution of income it might no longer be considered to be «meritorious». Analogously, one could think of LEAs being not meritorious for some alternative and «more just» income distributions. When income distribution is introduced, the good should be best interpreted as a «necessity good», which is mostly, even though not exclusively, meritorious under consideration of income distribution. At an extreme, if everybody were able to access health care with her own resources, redistributive issues would disappear, yet the «availability» issue might remain. If the central interest for availability would survive the issue of economic access, health care would be a merit

By accepting that redistributive elements do not affect the merit good content of LEAs, federalism would have no role to play, as LEAs are a central interest. But federalism would have no role to play even by accepting that redistributive considerations qualify the good as a «necessity» good, as redistributive concern would be prevailing. Local governments are therefore an unnecessary structure, from a normative point of view, as it may well be conceived a central government directly providing LEAs free of charge to all

<sup>&</sup>lt;sup>21</sup> On this concept, see the traditional contribution by Musgrave (1957) and then Head (1966); McLure (1968); Head (1969), Pulsipher (1971).

<sup>&</sup>lt;sup>22</sup> It is worth noting that a distinction between an ordinary external effect and that associated with a merit good has been the subject of investigation in the literature on merit goods. As argued by Culver (1971), the satisfaction of merit wants violates an optimal allocation, whereas externalities need not to be impediment to the achievement of efficiency. In this sense, merit wants must involve externality relationships but an externality does not necessarily involve a merit want. For this reason, the policy reaction is generally different, as in the former case realizations of gains from trade is not possible. In this sense, McLure (1968) denied the nature of merit goods for resaleable in-kind transfers, as they would not involve interference with preferences. <sup>23</sup> See the DPCM of November, 29, 2001.

citizens. Intersection with federalism is here at the lowest level. Regions may only act as agents of the central government.

Let us now turn to the second type of relationship. Suppose that central government and regions all share the same idea on the appropriate levels of LEAs. In this case, the central government might confidently dealt with health care as a local public good, as it knows that even though regional citizens would vote for less health spending than desired by central government, regions will set the appropriate LEAs. In this case, however, it would be perfectly conceivable that regions will finance them with their own resources, as the central merit good argument is shared.<sup>24</sup> The nation-wide redistributive content of the merit argument would therefore disappear, while the «availability» argument would remain. But in this case federalism is possible only because opinions on LEAs are shared.

If they were not, the central government could not deal with health care as a local public good, as underprovision might occur. In this latter case, it would need to force local governments choosing LEAs, at least for the «availability» argument. But then, self-financing by regions would become hard, as LEAs are not shared, and funding from central government will be required, regardless of how health treatments will be sold to individuals (either free of charge or at prices covering costs). Doing so, regions would again act as agents of the central government. Intersection of LEAs with federalism would again be weak.

Therefore, making local governments responsible for spending central resources on central interests may only reflect a more convenient organizational arrangement. But in this very limited sense, it is worth saying again, local governments are agencies of the central government, not autonomous institutions. In LEAs, no preference-revelation mechanism is involved. Combining LEAs with federalism is likely to be a hard task.

Let us now turn to the second issue, how LEAs affect the moral hazard issue, given that regions cannot be other than agents of the central government in this specific field. Four points are worth noting.

First, as funding from central government is required, LEAs will drive the financial engagement of the central government in the health sector. However, this will leave intact both the common pool and the soft budget constraint problem. One fundamental requirement to harden the budget constraint is a clear distribution of responsibilities among levels of government.<sup>25</sup> Central mandates can be a source of problem even when they are pre-funded as in the case of LEAs, as regional governments can never perceive them as their own responsibility. The involvement of the central government in local decisions, by setting standards or levels of health care treatments, may make local governments to incorrectly perceive their financial position. While responsibility for marginal spending may help hardening the budget constraint, uncertainty on financing the intramarginal spending may leave it soft. At the best, the net effect would be unclear, as regions will always have space to claim for additional funds on the intramarginal spending.<sup>26</sup> To remedy this shortcoming, some authors have consistently suggested that

<sup>&</sup>lt;sup>24</sup> The same could occur, obviously, if regions were left the possibility to set local standards. But in this case, the central argument for merit good would disappear.

<sup>&</sup>lt;sup>25</sup> See, for example, Pisauro (2001).

<sup>&</sup>lt;sup>26</sup> Setting limits as those contained in the agreement of August 2001, where funding will develop with the GDP growth (for the period 2002-2004), can hardly commit both parts if it will be proved

regions should be left decisions on the standard of service to be provided.<sup>27</sup> But this will leave uncovered the merit argument, converting LEAs in a local public good problem.

Second, controls, it is said, might compensate for the undesirable feature of having regions spending central government resources. This idea is a bit naïve. On this subject, the new financing system is not a dramatic change compared to the past. Methods of controlling local governments by use of various forms of indicators were set by many laws in the past and never accomplished. For example, it is enough to recall that in 1992 the central government adopted an ordinary method to verify and monitor qualities, quantities and costs of health care provisions, in order to guarantee to all citizens a certain standard of medical assistance. Regions were also explicitly constrained to verify the presence of minimum requirements in the medical structures as well as to use efficiency and quality indicators in assessing health care provisions. This reform looked good on paper.<sup>28</sup> Nevertheless this wide and complex outfit, since 1992 regions have stored up health deficits of about fifty thousands billions of old liras. What the new system of financing regions is proposing is to set a monitoring activity that is not, as far as it understood, qualitatively different from past attempts. It is worth recalling that difficulties of controlling local governments have often been claimed for discouraging both healthspecific grants and overlapping competencies. Paradoxically, tight controls would entail more central government, not less.

Third, the persistence of central funding is likely to promote new bargaining relationships between central government and regions in order to preserve LEAs. For example, the *ex ante* bargaining on the appropriate measure of VAT share may replace the *ex post* bargaining on extra-funds needed to cover health deficits. Some flavour of this can be appreciated by looking at the increase of the Vat share to 38.5 per cent from the initial 25.7 per cent.<sup>29</sup> Implicit bargaining could possibly develop also in leaving regions margins to apply LEAs. It is likely that this activity will not go in the direction of hardening budget constraints.

Fourth, LEAs will always prevent regions from failing. Bankruptcy, when there is a strong central interest in the spending function, sounds more as a theoretical curiosity than as a real option. How should regions fail when providing services for the central government? If so, who will provide for health services in that case? If the central government has to replace the bankrupted region to preserve citizens'interests, it is tantamount to fill additional needs *ex ante* avoiding enormous political and social costs (so bargaining is likely to increase). Bankruptcy might be more correctly conceived and sustained only in the case where there is no central government interest in the functions performed by the Regions, but even in this case it would bring with itself discouraging costs <sup>30</sup>

To sum up: LEAs have strong characteristics of «merit good» that are at odds with federalism; for this reason, regions may at the best act as agents of the central government, which is not likely to produce significant effects on the soft budget

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ex post that funds were insufficient. This kind of contracts, even though specified in great detail, have always a certain degree of incompleteness.

<sup>&</sup>lt;sup>27</sup> See Reviglio (1999).

<sup>&</sup>lt;sup>28</sup> A detailed description is in France (2001b).

<sup>&</sup>lt;sup>29</sup> Just to recall that the initial level was set not above 20 per cent.

<sup>&</sup>lt;sup>30</sup> See, for example, Pisauro (2001).

constraint issue in a consistent dynamic view. At the worst, regions will bargain on LEAs, with redistributive consequences, to which we now turn.

## 3. Why does the central government want regions responsible for health care? A non-analytical explanation.

A thought-provoking view is to see health federalism as a tool to progressively dismiss redistribution, in particular through specific spending items. In this sense, federalism in health is just a mirror of the general crisis of the public expenditure as a tool for governing the economy.

For exogenous reasons not to be discussed here, there are now serious limits on redistributive activity, in particular on the idea that redistribution might occur through specific spending items. Many international organizations, since many years, insist on the need of structural reforms in expenditure sectors, typically health, pensions and public employment. The European Union lives with deficit ceilings. All this, for central governments, increases the political costs of deviation, so that it is now becoming more important and politically rewarding to compress spending activity. This modified set-up makes traditionally redistributive sectors (like health) more pervaded by social conflicts than by social consent. If the central government cannot use health to achieve territorial equity in the same way it did in the past, health federalism would answer this difficulty.

Political advantages may be gained in shifting responsibility to regions. First, by making regions responsible for marginal spending, the central government is shifting to regions the burden of increasing taxes to finance social services, hardly an available option at central level. Recent examples are striking: regional health tickets have been introduced by ten regions with very low political costs to cover marginal health expenditures;<sup>31</sup> some regions have delisted pharmaceutical products to contain costs; Irpef has been increased by seven regions (even with progressive rates). In this sense, regions are having success in a politically costly transaction, that of increasing the tax burden to finance politically sensible services without rising dramatic political reactions. Political costs are diluted.

Second, through LEAs the central government pre-determines funds to be devolved to local governments for its interests, yet responsibility and accountability for actual supply is perceived as a function of the local governments. Recent interventions by Corte dei Conti in Italy have proved that regions may be directly called to order on health spending.

Are consequences on redistribution likely? The answer is probably yes. Does the central government care about? The answer is probably no. Three points are worth noting.

First, national policy makers wants to be involved in spending if they can gain electoral support by redistributing. Redistribution is now not rewarding at central level. On the other hand, regional policy-makers can hardly achieve support by redistributing at local level among their residents. The first reason is that local redistribution is much more interdicted by mobility than central redistribution is. The second reason is that regional

<sup>&</sup>lt;sup>31</sup> Just recall the political fights about health tickets when introduced by central governments for the same reasons in past years.

policy makers wish to become national policy-maker, and redistribution does not serve the scope as efficiency does. The third reason is that local income distributions are usually relatively less dispersed than the national income distribution, so that redistributive policies run the risk of not being supported by majority voting. Local policy makers are therefore quite skeptical of supporting redistributive policies at local levels.

Second, if the central government will put limits to funding, some space is likely to be given to regions to endogenously adjust LEAs. Rather than adjusting financing sources, LEAs will be adjusted to available resources. Support to this is the explicit provision that LEAs have already been set basing on resources agreed on in August 2001 by central and regional governments. It is there established that, within LEAs, there are areas where the element of «essentiality» will require specific regional programming responsibility, with regions asked to define conditions to provide them, realizing financial equilibrium between available resources and the set of essential health care treatments. This idea was already put in place in the Dlgs. 56/00. This would imply, in a consistent dynamic view, that if the central government will increase LEAs it would provide for additional resources. This is indeed explicitly set in the agreement. On the other hand, it should imply that a reduction of available resources will require flexibility on application of LEAs. In this perspective «essential» may be only defined as «consistent with resources». Standards, over time, will be driven by resources.

Third, the structure of LEAs is not rock-like. Sufficient space is left to regions to adjust those LEAs showing a potential inappropriate organizational profile. This definition means that hospital or day hospital treatments may be defined as inappropriate if they could be dealt with in a different setting with the same benefit to the patient and less resources. Regions will decide on it as well as on the quality and quantity of a non-trivial list of medical treatments. Looking at this list, inappropriateness might conceal rationing. This impression gains some support by observing that from the guidelines on the role of regions in LEAs, it seems they have gained the power of interpreting the concept of appropriateness restrictively, with the aim of preventing over-provision of some medical assistance and under-provision of other.

If this interpretation is correct, health federalism will make LEAs a flexible concept; if not, the reform will not change the past bargaining model significantly. At the same time, it will make regions more prone to privatize (or either cutting or closing) in order to limit the need to levy additional taxes on both marginal spending and LEAs over the national funding. Even though the central government insists on the national character of the NHS, the main aim of health federalism will be to contain public expenditures rather than enforcing standards.<sup>33</sup>

In this perspective, the action of the central government may be associated with some theoretical frameworks that have gained some attention in explaining the relationships between the political power and regulation authorities. These models, known as *shift-the-responsibility* models<sup>34</sup>, have the property of drawing a separation between the <u>perceived</u> power and the <u>actual</u> power of managing a spending function. The central government shifts responsibility to regions; quite interestingly, the shifting chain may extend from

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<sup>&</sup>lt;sup>32</sup> Problems were pointed out already at that time. See again Granaglia (2001).

<sup>&</sup>lt;sup>33</sup> On this line also France (2001b).

<sup>&</sup>lt;sup>34</sup> On this line of reasoning, see Patrizii (1996) who adds the privatization of public enterprises and public utilities as further examples of this behaviour.

regions to eventually end up with the private sector.<sup>35</sup> This has led some authors to define expenditure shifting as «budgetary aesthetics».<sup>36</sup> All this process is likely to reduce the redistributive content of health care, endogenously inducing regional privatization if the aim of cost containment will prevail.<sup>37</sup> Either the central government will pay more resources to maintain LEAs (which is unlikely because of spending commitment), or, more likely, regions will compress LEAs (and marginal spending on health) in face of diminishing real resources.<sup>38</sup>

The theoretical literature that has first associated federalism and privatization provide for good examples. It is not a case that best examples come from past socialist and now in transition economies. Basing on Qian and Roland (1998), the case of China is very impressive. It is certainly true that there, federalism has achieved the aim of hardening budget constraints. But it did, as local governments were given the power to privatize. Decentralization entailed devolution to local governments of supervision of state-owned enterprises, with the effect of lowering workers wages and bonuses in case of poor performance. It also entailed a massive lay off of excess workers from state-owned enterprises, extensive privatization of some of them and dismission of others. There is no doubt that federalism has there worked, but it did mainly to allow the central government to dilute the political costs of privatizing and dismissing state-owned activities.

In this perspective, health federalism in Italy may be more a shortcut for privatization. Fragmenting responsibilities will make this process politically easier and less visible to citizens, while at the same time the dismission of the redistributive activity will not penalize politicians. Many doubts arise about the ability of this new system to cope with soft regional budget constraints, pre-determination of funds, and availability of constant (or increasing) levels of public health care. This sounds more like an illusion of fiscal federalism than a real policy option.

<sup>&</sup>lt;sup>35</sup> See, for example, the recent proposal formulated in Lombardia of privatizing hospitals and assessing them on the basis of indicators (including patients' evaluation!). In the case of a negative result, hospitals may be assigned to a board that will decide on what to do, including selling it. Who will be responsible for malfunctioning? The region or the private sector? And who will be responsible for closing it? The board or the region?

<sup>&</sup>lt;sup>36</sup> See Mor (1994).

<sup>&</sup>lt;sup>37</sup> See also Granaglia (2001).

Canada provides for a good lesson on intergovernmental relationships between federal government and provinces. The most important medical program, *Medicare*, started as a 50/50 bargain on the key services of hospitals and medical insurance, it was down to about 27 per cent in cash from federal government by 1978, it is now down to 14 cent-on-the-dollar. Banting (1998) argues that this progressive reduction of the federal contribution will create tensions between provinces and the federal government about the spending power. On the Canadian experience, see France (2001a). Selinger (2002) also conceptualizes the content of intergovernmental relations in Canada when saying that «It is really not sufficient for a federal partner to be at the table setting the standards and only providing 14 cent dollars in cash».

#### **Conclusions**

Health federalism may be at odds with national health standards. For these latter, a merit good argument may apply for which regions may only act as agents of the central government. In a dynamic perspective, these two possibly incompatible roles, one as autonomous government and the other as an agent for the promotion of the national interest in health care, are likely to hinder the solution of the soft budget constraint problem. Alternatively, regions will be given space either to negotiate LEAs or to apply them restrictively with redistributive consequences. In this paper, a non-analytical explanation of Italian health federalism has been attempted. From the point of view of the central government, health federalism is a tool to progressively dismiss redistribution and to open the route to health privatization, while at the same time dilute the political costs of otherwise hardly available policy options.

#### References

- Ambrosanio M.F. (19..), «Sanità e contenimento del deficit pubblico», Quaderni CIFREL, Milano.
- Arachi G., Zanardi A. (2001), «La devoluzione nel paese del dualismo», in Bernardi L., Zanardi A. (eds.), *La finanza pubblica italiana Rapporto 2001*, Il Mulino, Bologna, 349-374.
- Banting K.G. (1998), The federal spending power and social policy: a historical perspective, mimeo.
- Bordignon M. (2000), *Problems of soft budget constraints in intergovernmental relationships: the case of Italy*, Quaderni dell'Istituto di Economia e Finanza, n.30.
- Bordignon M. Mapelli V., Turati G. (2002), Fiscal Federalism and National Health Service in the Italian System of Governments, in Rapporto ISAE, Roma.
- Bosi P., Tabellini G. (1995), *Il finanziamento di regioni ed enti locali*, Note della Commissione tecnica sulla spesa pubblica, Ministry of Treasury.
- Brenna A., Veronesi E. (2001) Il Finanziamento di un Sistema Sanitario in Transizione: il Caso dell'Italia (mimeo).
- Brosio G., Bondonio D., Pola G. (1994), *Una proposta di federalismo fiscale*, Fondazione Agnelli, Torino.
- Buglione E., France G. (1983), «Skewed fiscal federalism in Italy: implications for public expenditure control», *Public budgeting and finance*, **3**, 43-63.
- Buratti C. (1987) Il Servizio Sanitario Nazionale fra Decentramento Istituzionale e Controllo Centrale della Spesa, in Muraro G. (ed.), *Problemi Finanziari del Servizio* Sanitario Nazionale, Franco Angeli, Milano.
- Cavazzuti F., Giannini S. (1982), La Riforma Malata, Il Mulino, Bologna.
- Culyer R. (1971), «Merit goods and the welfare economics of coercion», *Public Finance*, **26**, 546-572.
- France G. (1991), Cost Containment in a Public-Private Health Care System: the Case of Italy, *Public Budgeting and Finance*, 11, 63-74.
- France G. (2001a), «Standard nazionali e conflitti intergovernativi in Canada», in France G. (ed.), *Federalismo, regionalismo e standard sanitari nazionali*, Giuffrè, Milano, 125-167.
- France G. (2001b), *Evolution of Health Care Reform in Italy*, European Health Care Discussion Group, London School of Economics, London.
- Giarda P. (1995), Regioni e federalismo fiscale, Il Mulino, Bologna.
- Giarda P. (2000), *Il federalismo fiscale in attuazione della L: 133/99: aspetti tecnici, ragioni e problemi aperti*, Audizione nell'ambito dell'esame dello schema di decreto legislativo recante disposizioni in materia di federalismo fiscale, febbraio, Roma.
- Giarda P. (2001), «Le regole del federalismo fiscale nell'art. 119: un economista di fronte alla nuova Costituzione», *Le Regioni*, **6**.
- Granaglia E. (2001), Federalismo fiscale e redistribuzione. Alcuni nodi irrisolti del DLgs. 56/00 in materia di sanità pubblica, mimeo.
- Head J. (1966), «On merit goods», Finanzarchiv, 25, 1-29.
- Head J. (1969), «Merit goods revisited», Finanzarchiv, 28, 214-225.
- Liberati P. (2000), Compartecipazione o Trasferimento Perequativo? Il Ruolo dell'Iva nel Nuovo Sistema di Finanziamento Regionale, *Rivista di Diritto Finanziario e Scienza delle Finanze*, 49, 589-617.
- Liberati P. (2001) Sanità e Federalismo Fiscale in Italia, in France G. (ed.) *Federalismo*, regionalismo e standard sanitari nazionali: quattro paesi quattro approcci, Giuffrè, Milano.

- Lorenzini S., Petretto A. (2000), «Il finanziamento pubblico della sanità in una prospettiva di federalismo fiscale», in Fiorentini G. (ed.), *I servizi sanitari in Italia*, Il Mulino, Bologna, 93-159.
- Lucioni C., Rossi F. (1983), «L'evoluzione istituzionale del sistema sanitario nazionale», in Brenna A. (ed.), *Il governo della spesa sanitaria*, Milano, Istituto per la Ricerca di Economia Sanitaria.
- Mapelli V. (1999), *L'allocazione delle risorse nel Servizio Sanitario Nazionale*, Commissione Tecnica per la Spesa Pubblica Ricerche, Roma.
- Mapelli V. (2001) La Sanità Cambia Marcia o Rotta? in Bernardi L., Zanardi A. (eds) *La Finanza Pubblica Italiana, Rapporto 2001*, Il Mulino, Bologna.
- McLure (1968), «Merit wants: a normatively empty box», Finanzarchiv, 27, 474-483.
- Mor G. (1994), «Il riordino della sanità nella crisi dello Stato sociale e della Costituzione materiale», *Le Regioni*, **4**, 957-
- Muraro G. (2000), «Sanità e federalismo fiscale», Politiche sanitarie, 1, 17-24.
- Musgrave R.A. (1957), «A multiple theory of budget determination», *Finanzarchiv*, **17**, 333-343.
- Oates W. (1972) Fiscal Federalism, Harcourt Brace Jovanovich, New York.
- Patrizii V. (1996), Alcune riflessioni sul federalismo fiscale, mimeo.
- Petretto A. (ed.) (1997), Economia della Sanità, Il Mulino, Bologna.
- Pisauro G. (2001), «Intergovernmental relations and fiscal discipline: between commons and soft budget constraints», *Rivista di diritto finanziario e scienza delle finanze*, **4**, 511-544.
- Pulsipher A.G. (1971), «The properties and relevancy of merit goods», *Finanzarchiv*, **30**, 266-286.
- Qian Y., Roland (1998), «Federalism and soft budget constraint», *American Economic Review*, **5**, 1143-1162.
- Qian Y., Weingast B.R. (1997), «Federalism as a commitment to preserving market incentives», *Journal of Economic Perspectives*, **11**, 83-92.
- Reviglio F. (1999), «Sanità senza vincoli di spesa?», Economia pubblica, 4, 5-30.
- Selinger G. (2002), *Presentation to Commission on the future of health care in Canada*, Finance Minister of Manitoba, mimeo.
- Tanzi V. (1996), On fiscal federalism: issues to worry about, mimeo.
- Tiebout C., Houston D.B. (1962), «Metropolitan finance reconsidered: budget functions and multi-level governments», *Review of Economics and Statistics*, **4**, 412-417.
- Weingast B.R. (1995), «The Economic role of political institutions: market-preserving federalism and economic development», *Journal of Law, Economics and Organization*, 11, 1-31.

Table 1 - Total health expenditures as a % of GDP

					1401		1.0.												
Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Germany	8.8	9.2	9.1	9.0	9.1	9.3	9.2	9.2	9.4	8.8	8.7	9.4	9.9	10.0	10.0	10.4	10.5	10.4	10.6
France	7.6	7.9	8.0	8.2	8.5	8.5	8.5	8.5	8.6	8.7	8.9	9.1	9.4	9.8	9.7	9.9	9.7	9.9	9.5
Sweden	9.4	9.5	9.6	9.5	9.3	9.0	8.7	8.8	8.7	8.8	8.8	8.7	8.8	8.9	8.7	8.5	8.6	8.6	8.4
Belgium	6.5	7.0	7.2	7.4	7.3	7.3	7.4	7.5	7.5	7.5	7.5	7.9	8.0	8.1	8.0	7.9	7.8	7.6	8.8
US	9.1	9.4	10.2	10.4	10.3	10.6	10.8	11.1	11.5	11.9	12.6	13.4	13.9	14.1	14.1	14.1	14.0	14.0	13.6
Canada	7.3	7.5	8.3	8.5	8.3	8.4	8.7	8.6	8.5	8.7	9.2	9.9	10.3	10.2	9.9	9.7	9.6	9.3	9.5
Netherlands	7.9	8.1	8.3	8.3	8.0	7.9	8.0	8.1	8.1	8.2	8.3	8.6	8.8	9.0	8.8	8.8	8.6	8.5	8.6
Norway	7.0	6.8	6.9	7.1	6.7	6.7	7.2	7.7	7.9	7.7	7.8	8.1	8.2	8.1	7.8	8.0	7.9	7.4	8.6
Spain	5.6	5.8	5.9	5.9	5.7	5.6	5.6	5.7	6.3	6.5	6.9	7.0	7.3	7.5	7.4	7.3	7.4	7.4	7.1
Australia	7.3	7.4	7.7	7.6	7.6	7.7	8.0	7.8	7.7	7.8	8.3	8.6	8.6	8.5	8.5	8.4	8.5	8.3	8.5
Austria	7.7	6.8	6.7	6.5	6.6	6.7	6.9	7.1	7.1	7.3	7.2	7.2	7.6	8.0	8.0	8.0	8.0	7.9	7.6
Japan	6.4	6.5	6.7	6.8	6.5	6.7	6.6	6.6	6.3	6.1	6.0	6.0	6.4	6.6	7.0	7.2	7.2	7.3	7.6
United Kingdom	5.6	5.9	5.8	6.0	5.9	5.9	5.9	5.9	5.8	5.8	6.0	6.5	6.9	6.9	6.9	6.9	6.9	6.7	6.7
Finland	6.5	6.7	6.8	6.9	6.9	7.3	7.4	7.5	7.3	7.4	8.0	9.1	9.3	8.4	7.9	7.6	7.4	7.3	6.9
Italy	7.0	6.9	7.0	7.1	6.9	7.1	7.0	7.4	7.6	7.7	8.1	8.4	8.5	8.6	8.4	7.7	7.8	7.6	8.4
Greece	3.6	3.7	3.6	3.8	3.7	4.0	4.4	4.3	4.1	4.1	4.2	4.2	4.5	5.0	5.4	5.8	6.8	7.1	8.3
Ireland	8.7	8.3	8.1	8.2	7.8	7.9	7.7	7.4	7.0	6.6	6.7	7.0	7.3	7.3	7.2	7.0	7.0	7.0	6.4
Denmark	8.7	8.9	8.9	8.6	8.3	8.2	7.9	8.2	8.4	8.4	8.2	8.2	8.2	8.4	8.2	8.0	8.0	7.7	8.3
Portugal	5.8	6.2	6.1	5.8	5.9	6.3	6.9	6.7	7.1	6.6	6.5	7.2	7.4	7.7	7.8	8.2	8.3	8.2	7.8
Non-weighted average	7.2	7.3	7.4	7.5	7.3	7.4	7.5	7.6	7.6	7.6	7.8	8.1	8.4	8.5	8.4	8.4	8.4	8.3	8.5
EU non-weighted average	7.1	7.2	7.2	7.2	7.1	7.2	7.3	7.3	7.4	7.3	7.4	7.8	8.0	8.1	8.0	8.0	8.1	8.0	8.1

Table 2 - Public health expenditures as a % of GDP

•	Spesa sanitaria pubblica																		
Country	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Germany	7.0	7.2	7.1	7.0	7.1	7.2	7.1	7.1	7.3	6.7	6.7	7.3	7.8	7.7	7.8	8.1	8.2	8.1	7.9
France	6.0	6.3	6.3	6.4	6.6	6.5	6.5	6.5	6.4	6.5	6.6	6.8	7.0	7.3	7.6	8.0	7.8	7.7	7.2
Sweden	8.7	8.7	8.8	8.7	8.5	8.1	7.9	7.9	7.8	7.9	7.9	7.6	7.7	7.7	7.4	7.1	7.2	7.1	7.0
Belgium	5.4	5.7	6.2	6.1	6.0	6.0	5.9	6.2	6.7	6.6	6.7	6.9	7.1	7.2	7.1	6.9	6.8	6.7	7.9
US	3.9	4.0	4.3	4.3	4.2	4.3	4.4	4.6	4.6	4.8	5.1	5.6	5.9	6.1	6.3	6.5	6.5	6.5	6.1
Canada	5.5	5.7	6.3	6.5	6.4	6.4	6.5	6.5	6.3	6.5	6.9	7.4	7.6	7.4	7.1	6.9	6.7	6.4	6.6
Netherlands	5.9	6.1	6.3	6.2	6.0	5.9	5.8	6.0	5.8	6.0	6.1	6.4	6.8	7.0	6.8	6.7	6.2	6.1	6.0
Norway	5.9	5.9	6.0	6.1	5.8	5.7	6.3	6.6	6.7	6.5	6.5	6.8	7.0	6.7	6.6	6.6	6.5	6.1	7.1
Spain	4.5	4.5	4.7	5.1	4.7	4.6	4.5	4.5	5.0	5.1	5.4	5.5	5.8	5.9	5.8	5.7	5.8	5.8	5.4
Australia	4.6	4.6	4.7	4.9	5.5	5.5	5.6	5.5	5.3	5.3	5.6	5.7	5.8	5.7	5.7	5.6	5.9	5.7	5.9
Austria	5.3	5.2	5.1	5.0	5.0	5.1	5.3	5.4	5.4	5.4	5.3	5.3	5.6	5.9	5.9	5.8	5.7	5.7	5.8
Japan	4.5	4.6	4.8	4.9	4.8	4.7	4.8	4.8	4.8	4.7	4.6	4.7	4.9	5.2	5.4	5.6	5.7	5.7	6.0
United Kingdom	5.0	5.3	5.1	5.2	5.2	5.0	5.0	5.0	4.9	4.9	5.1	5.4	5.9	5.8	5.8	5.8	5.8	5.7	5.6
Finland	5.1	5.3	5.4	5.5	5.4	5.7	5.9	6.0	5.8	5.9	6.5	7.4	7.4	6.4	5.9	5.7	5.8	5.6	5.3
Italy	5.6	5.4	5.5	5.6	5.4	5.5	5.3	5.7	5.9	5.9	6.3	6.6	6.5	6.3	5.9	5.4	5.5	5.3	5.4
Greece	2.9	3.1	3.3	3.4	3.3	3.3	3.6	3.4	3.4	3.5	3.5	3.4	3.4	3.8	4.1	4.4	5.2	5.3	4.7
Ireland	7.1	6.8	6.5	6.4	6.1	6.0	5.8	5.4	5.0	4.7	4.9	5.2	5.5	5.5	5.4	5.2	5.2	5.3	4.8
Denmark	7.7	7.9	7.9	7.6	7.3	7.3	7.0	7.2	7.4	7.3	7.1	7.1	7.1	7.2	7.1	6.8	5.2	5.0	6.8
Portugal	3.7	4.0	3.4	3.0	3.0	3.4	3.7	3.5	3.8	3.5	4.3	4.5	4.4	4.8	4.9	5.0	4.9	4.9	5.2
Non-weighted average	5.5	5.6	5.7	5.7	5.6	5.6	5.6	5.7	5.7	5.7	5.8	6.1	6.3	6.3	6.2	6.2	6.1	6.0	6.1
EU non-weighted average	5.7	5.8	5.8	5.8	5.7	5.7	5.7	5.7	5.8	5.7	5.9	6.1	6.3	6.3	6.2	6.2	6.1	6.0	6.1

Table 3 - Public health expenditures as a % of total public expenditures

Country	1990	1991	1992	1993	1994	1995	1996	1997
Germany	14.4	15.0	15.7	15.2	15.4	14.1	16.8	16.6
France	13.4	13.0	13.0	12.9	12.8	13.5	13.3	13.6
Netherlands	10.5	10.9	11.6	11.9	12.1	11.2	11.7	12.7
Spain	12.5	12.3	12.6	12.2	12.2	13.8	13.2	13.4
United Kingdom	12.0	12.7	13.2	13.2	13.3	13.9	15.1	14.5
Sweden	12.9	12.1	10.9	10.5	10.4	10.7	10.2	11.5
Italy	11.6	12.4	11.6	10.6	10.5	9.9	10.2	11.0
US	13.4	14.1	14.9	15.8	16.8	18.2	19.2	19.4
EU average	12.6	12.9	13.0	12.7	12.8	12.8	13.5	13.8

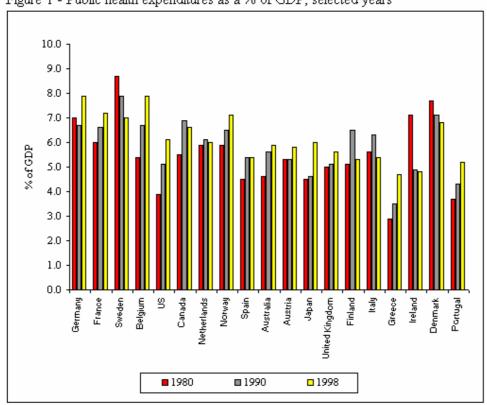


Figure 1 - Public health expenditures as a % of GDP, selected years

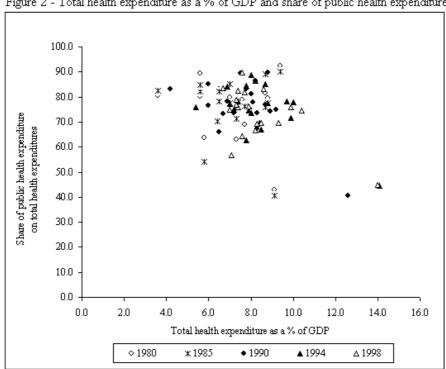


Figure 2 - Total health expenditure as a % of GDP and share of public health expenditure

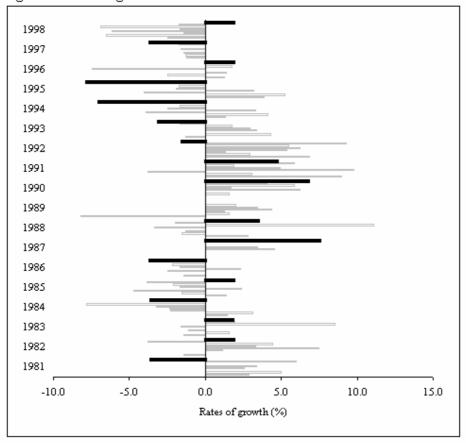


Figure 3 - Rates of growth of the ratio PHE/GDP

Italy in bold

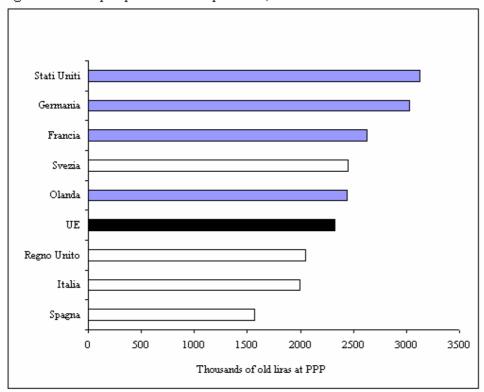


Figure 4 - Per capita public health expenditure, 1998