

Issues raised by the impact of tax reforms and regional devolution on health-care financing in Spain, 1996–2002

Jaume Puig-Junoy

Department of Economics and Business, Universitat Pompeu Fabra, C/Trias Fargas 25–27, 34-08005 Barcelona, Spain; e-mail: jaume.puig@upf.edu

Joan Rovira

World Bank and Department of Economic Theory, Universitat de Barcelona, Spain; e-mail: jrovira@worldbank.org

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Abstract. The authors aim to describe and discuss the likely effects of three recent policy measures related to the financing of the Spanish National Health System which have been introduced over the period 1996–2002 under the conservative Popular Party government. First, tax incentives for private health insurance were introduced with the 1999 income tax reform. Second, in 2002 the devolution of health-services management to regional governments was completed along with reform of the regional mechanism of allocation of public funds (intergovernmental grants, tax revenues, and fiscal accountability). Third, earmarked indirect taxes were introduced in 2002 as a source of additional revenues devoted to public-health financing.

1 Introduction

In 1999 Spain had one of the highest life expectancies among OECD countries. However, health expenditure remained at a relatively moderate level. Publicly financed health services in Spain are for the most part also publicly provided, with some contracting-out arrangements with private and local public institutions. The Spanish health system is largely based on public financing, with public production also playing a prominent role. Although the Spanish health-care system appears to perform quite well in terms of aggregate financing and overall traditional health indicators, health-care reform ranks very high on the Spanish political agenda.

The beginning of the process of reform of the Spanish health-care system can be traced to the passing of the General Health Law (*Ley General de Sanidad/LGS*) in 1986, although some components and relevant pieces of legislation were established earlier. The main provisions of this law were to achieve universal coverage, to move from payroll taxes to general taxes as the main source of finance, and gradually to devolve public management responsibilities to the regional governments. At the beginning of the 1980s the focus of the reform was on the move from a social security type of system to a National Health Service (NHS) type, with universal coverage, financed from general taxation. The concern for equity and the reduction of inequalities were among the main stated priorities. In the late 1980s and especially in the 1990s cost containment became the first priority and the focus of the reform shifted towards changes in the financing, organisational, and management models. The key concepts would now be efficiency, incentives, the separation of financing and provision, risk sharing, and so on.

The reform of the health-care system has been going on alongside a political process of decentralisation of the state, which has markedly affected health-service reform. The Spanish health-care system of the 1970s was a very centralised one. Since then it has undergone several types of decentralisation process. The most important of these was probably the transfer of the responsibility for managing health services from

the INSALUD (the social security agency formerly responsible for the financing and delivery of health services) to the autonomous communities (ACs); this followed the political decentralisation of the state into autonomous communities, according to the Constitution of 1978.

Some of the initial objectives of the reform, such as universalisation and tax-based financing, have almost been accomplished. However, other important objectives have only been partially attained, or have simply been abandoned under the Popular Party (PP) government, in power since March 1996.

Health-care policy under the conservative Popular Party has seen the introduction of far-reaching regulatory changes in finance sources, decentralisation, pharmaceutical regulation, and organisational models. An overview of Spanish health-care reforms in the late 1980s and up until the second half of the 1990s can be found in the English literature (López-Casasnovas, 1999; Nonell and Borrell, 2001; European Observatory on Health Care Systems, 2000; Rodríguez et al, 2000; Rovira and Darbà, 2001). From its inception, critics and the political opposition accused conservative health-care policy of promoting health-care privatisation and private insurance at the expense of public services. The conservative government completed the decentralisation process in 2002 and has introduced a new regional financing system. The decentralisation of the health system (transfer or devolution of power to the ACs) began in 1981, and was completed in 2002 by the conservative government.

As in most social processes, it is difficult to evaluate health-care financing reforms in Spain, that is, to make a judgment on the effects of the changes introduced. Apart from the intrinsic difficulty of relating effects to causes in a single historical process, the task is complicated by the limited number of formal rigorous evaluations, and by data availability.

In this paper we aim to describe and discuss the likely effects of three recent policy measures concerning the financing of the Spanish NHS which have been introduced over the period 1996–2002 by the Spanish conservative Popular Party government: tax incentives for private health insurance; changes in the regional allocation of public funds (intergovernmental grants, tax revenues, and fiscal accountability); and the introduction of earmarked indirect taxes.

2 Introduction of tax incentives for health insurance (1999 income tax reform)

Fiscal expenses (deductions on taxes) from private insurance are a complementary source of public financing for private health expenses in Spain. Until December 1998 the Spanish personal income tax (IRPF) regime included a deduction of 15% on the tax liability for all health expenditures incurred by taxpayers or their dependents owing to illness or childbirth. These expenses included the cost of private health insurance and also direct payments to health providers—irrespective of whether the services paid for were covered by the public system or not (it even included user pharmaceutical copayments). Luxury treatments (such as plastic surgery when not included in public benefits, and spa treatments) were excluded from the deduction (López-Casasnovas and Planas, 2001).

This 15% deduction operated as a public subsidy that was almost proportional to the price at the moment of consumption. This policy generated incentives for over-consumption of private health services. The equity aspects of this policy are even more controversial (Freire, 1999), even though empirical results indicate that the deduction was in fact nearly proportional to income (Martínez, 1998). However, the deduction was regressive for the lower income deciles. An empirical evaluation of this tax expenditure (López-Nicolás, 2002) concluded that it was regressive, at least in the sense that the absolute amounts deducted were greater for richer households.

Arguments in favour of policy measures that provide incentives to pay for private insurance premiums are manifold (Propper, 2001). Some economic models suggest that systems in which there is private provision alongside public provision, allowing richer individuals to opt out of public coverage, may be redistributive and may help to keep taxes lower. Another argument in favour of such policies is the fact that if richer individuals use private care, this will reduce demand in the public sector and hence the available resources per capita will be increased.

Nevertheless, the efficiency of this tax deduction in Spain was brought seriously into question by the fact that it subsidised concurrent expenses (private expenses incurred for services also financed under public insurance). Here, it is not clear whether the effect of the tax deduction is a reduction in the use of public services or an overall increase in health-service use.

The income tax reform introduced in Spain in 1999 included a reform in the tax treatment of private health insurance payments. The deduction on the amount of all private health expenditures applied until the end of 1998, when it was replaced by the present system. Private health insurance premiums paid by the employer will not be considered as taxable income for IRPF.

The tax effects of this measure are manifold. First, premium exclusion from IRPF is equivalent to a subsidy the value of which depends on the marginal income tax for each individual. Personal income tax in Spain is based on increasing marginal rates. In this sense, Spanish income tax is very progressive, and it can be argued that the tax subsidy introduced in 1999 is clearly regressive, as the subsidy is proportional to the marginal tax rate—which increases with income. The second effect is that the specific tax on insurance premiums (IES) is not applicable to these health insurance premiums paid by the employer. Third, since 1999 these private health insurance premiums have represented a cost to the employer firm, and hence reduce profits by the same amount. However, it would be misleading to consider that the firm is implicitly subsidised according to the marginal corporate tax on company profits (IS). Assuming that labour costs are invariant with respect to the introduction of the tax subsidy, there is no change in corporate tax revenue that could be attributable to it. That is, the labour cost for the firm is the same, and the only change that has occurred is in the composition of this cost between monetary wages and insurance premiums.

Some likely positive effects of this measure have been argued (López-Casasnovas et al, 2001). First, the overconsumption effect is probably reduced given that direct payments to the provider are not subsidised. Second, the new tax treatment of private health insurance provides incentives for collective (corporation) insurance, thus reducing adverse selection and risk-selection incentives in the private insurance market.

However, the new system probably presents some major efficiency and equity problems, discussed below, that make this financing policy questionable at the least.

First, it has been illustrated that with the new tax treatment the net cost of insurance may become negative for the employed (Ibern, 1999); thus moral hazard continues to be present in the decision to buy private insurance. The tax subsidy may distort insurance decisions and spending may be too high.

Second, privately insured concurrent services (double insurance) continue to be highly subsidised, with a high implicit public cost (reduced IRPF and IES revenues). The cost of this tax treatment of health insurance remains officially unknown. This subsidy could be justified if it were assumed that it provides incentives for lower use of public services to a sufficient degree to offset the public cost of tax expenses. The problem is that the result depends on the price elasticity of private provider use, and on the elasticity of substitution between private and public health-service use. López-Nicolás (2001) observed that individuals with private insurance in Catalonia did not

show a higher use of health services, and that their pressure on public resources was low—contributing to lower congestion in public services. Despite these apparently positive results obtained for Catalonia, empirical evidence is neither clear nor sufficient.

The effects of tax incentives depend to a very large extent on whether they provide incentives, and partially finance supplemental insurance, for noncovered services or services already covered under the basic package. In theory, both type of services are included in the Spanish personal income tax incentives. In fact, in the case of supplemental insurance, the final impact has to be empirically determined because the additional service use might increase or decrease use of services covered under the basic plan (Cutler, 2002). Welfare costs of tax incentives on supplemental insurance for services already covered give rise not only to equity implications related to access and affordability, but also to significant moral hazard and adverse selection effects. However, examples can be found in which the result is that resources are saved by the public financing agency (Cutler, 2002).

Third, the new system has reduced individual choice given that after the reform only private insurance premiums are subsidised. In fact, it appears that inequity may increase because only those employed individuals who have more capacity to negotiate wages will obtain the tax subsidy.

Fourth, financing regressively may also be closely associated with this fiscal policy because now the capped tax subsidy is in fact proportional to marginal tax rates in IRPF, which increase exponentially in relation to individual income.

3 Regional allocation of funds

Spain is divided into seventeen regions, called autonomous communities (ACs), with regional governments that were created following the guidelines established in the democratic Constitution ratified in 1978. There are two completely different systems of decentralisation: the foral regime, instituted only for the Basque Country and Navarre; and the common regime, for the other fifteen regions.

The primary difference between the two systems is that regions under the foral regime have authority to raise taxes locally, whereas regions under the common regime do not have significant taxing authority. [However, the most recent reform, passed in July 2001 and effective as of 2002 (Fiscal and Financial Policy Council, Sistema de financiación de las Comunidades Autónomas de Régimen Común, 27 July 2001 *Boletín Oficial de las Cortes* 7 November 2001), devolves some taxing autonomy to regions under the common regime.] In terms of spending, both types of region have similar responsibilities (Castells, 2001).

The conservative government completed the transfer of health-service management to the ACs in 2002. As of that year the ACs manage a level of expenditure comparable with that of the central state, excluding pensions. However, the completion of devolution is not free from controversy. First, the political priority given to managing health services at the autonomous level is not equally high in all ACs. Second, the transfer is only possible when the central government provides immediate improvements in the financing of those regions with lower public spending per capita. If such improvements are not made, some ACs will have no incentive to accept the transfer of responsibility for underfunded services from the central government. Third, decentralisation of health services to small regions (for example, La Rioja with 264 000 inhabitants in 1999) means that current health-service integration and efficient scale economies in some specialised services may be threatened. Fourth, transaction costs stemming from bilateral contracts between ACs in order to assure coordination of services and patient flows will have to be taken into account. And fifth, if autonomy and equity objectives are pursued by ACs trying to become self-sufficient in providing highly

specialised health services, then both costs and overall inefficiency will increase significantly.

Under the foral regime the main taxes—income, corporate, wealth, inheritance, and wealth transfer—are fully administered by the regional governments. To compensate for the services that the central government provides to the region, the regional government pays an amount to the central government (*cupo* for the Basque Country and *aportación* for Navarre). The common regime has been characterised by having a considerable amount of expenditure responsibility but little revenue autonomy, although revisions of the system tend to give more revenue autonomy. The regions under this regime have, until very recently, been financed mainly by central government transfers. The regions can impose some taxes and fees, although these represent a very small percentage of their revenues. They also have ceded taxes, although until recently they had no authority to set tax rates and bases for these taxes. Ceded taxes initially included the wealth tax, the inheritance tax, a tax on wealth transfer, and taxes on gambling, and accounted for approximately 10% of the budget of the regions. The reform of 1997, and the most recent reform effective as of 2002, extend the ceded taxes to 33% of income tax, 40% of some specific taxes on production (tobacco, alcohol, petrol, etc), and 35% of value added tax, although this last tax was ceded without normative power.

Public funds have been allocated to the decentralised ACs (the regional level) according to different criteria.

In 1993 a financing agreement was reached for the period 1993–97. The financing system was unified on the basis of a rough population criterion, according to criteria established in the 1986 General Health Law.

The second agreement, valid for the period 1997–2001, was still based on the crude population criterion (95% of the budget), but two nontransparent adjustments were introduced: one to account for patient flows between ACs, and the other for medical training. In this second agreement, additional funds related to savings in temporary work incapacity allowances were introduced. However, several problems remained in the system: inaccurate capitation criteria; lack of transparency in additional criteria; and lack of efficiency incentives at the regional level, given that central transfers continued to be the main revenue source.

Health-budget increases were restricted in 1997 with the introduction of some major changes in the budgetary mechanism. Until that year, the approved initial health budget (in the central or regional authorities) was automatically increased when effective pharmaceutical expenditure (and other minor expenses whose budget constraint could be relaxed) exceeded the initial budget. This mechanism was usually employed by the public sector as a way of circumventing financial restrictions initially imposed by the budget constraint approved by parliament; budget constraint was, therefore, very soft. Underbudgeting health expenditure for budget-setting purposes was common practice (López-Casasnovas, 1999). In 1997 the budgetary rules were changed, making it impossible to increase the budget of a particular expenditure item without lowering another item by the same amount. This measure significantly reduced deviations from the initial budget, both in the central government and in the ACs.

Regional differences in per capita health-care spending among autonomous communities have been a crucial issue in Spanish health policy since the beginning of the devolution process in 1981, and have had far-reaching financial and political consequences. However, it is increasingly recognised that the geographical allocation of health-care expenditure during the 1990s showed a clear trend to convergence in unadjusted per capita terms, and that regional differences in public spending per capita

are even greater in services such as education and unemployment subsidies than in health services (Fundación Encuentro, 2002).

It can be observed that the rules of this regional financing system, in force until the end of 2001, have resulted in simple and predictable a priori trends in per capita spending (table 1), as discussed below.

First, regional differences in per capita spending among the five decentralised common regime ACs have been reduced since the beginning of the devolution process. For five regions, this represents a partial per capita convergence process applied to heterogeneous regional health care needs (equality of financial resources independent of need). This partial convergence in per capita terms was imposed by the rough capitation criterion in the LGS, and by the prevailing political criteria. However, the result far from guarantees an improvement in any accepted sense of geographical equity (that is, equality of resources for equal need) because it corresponds to the observation of unadjusted per capita expenditure. For example, following rough capitation criteria, financial allocation per capita in Catalonia, the first AC to receive the health-care transfer, was progressively reduced by one tenth annually between 1983 and 1993, to the average per capita level. In 1999 nonadjusted per capita financial allocation in Catalonia was 5.1% higher than the average per capita level in Spain, excluding the two foral ACs. Note that the comparison is unfair because patient-flow compensation is included as an allocation to ACs providing services to patients coming from other regions.

The second trend caused by this system is that inequalities in terms of per capita spending continue to be higher among nondecentralised ACs (those regions under INSALUD management) than among the five decentralised ACs belonging to the common-regime group. Therefore, the convergence effect has only been observed for (that is, imposed on) the five decentralised common-regime ACs. The third trend to be noted is that the greatest differences in levels of per capita financial capacity are seen

Table 1. Regional levels of per capita public expenditure on health care in Spain (average per capita expenditure in common regime autonomous communities = 100) (source: Fundación Encuentro, 2002; author's estimation based on Fiscal and Financial Policy Council, "Sistema de financiación de las Comunidades Autónomas de Régimen Común", 27 July 2001).

| Autonomous community | Public expenditure in 1999 | Expenditure needs level guaranteed for 2002 |
|----------------------------------|----------------------------|---|
| Common regime | 100.00 | 100.0 |
| <i>Decentralised before 2002</i> | | |
| Catalonia | 100.10 | 99.6 |
| Andalusia | 93.93 | 96.0 |
| Community of Valencia | 91.98 | 98.7 |
| Galicia | 100.52 | 104.1 |
| Canary Islands | 115.41 | 100.6 |
| <i>Decentralised in 2002</i> | | |
| Aragon | 112.78 | 106.4 |
| Principality of Asturias | 111.21 | 105.3 |
| Balearic Islands | 90.51 | 102.0 |
| Cantabria | 107.15 | 102.1 |
| Castile-La Mancha | 95.78 | 104.1 |
| Castile and Leon | 103.16 | 107.5 |
| Extremadura | 101.07 | 102.4 |
| La Rioja | 101.00 | 103.3 |
| Madrid | 102.84 | 96.8 |
| Region of Murcia | 97.12 | 96.3 |

in the two ACs of the foral regime, which have special fiscal powers. For example, per capita spending in the Basque Country is 12% higher than the per capita level in Catalonia.

The regional financing system for health services introduced in 2002 is characterised by several notable changes. First, health services are integrated under the general regional financing system, which includes all public services (education, health, social services, etc). However, ACs must devote to health services at least a minimum amount established by the central government (expenditure-needs level), which can be raised subject to autonomous decisions with regard to financing sources. This expenditure-needs level is calculated as a weighted function of total covered population (75%), population over 65 years (24.5%), and insularity (0.5%). Regional variation in the aged population will probably result in greater differences in expenditure per capita than under the old system, in which this factor was not taken into consideration (see table 1).

The rough capitation criterion employed until 2001 imposed the same expenditure per capita in all decentralised regions. The range of variation in per capita expenditure was very low—around 5%. The coefficient of variation for per capita expenditure is clearly lower than in many other decentralised countries (López-Casasnovas, 2000). Furthermore, even in this case, the differences observed in Spanish health-care expenditure per capita at the regional level have very often been the object of political debate concerning their equity justification. The main reason for this may be the lack of any objective needs-based and transparent formula for regional allocation of resources. However, the so-called ‘expenditure needs level formula’, introduced in 2002, is also the result of a political agreement and has not been based on any empirical evidence on the relation between resources and needs. Therefore, it is not possible to conclude that the new allocation formula has introduced any needs adjustment.

This expenditure-needs level is guaranteed by the government and it will increase annually according to the growth rate in state revenues obtained from partially ceded taxes (ITE), or, during the first three years only (until 2004), according to the annual GDP increase if this is higher than the preceding rate. Thus, the integration of regional financing of health services in the overall regional financing system is subject to some unjustified requirements. The minimum health expenditure level imposed on regions appears to be contrary to their right of autonomy. It would be more in accordance with patient-rights protection to improve the definition of guaranteed services and access conditions to all Spanish citizens regardless of their region of residence. Not only does the equity criterion thus imposed (the so-called ‘expenditure needs level’) in practice fail to meet any usually accepted definition of equity but, furthermore, the homogeneous dynamic evolution for all ACs is at odds with heterogeneous evolving needs.

Second, the fiscal accountability of ACs is increased by the extension of ceded taxes to indirect taxation (see above), and by the increase in normative power over direct taxes. The result is a notable reduction in the amount of transfers coming from central government, and an increase in tax revenues (67%). Third, a compensation system (cohesion fund) has to be established by the Ministry of Health and Consumption in order to compensate for the cost of patient flows between ACs. Fourth, a sufficiency fund is designed to set up a transfer system to ensure that there is enough fiscal capacity (mainly represented by revenues from ceded taxes) to cover expenditure needs. Fifth, a levelling allocation system that especially affects health services was also established. It is anticipated that a levelling allocation, financed by central government, will be negotiated between the state and an AC if a deviation of greater than 3 points in the regional proportion of covered population is observed when compared with the base year.

In the new regional financing system set up for 2002, along with completion of the devolution process to all ACs, regional fiscal accountability for increases in health-care

expenditure is partially devolved to ACs. Regional increases in health-care expenditure, as an expression of regional preferences, may now come from regional decisions concerning the redistribution of funds between competing public services, or a regional growth rate of revenues from ceded taxes that is higher than the ITE growth rate, or, alternatively, from the use of regional normative tax power.

Nevertheless, some significant problems remain unsolved in the 2002 regional allocation system. First, although ACs' fiscal accountability has greatly increased with the new system, there is far from full fiscal responsibility. The proportion which ceded taxes form of total AC revenues has notably increased (to more than 80% of total revenues in some ACs), but the normative power over revenues has not increased proportionally (normative power applies to less than 20% of ACs' revenues). Second, some specific taxes, related to unhealthy consumption (alcohol and tobacco), are lower in Spain than in other EU member states. This could be an argument in favour of allowing ACs some normative power over these taxes, as regional tax powers over these specific taxes could have been an alternative within the context of EU-harmonisation criteria. However, ACs are not allowed any normative power over specific taxes.

Third, fiscal powers increase the efficiency incentives of ACs, but potential regional inequalities in health-services financing may become more visible and vulnerable to the political debate on inequity. Attention has repeatedly been drawn to the likelihood that this move will encourage political controversy about the trade-off between efficiency and equity stemming from the extension of regional fiscal powers (Rico, 2000). As can be seen in table 1, regional differences in per capita level according to the expenditure-needs level fixed for 2002 will be smaller than they were before completion of the devolution process, and this can be partially explained by an apparently needs-related factor—ageing. Regional expenditure above this guaranteed regional level would be the result of a higher additional fiscal effort, and judgments require more caution in this case. In fact, transparency and more evidence-based criteria in the regional allocation system and clarification of equity objectives will be needed to introduce a more informed political debate. One critical question is to define the guaranteed level of service coverage common to all regions, and also the maximum level of divergence in regional coverage given that regional differences are the expected result of the devolution process.

4 The introduction of earmarked indirect taxes for health

The most important changes in the overall sources of health-care financing that occurred in the period analysed in this paper are as follows: first, payroll taxes were abandoned for health-care financing, and second, earmarked indirect taxes were introduced as the source for additional revenues devoted to public health-care financing.

4.1 Abandonment of payroll taxes

In the last two decades, the Spanish health-care system has undergone a radical change in its sources of financing, from a typical social security model of financing, based on payroll contributions, to an NHS model, based on general taxation. This change was initiated in 1988 in parallel with a substantial extension of the population covered by the NHS. The 1999 Public Budget Law established that the general budget would progressively increase its share as a funding source of the NHS: this share increased from 69% in 1993 to 83% in 1996, and 100% in 1999.

This change in financing sources was introduced in coherence with the separation and clarification of social security services, which implied that a universal service such as health care should not be financed by payroll contributions. However, the abandonment of payroll taxes is not in accordance with the way that coverage rights are recognised.

Population coverage continues to be dependent on contributing to social security, being a pensioner, or lacking economic resources.

Furthermore, the equity effects and efficiency incentives stemming from the abandonment of payroll taxes are not at all clear. Although payroll contributions present a certain level of regressivity, Spanish overall taxes were only slightly progressive at the beginning of the 1990s (Calonge and Manresa, 2001). The suits index, a progressivity measure, is equal to -1 when all taxes are paid by the poorest taxpayer, and is equal to 1 if taxes are all paid by the richest. In 1990 payroll contributions were slightly regressive: employee contributions showed a suits index value of -0.072 and the employer contribution a value of -0.045 . Payroll taxes were abandoned for financing health care in 1999 and were substituted by general taxes, a time-variant mix of direct and indirect taxes.

The most important change is that since 1999 marginal increases in health-care expenditure have been financed by additional tax revenues, rather than by payroll taxes. These tax revenues increasingly come from indirect taxes, given the relative decline in direct taxes that occurred in the 1990s. Therefore, the abandonment of payroll taxes does not always involve an increase in the equity of health-care financing, as was expected (López-Casasnovas, 2000). However, this result would have been reversed if the direct tax participation in the tax mix had been increased or even maintained. Another effect of this financing change is that general taxes as a financing source reduce the visibility of health expenditures, and may also increase fiscal illusion for health-care expenditure.

4.2 The role of specific indirect taxes

The rates of specific taxes (on alcohol, tobacco, petrol, etc) were not increased between 1999 and 2001. Major increases in some specific taxes were introduced in 2002 in order to reduce the tax differential with EU countries, and in order to obtain additional resources to finance the increased costs attributed to the new regional financing system and the completion of the decentralisation of health services. The government allowed the ten ACs scheduled for decentralisation in 2002 to choose the amount that was most in their favour: either the historical cost of health services in each region, or the result of the calculation of the estimated-need formula established in the new regional financing system set up for 2002. Indirect tax increases seem also to be justified as a means to fulfil the absence of deficit condition imposed by the Budget Stability Law introduced at the end of 2001. In this context, the central government planned to obtain additional resources specifically devoted to financing public health services from a new tax on petrol consumption introduced in 2002 (0.024 € per litre). This new tax will increase state budget revenues and will be compulsorily spent on public health services. The petrol tax is the most important of the specific taxes, accounting for approximately 60% of specific tax revenues.

Autonomous communities will have the normative right to raise (or not) this new petrol tax (0.001 € per litre in 2002; and 0.024 € per litre in three years), but the revenues will likewise be compulsorily devoted to financing public regional health services. If ACs do not use this taxation power to autonomously raise the new petrol tax, then they will not receive the additional resources to finance health services generated by the new petrol tax from central government. The reason for this is that the increase in revenues is partially ceded to ACs, but exactly the same amount will be subtracted from the sufficiency fund introduced with the new regional financing system set up in 2002. Thus, revenues from the new petrol tax raised by the government do not really increase health-service financing, despite public government claims that revenues from the new tax will be devoted to health-care financing.

Raising specific taxes to finance additional increases in public health care expenditure may reduce fiscal illusion and, by operating as a sort of price, it may also help to

reduce cost-unconscious demands made not only by consumers and physicians but also by regional governments (improving fiscal accountability).

However, tax choice can also present some major disadvantages in the generation of additional resources for public health care financing. First, petrol taxes affect a consumption good with a low price elasticity, but a consumption which is unrelated to negative health externalities, in contrast to the case with taxation on nonhealthy consumption (tobacco and alcohol taxation). Thus, the only justification for the choice of petrol for taxation is revenue capacity, as opposed to the Pigouvian or efficiency-related objectives that would be present in the case of tobacco or alcohol taxation. Second, the revenue-raising capacity is very limited. The increase introduced in 2002 is expected to generate tax revenues to a value of €750 million, which represents less than 2% of public health care expenditure. Clearly, ACs' capacity to use this tax to raise regional tax revenues devoted to health care is too restrictive to allow a significant increase in health-care expenditures. It should be noted that income elasticity in Spain is higher for tobacco consumption than for petrol demand. Third, it is not at all clear what advantages are to be gained from linking petrol taxes to health-care financing, as petrol taxes may be subject to unexpected volatility that may adversely affect the stability of health-care financing. Fourth, empirical evidence indicates that the use of indirect taxes as additional sources of revenue for health-care financing introduces regressivity into the financing system. In Spain specific taxes are more regressive than overall tax revenues. The suits index is equal to 0.045 for overall Spanish tax revenues (including payroll contributions), but -0.091 for specific tax revenues (Calonge and Manresa, 2001). Then, an increase in specific taxes devoted to health services could contribute to a slight reduction in the progressivity of the financing system. However, one has to consider that petrol taxes are less regressive than other special taxes such as tobacco-consumption and alcohol-consumption taxes.

At the same time, in the political context, it appears that there is no intention to increase or extend the copayment system, which has so far only been applied to pharmaceuticals, to other health services. However, there is evidence that this copayment system is at a low level compared with that in other EU countries, and it also represents a decreasing proportion of the price financed by the patient (8.5% of the consumer price in 1996, and only 7.1% in 2000). It may be argued that some low intensity copayments might also be considered as an alternative revenue source for the public health system with less negative effects than indirect taxes, from the point of view of income distribution, if suitably designed.

5 Summary and conclusion

Policy measures can be assessed in many different ways from the applied economics point of view. One can ascertain whether the measures are consistent with the stated aims of the policymaker—for instance, with the proposals made in the electoral program of the Popular Party. They can also be assessed against more general health policy criteria such as equity, efficiency, regional autonomy and responsibility, sustainability, etc, as stated by general laws; or they can be assessed via any criteria relevant to the analyst. Any of these options may be legitimate. It is essential, however, that the objectives or criteria against which the policy is assessed be defined in an operational and unambiguous way. It is also important to separate the discussion of policy goals from the discussion of to what degree the policy measures are appropriate for attaining a given end.

In this paper we have described and discussed some issues related to the impact of tax reforms and regional devolution on health-care financing in Spain. Three main policy reforms were identified after 1996 which may introduce major changes into the financing of the Spanish NHS: tax incentives for private health insurance; changes in

the regional allocation of public funds (intergovernmental grants, tax revenues, and fiscal accountability); and the introduction of earmarked indirect taxes.

The main conclusions reached in this paper are as follows. First, the reform in the tax treatment of private insurance introduced in the 1999 income tax reform presents some major efficiency and equity problems that make this reform questionable. These problems are related, with a likely increase in moral hazard in the decision to buy private insurance, resource savings for the public agency have to be empirically established, individual choice is reduced in comparison with the previous system, and a contribution to the decrease of financial progressivity of the health system.

Second, the new regional financing system for health services introduced in 2002, along with the completion of the devolution process, implied the integration of health services within the general regional financing system and a notable increase in regional taxation powers and in regional fiscal accountability in financing health services. Despite the likely potential contribution of these policies to improvement in health-services efficiency, it is observed that some significant problems remain unsolved under the new regional allocation system. The main limitations of this system reported in this paper are as follows: regional fiscal accountability is only partial; normative regional power over some specific taxes clearly related to unhealthy consumption, which could easily be raised because their level is below that in other EU states, has not been transferred to regions; and, transparent and more evidence-based equity criteria to judge regional allocation of resources are still lacking.

Third, in 2002 earmarked indirect taxes were introduced as the preferred source of additional revenues to be devoted to public health care financing. ACs may use their taxation powers and autonomously raise the new petrol tax in order to raise additional revenues. Despite the potential revenue capacity of the petrol tax, the fiscal capacity transferred to the regions is really limited. It has been also observed that the petrol tax does not share some of the efficiency-related advantages of other specific taxes, such as those on tobacco and alcohol consumption. Another likely problem related to this policy is that it could also contribute to a slight decrease in financing progressivity.

Although the public sector continues to play a key role in finance, it has been widely observed that the simple share of public finance in total health-care expenditure hides the fact that differences in payment sources have implications both for vertical and for horizontal equity in payment for health care (Propper, 2001). The results at the beginning of the 1990s indicated that health-care financing was slightly progressive in Spain (Wagstaff et al, 1999). In fact, Spanish health-care financing measured according to the Kakwani Index was more progressive than in countries such as Switzerland, the United States, the Netherlands, Germany, Portugal, Sweden, and Denmark. However, as has been pointed out in this paper, financing reforms undertaken by the conservative Spanish government since 1996 have introduced notable changes into the mix of direct and indirect taxes, social insurance contributions, private insurance premiums, and direct payments to providers. The progressivity of health-care financing should be empirically reestimated in order to provide a suitable measure of the impact of these changes.

With the completion of the Spanish devolution process and the integration of health financing into the general regional financing system, concern has been expressed in the political debate regarding potential related inequity increases and lack of solidarity. It is undisputed that the decentralisation of health services must be accompanied by the development of coordination and cooperation policies—based on multilateral or bilateral agreements—in order to improve the level of health-care integration (an efficiency condition), and patient rights throughout the state (and also in all EU countries). However, there is no research evidence indicating that the devolution process has worsened or will worsen geographical inequity in Spain.

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References

- Calonge S, Manresa A, 2001, "La incidencia impositiva y la redistribución de la renta en España: un análisis empírico" [Tax incidence and income redistribution in Spain: an empirical analysis] *Papeles de Economía Española* **88** 216–229
- Castells A, 2001, "The role of intergovernmental finance in achieving diversity and cohesion: the case of Spain" *Environment and Planning C: Government and Policy* **19** 189–206
- Cutler D, 2002, "Health care and the public sector", WP 8802, National Bureau of Economic Research, Cambridge, MA
- European Observatory on Health Care Systems, 2000 *Spain 2000* WHO Regional Office for Europe, Madrid
- Freire J M, 1999, "La nueva fiscalidad de los seguros sanitarios privados y el Sistema Nacional de Salud" [The new taxation of private health insurance in the National Health System] *Gaceta Sanitaria* **13** 233–236
- Fundación Encuentro, 2002, "España 2002" [Spain 2002], <http://www.fund-encuentro.org>
- Ibern P, 1999, "Seguros sanitarios colectivos y desgravación fiscal" [Health insurance and fiscal incentives] *Gaceta Sanitaria* **13** 236–238
- López-Casasnovas G, 1999, "Cost containment in health care: the case of the eighties to 1997", in *Health Care and Cost Containment in the European Union* Eds E Mossialos, J Le Grand (Ashgate, Aldershot, Hants) pp 401–441
- López-Casasnovas G, 2000, "Is there a perfect financing system for health care? Some reflections from Spain" *Europe Blanche XXII* 13–14 October, Paris, pages 23–32
- López-Casasnovas G, Planas I, 2001, "Co-payments in European health care systems: the Spanish approach", working paper, Pompeu Fabra University, Barcelona
- López-Casasnovas G, Martínez E, Durán A, 2001, "Tratamiento fiscal de los factores de riesgo para la salud y del gasto sanitario: revisión y propuestas de reforma" [Fiscal treatment of risk factors and health expenditure: survey and reform proposals] *Hacienda Pública Española* **156**(1) 185–203
- López-Nicolás A, 2001, "Seguros sanitarios y gasto público en España: un modelo de microsimulación para las políticas de gastos fiscales en sanidad" [Health insurance and public expenditure in Spain: a microsimulation model for fiscal expenditure policies in Spain] WP P.T.N.° 12/01, Instituto de Estudios Fiscales, Madrid
- López-Nicolás A, 2002, "Unobserved heterogeneity and censoring in the demand for health care", in *Econometric Analysis of Health Data* Eds A M Jones, O O'Donnell (John Wiley, Chichester, Sussex) pp 181–188
- Martínez E, 1998, "Las deducciones en el IRPF por gasto sanitario privado: situación y posible reforma" [Private health expenditure deductions in personal income tax: situation and possible reform] *Papeles de Economía Española* **76** 273–284
- Nonell R, Borrell J R, 2001, "Public demand for medicines, price regulation, and government–industry relationships in Spain" *Environment and Planning C: Government and Policy* **19** 119–134
- Propper C, 2001, "Expenditure on healthcare in the UK: a review of the issues" *Fiscal Studies* **22**(2) 151–183
- Rico A, 2000, "Health policy under asymmetric federalism: twenty years of regional devolution in Spain" *Eurohealth* **6**(3) 28–29
- Rodríguez M, Scheffler R M, Agnew J D, 2000, "An update on Spain's health care system: is it time for managed competition?" *Health Policy* **51** 109–131
- Rovira J, Darbà J, 2001, "Pharmaceutical pricing and reimbursement in Spain" *The European Journal of Health Economics* **2**(1) 39–43
- Wagstaff A, van Doorslaer E, et al, 1999, "Equity in the finance of health care: some further international comparisons" *Journal of Health Economics* **18** 263–290