

HYPOTHECATED HEALTH TAXES

An evaluation of recent proposals

Andrew Jones and Alan Duncan



Office of Health Economics
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FOREWORD

The subject of earmarked or hypothecated taxes dropped out of the mainstream of public finance theory a great many years ago. It is doubtful whether many of today's economists learnt anything about it in either their undergraduate or graduate days. The reason was that economists concentrated on such principles of taxation as who benefits or who can afford to pay for a given level of public expenditure. The latter question was determined either within the theory of public goods and externalities or as part of an analysis of improvements in the distribution of income. Some economists were interested in political theories of tax and expenditure determination, although tax and expenditure were not usually related except on occasion in crude commonsense terms. For example, there were those who advocated low taxes as a means of reducing public expenditure, and who opposed tax increases as a means of balancing the budget because they would validate the existing scale of public provision.

Earmarking did not seem to make a lot of sense since there seemed to be nothing intrinsic to a particular tax to warrant relating it explicitly to a specific area of public expenditure, and no other. In addition, it was hard to see the logic of saying that the desirability of this item of public expenditure could be determined by the yield of this tax. There is a logical distinction between saying 'an x per cent rise in expenditure on nursery schools may require an increase of y percentage points in the basic rate of income tax', and 'we have earmarked y percentage points in the basic rate of income tax to determine what can be spent on nursery schools'.

Having said that, there has been a growing interest in hypothecation. One reason for this is at first glance paradoxical. Opinion polls show that people favour increases in the scale of public provision of health and education. At the same time while the same polls appear to show that people recognise the tax consequences of that, when it comes to exercising their role as electors, they show some reluctance to put their money where their mouth is, so to speak. (One should not exaggerate this point. The two opposition parties, taking them broadly as advocates of higher public expenditure, did gain more votes than the conservatives at the last general election, who themselves proceeded to raise taxes and public expenditure!)

A second reason why hypothecation might be attractive is that people may not trust the government, whoever they are. Thus, they would accept tax increases for health, but not for something else. Earmarking the proceeds of a tax or a tax increase may offer some safeguard.

Thirdly, it is worth noting that the national lottery is in the form of an earmarked tax. The treatment of the lottery in the national accounts has been such as not to define the part that goes to the arts and other good causes as taxation as it comes in and public expenditure as it goes out. But it could well be interpreted that way and it looks as if the Treasury has now moved to adopt that classification. More to the point, there is no doubt that we have here a form of hypothecation.

For all these reasons the present booklet is to be welcomed. It offers an easily comprehensible account of the main arguments and places them within a practical framework. It offers a useful survey of recent advocacy of hypothecation (not least the political), but allows the interested reader to come to a balanced conclusion on his own. Thus it will help to foster the kind of serious debate we need on this subject, and also to clarify the broader questions of the future scale and structure of public expenditure and public finance. It will not surprise anyone to be told there are deeper theoretical economic questions to be examined in this field. Some of them are highly technical. The present paper will be followed by another which goes further into these difficult matters. But the present paper is self contained, and is a serious contribution to the debate.

MAURICE PESTON
House of Lords

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SUMMARY

- Hypothecated health taxes are not a new idea but there has been a resurgence of interest in their use, with organisations ranging from the Institute for Economic Affairs, the British Medical Association, National Economic Research Associates, and the Liberal Democrats discussing the possibility.
- Most advocates of hypothecated funding argue that its greater transparency and responsiveness will increase the revenue available for the NHS, increase the autonomy of the NHS from political interference, and encourage equity in health care finance. We attempt to provide a systematic review of the economic arguments, practical experience and empirical evidence underlying these claims.
- The prime force behind calls for a hypothecated health tax seems to lie in the widespread belief that the NHS is under-funded. We argue that hypothecation *per se* will not address this issue unless a mechanism is provided for public preferences to influence the level of the tax and to ensure a genuine linkage between the tax revenue and health expenditure.
- A review of recent trends shows that VAT is the only current source of tax revenue to have out-grown NHS expenditure in real terms. But the evidence also shows that indirect taxes are regressive and incompatible with the equity objective of funding health care according to ability to pay.
- Evidence from recent opinion polls does indicate widespread public support for greater tax-financed spending on the NHS. However the opinion poll data tend to be rather volatile over time.
- The report gives a critical appraisal of proposals for hypothecated health taxes associated with the Institute for Economic Affairs (IEA), National Economic Research Associates (NERA), the British Medical Association (BMA), and the Liberal Democrats.
- In a report for the IEA, Bracewell-Milnes (1991) discusses the labelling of a component of income tax for the NHS, along with the earmarking of revenue from NICs, and the extension of tax concessions for private health insurance.
- NERA (1993) propose an income-related compulsory insurance scheme, based on the current system of NICs. This is seen as a transitional reform moving towards their 'prototype' health care system which is based on competing insurance funds.
- The BMA (1994) claim a range of benefits for a health tax. These include transparency, independence from the usual public expenditure process and from political interference, sufficient revenue to provide universal coverage and to meet anticipated demand, and greater equity. Their paper lists a range of options for the form of the health tax and favours some form of indirect tax.
- The Liberal Democrats (1994) have made hypothecated taxes a central element of their report 'Being honest about taxation'. They suggest two possibilities for the NHS. Firstly a full 'NHS tax' funded from income tax or from a combination of income tax and excise duties on alcohol and tobacco, secondly a 'special projects' tax aimed at supplementing current funding from general taxation.
- To evaluate the proposed reforms the objectives of health care financing need to be explicit. Criteria for evaluating health care financing are discussed under four headings; efficiency, the benefit principle, the public choice perspective, and equity.
- Three dimensions of efficiency are relevant to the design of a tax-based system of health care finance. The tax should minimise distortions to economic activity, it should encourage the optimal level of spending on health care, and it should encourage an efficient allocation of resources within the health care sector.
- The benefit principle suggests that the costs of a public service should be borne by those that benefit from it. The message for tax-funding of the NHS is that the revenue base should be as broad as possible.
- From the public choice perspective hypothecation acts as a constraint on politicians which ensures that the provision of public goods reflects public preferences rather than political priorities. However for this to hold true there must be an effective democratic

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mechanism for the public to reveal their preferences for public spending. Public choice theorists also argue that hypothecation will tend to fail unless there are clear and enforceable property rights which ensure that the revenue is genuinely linked to spending on the NHS.

- Equity in the funding of health care is commonly associated with payment on the basis of ability to pay which, put simply, implies that a health tax should be progressive or proportional.
- A distinction should be made between earmarked funding (i.e. ring-fencing the health budget) and earmarked taxes. The latter are often associated with greater transparency and responsiveness but introduce problems of inequity, inflexibility and instability.
- Narrow tax bases are more likely to suffer from volatility and cyclicalities. Taxes which have an opaque economic incidence, such as employers' National Insurance Contributions, do not serve the aims of transparency and responsiveness.
- Earmarking reduces flexibility in managing the public budget and responding to changing economic circumstances and political priorities. Earmarking revenue specifically for NHS health care may constrain the resources available for broader policies aimed at social welfare, preventive health care and health promotion, becoming, in the words of the Commission on Social Justice, an 'illness tax'.
- The problems of creating a genuine linkage between earmarked revenue and expenditure raise the danger that earmarking may simply be a 'fiscal illusion'. Proponents of earmarking need to be clear about the political mechanisms that will translate public preferences into tax rates and on into health expenditure. We intend to develop an economic framework to explore this issue in a future report.
- A summary of policy objectives and their implications reveals contradictions in the proposed health taxes. These suggest that it would be hard to make a case for hypothecated funding of the NHS which is able to satisfy *all* the broad objectives of health care financing in the UK.
- Renewed interest in hypothecated taxes does focus attention on the appropriate level of funding for the NHS and whether the current system is equipped to cope with the continuing real growth in health care expenditure. Our future work will look at how responsive to public preferences on funding a hypothecated health tax could be. The emphasis on transparency and responsiveness may, however, also help to stimulate other innovative proposals to encourage greater public awareness and involvement in the difficult issues of priority setting and rationing of health care.

I INTRODUCTION

The idea of a hypothecated, or earmarked, NHS tax has returned to the policy agenda in the UK. A resolution favouring a hypothecated tax over general taxation was passed by the Annual Representative Meeting of the British Medical Association in July 1993, and has been followed up by a briefing paper from their Health Policy and Economic Research Unit (BMA, 1994). The Liberal Democrats have made hypothecation a feature of their proposed tax policy, with a central role for full or partial funding of the NHS from earmarked taxes (Liberal Democrats, 1994). The implications of the BMA and Liberal Democrat proposals have been explored in a discussion paper published by the Independent Healthcare Association (Davies and Chandler, 1994).

An earmarked health tax has been considered as an option by the Labour Party (Labour Party, 1994)¹, and has been discussed, but rejected, by the Commission on Social Justice (The Commission on Social Justice, 1994).

Hypothecated taxes have found some favour with the political Right, and have been advocated as a means of reducing taxation, and curtailing both public expenditure and the role of the state in the financing of health care (Bracewell-Milnes, 1991).

Finally, earmarked health care insurance premiums play a role in the proposed reforms of the UK system put forward in a consultancy report by National Economic Research Associates (NERA, 1993).

Most advocates of hypothecated health taxes argue that their transparency will increase the overall level of revenue available for the NHS, increase the autonomy of NHS funding from political interference, and encourage equity in health care finance. In this report we attempt to provide a systematic review of the economic arguments, practical experience, and empirical evidence underlying these claims.

¹ The Labour Party consultation document 'Health 2000' gives a brief mention to the idea of a separate health tax but concludes that 'whilst at this stage we do not rule out this idea, it is our view that linking health prevention with the role of the NHS in treating illness and providing care necessitates an integrated approach and a broad revenue base in contrast to a separate insurance'.

Scope and objectives

The aim of this report is to evaluate proposals for replacing some or all of the current system of NHS funding by a hypothecated health tax (a 'NHS tax'). In evaluating the proposed reforms, our benchmark for all the comparisons is the current system of finance by general taxation from the consolidated fund.

In general we are only concerned with funding of the NHS, not the health sector as a whole. We pay only cursory attention to the issue of the public-private mix in health care, and to the balance between the NHS and other areas of public funding such as Social Services.

Similarly the report is primarily concerned with alternative methods of tax finance (i.e. general versus earmarked taxes). Only passing reference will be made to alternative sources of funding such as genuine social insurance schemes, private insurance, and user charges and direct payments.

Our concern is with the use of taxes to fund the NHS as it currently exists. In general we take the organisation and scope of the NHS as given and do not address reforms in the provision of health care and the operation of the internal market. Needless to say, these issues are sometimes unavoidable. For instance much of the debate over NHS finances revolves around claims of under-funding and raises the question of the appropriate level for the NHS budget. In turn we must ask whether hypothecation can create a real linkage between tax payments and expenditure, and whether the public popularity of the NHS would lead to an increase in the real resources devoted to the NHS. The question of organisational structure arises with proposals for a separate and autonomous NHS fund and this requires some discussion of management issues.

In general we assume that, in any reformed system of finance, cash limits on NHS expenditure will be maintained. Where appropriate we highlight the cases where proposals for hypothecated funding seem to suggest a move away from cash limits to a more demand-driven system of finance and their implications for cost containment in the health care sector.

Section 2 provides some factual background on current levels of health care funding in the UK and

INTRODUCTION

overseas, along with evidence on current sources of tax revenue in the UK and on public opinion towards the funding of health care. It goes on to discuss specific proposals for hypothecated health taxes from the IEA, NERA, the BMA, and the Liberal Democrats and uses these to raise general issues about the merits and drawbacks of earmarking. Section 3 provides a systematic discussion of the objectives of health care financing and explores the implications for hypothecated taxes. It concludes with a summary of the relative merits of general taxation and of various forms of earmarking.

2 RECENT PROPOSALS FOR A HEALTH TAX

2.1 The debate

Hypothecated taxes tend to be vigorously resisted by the Treasury and find little favour among economists and in the theory of public finance.² So why is the issue of an earmarked health tax back on the agenda? The prime reason seems to lie in the continued debate over the perceived under-funding of the health service, a debate that is partly driven by experience of shortages and cash crises in the NHS and partly by international comparisons of health expenditure. This debate re-surfaced most visibly in the crisis of 1987 which led to exceptional funds being provided for the NHS and was the immediate precursor of the White Paper reforms. However the NHS reforms did not address directly the issue of funding (e.g. unlike the Dekker-Simons proposals in Netherlands, which draw on the ideas of Alain Enthoven and others who advocate managed competition in the financing as well as provision of health care). Concerns over under-funding have not gone away with the introduction of the internal market, and hypothecated taxes are seen as one way of increasing the share of GDP that is devoted to health care (e.g. BMA, 1994).

For the Liberal Democrats the supposed transparency and responsiveness of hypothecated taxes fits in with a more general emphasis on decentralisation of decision making, public participation and openness in government. Their proposals on hypothecated taxes are accompanied by plans for annual statements of taxes and spending, and for the use of referenda, and the introduction of public forums and local initiatives.

On the political Right a further attraction of hypothecated funding and the use of a separate health fund is that it has the potential to encourage decentralisation or privatisation of public spending and to reduce the scope of the public sector.

It is implicit in most of the proposals discussed here that earmarked funding will increase the NHS budget. While it is certainly true that public opinion polls often suggest a general willingness to pay more for the NHS, we will argue that this is a difficult claim to evaluate. In doing so we need to

consider the sceptical view that, in practice, earmarking makes the payment of taxes more palatable but may not generate a corresponding increase in spending on the NHS (fiscal illusion). We will also argue that hypothecated taxes in themselves cannot give the transparency, and more importantly the responsiveness to public preferences that is claimed for them and that advocates of a health tax need to give more thought to the mechanism for earmarking spending (as opposed to tax revenues) and for assessing the appropriate level of funding for the NHS.

2.2 Relevant statistics

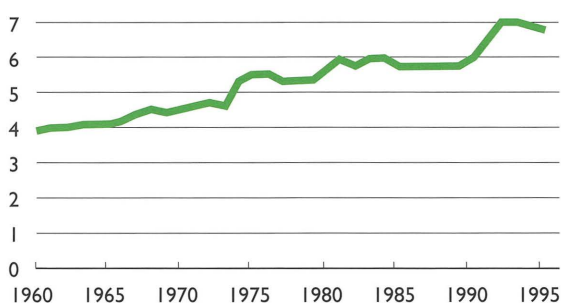
To put the proposals for earmarked funding of the NHS in context it is useful to give a brief summary of some relevant statistics. These include:

- the trend in health care expenditure in the UK,
- trends in existing sources of tax revenue along with evidence on the progressivity of different types of tax,
- evidence on public attitudes towards the NHS and willingness to pay for increased funding,
- the break-down of current sources of NHS finance.

Health care expenditure

Figure 1 shows the upward trend in overall UK health care expenditure expressed as a proportion of GDP for the period 1960-1994.

Figure 1 HCE as percentage of GDP, 1960-94



Source: OHE Compendium of Health Statistics, 9th Edition, Table 2.1, 1995.
(Figures for 1993 and 1994 are estimates)

2 See Wilkinson (1994) for a recent review.

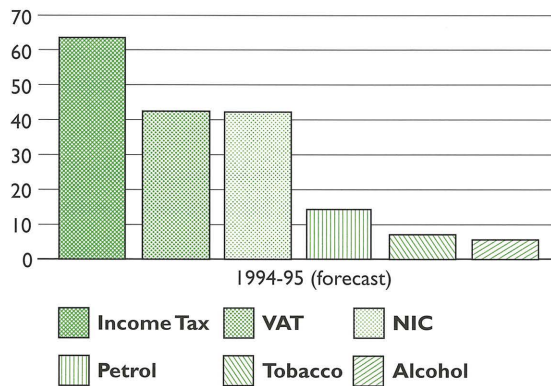
RECENT PROPOSALS FOR A HEALTH TAX

Figure 1 implies a widening gap between the growth of real health care expenditure and real GDP. To maintain this trend a hypothecated health tax would ideally need a revenue base whose real growth matches that of health spending rather than national income.

Levels and sources of tax revenues

Many of the proposals for hypothecated health taxes suggest a linkage between the funding of the NHS and a specific tax base. To explore the implications of these proposals it is useful to examine the existing sources of tax revenue in the UK. Figure 2 shows the main sources of tax revenue in the UK.

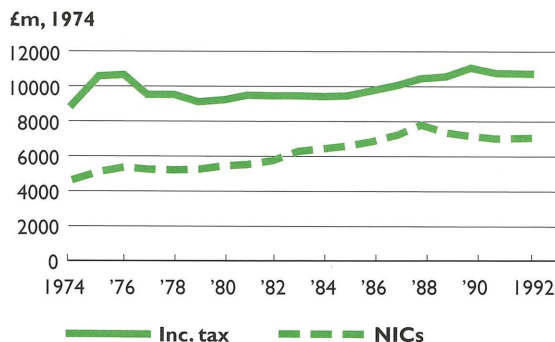
Figure 2 Selected sources of tax revenue, Treasury forecasts, 1994-95 (£bn)



Source: Financial Statement and Budget Report, 1994-95.

Figure 3 shows the real revenue from income tax and National Insurance Contributions. Notice the down-turn in both series over recent years.

Figure 3 Revenue from income tax and NICs



Source: National Accounts, Table 7.2, 1982, 1993.

Figure 4 shows the dramatic growth in the real value of revenue from VAT over the past two decades. This reflects the policy shift from direct to indirect taxation implemented through changes in both the rates and coverage of VAT.

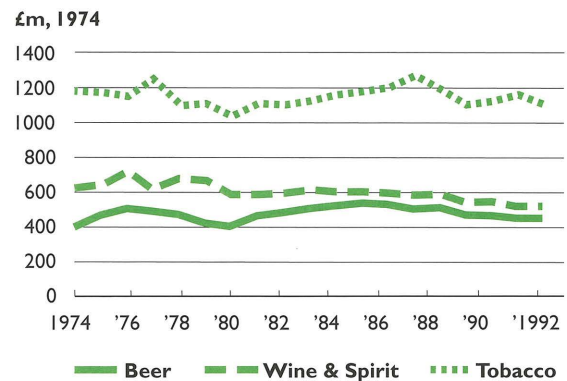
Figure 4 Revenue from VAT



Source: National Accounts, Table 7.2, 1982, 1993.

Figure 5 shows the revenue from alcohol and tobacco taxes. This shows that the real revenue from these sources is in steady decline, and as such would have limited appeal for earmarking to fund the growing NHS budget.

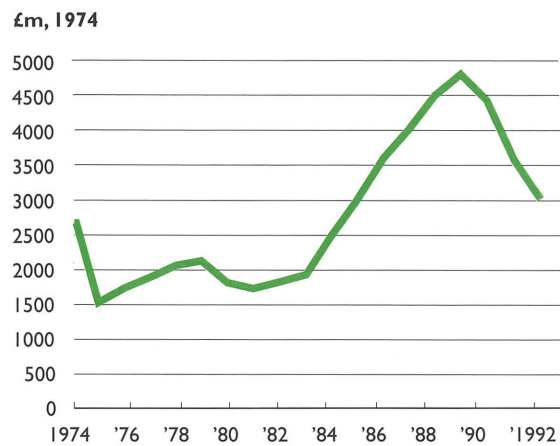
Figure 5 Revenue from excise duties



Source: National Accounts, Table 7.2, 1982, 1993.

Figure 6 shows the real revenue from corporation tax. This is clearly a highly volatile tax base and as such would not be suitable as a stable source of earmarked funds.

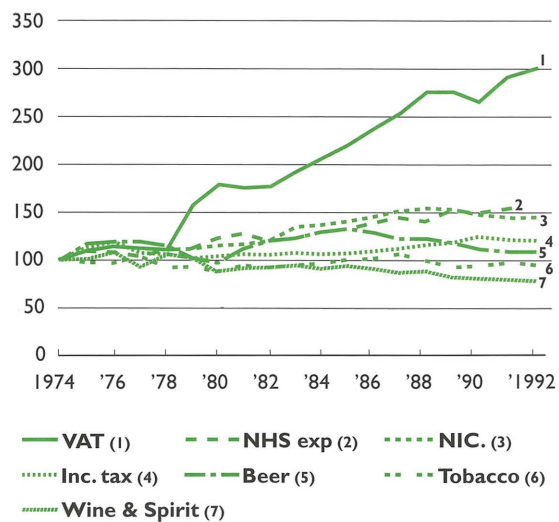
Figure 6 Revenue from corporation tax



Source: Inland Revenue Statistics, Table 1.2, 1993.

Figure 7 shows the trends in real tax yields displayed alongside total real expenditure on the NHS. All of the series are expressed as indices with 1974=100. The figure shows that VAT is the only tax yield to have consistently outstripped the real growth in NHS spending.

Figure 7 Examples of real tax revenues and expenditure on the NHS



Source: see previous figures.

Public opinion

The case that a hypothecated health tax will increase the funds available for the NHS is based primarily on evidence of 'public opinion' on health

spending (e.g. BMA, 1994). The main source of data is the British Social Attitudes Survey and Table 1 shows some time series for attitudes towards the funding of health care.

Table 1 Attitudes towards health spending in Britain

	Reduce tax & spend less	Same level of spending	Increase tax & spend more	First priority	First or second priority
1983	9	54	32	37	63
1984	6	50	39	37	63
1985	6	43	45	—	—
1986	5	44	46	37	—
1987	3	42	50	52	79
1988	—	—	—	—	—
1989	3	37	56	61	84
1990	3	37	54	56	—
1991	3	29	65	48	—

Source: BSA reports, various years.

The first three columns of the table show the percentage of responses to the question 'suppose the government had to choose between the three options [on this card], which do you think it should choose'. The question relates to health, education and social benefits as a whole but it should give a reasonable indication of sentiments towards funding of the NHS and willingness to pay an NHS tax. This is reinforced by the data in columns four and five which gives the percentage of respondents who put health care as the first or first or second priority for additional government spending.

These data do suggest widespread public popularity of greater tax-financed spending on health. However, like the narrow tax bases, these figures exhibit considerable volatility over the years and any health tax proposal where rates take into account public opinion (e.g. Liberal Democrats, 1994) may be prone to the same volatility and unpredictability.

International comparisons of health care expenditures are often at the root of claims that the NHS is under-funded and it is interesting to see how attitudes towards health care funding vary across countries. Table 2 shows data for ten

countries in 1991. The first column gives the percentage of respondents who agree that 'it is definitely the government's responsibility to provide health care for the sick' while the second gives the percentage who believe that there should be 'much more state spending on health'. For comparison the Table also includes data on the actual levels of health care expenditure as a percentage of GDP and the proportion of publicly funded health care.

Table 2 International attitudes towards health care

	Govern- ment's responsi- bility	Much more state spending on health	HCE/ GDP (per cent) (1992)	Percent- age of public funding in total HCE (1992)
Australia	—	16	8.5	68
W. Germany	57	36	8.7	72
E. Germany	82	—	—	—
Great Britain	85	36	7.1	84
Hungary	75	59	—	—
Ireland	83	—	7.1	79
Italy	88	39	9.0	72
N. Ireland	83	42	—	—
Norway	84	25	8.0	96
USA	40	20	13.8	46

Source: International Social Attitudes, the 10th BSA report, 1993.

OHE Compendium of Health Statistics, 9th Edition, Tables 2.3 & 2.5, 1995.

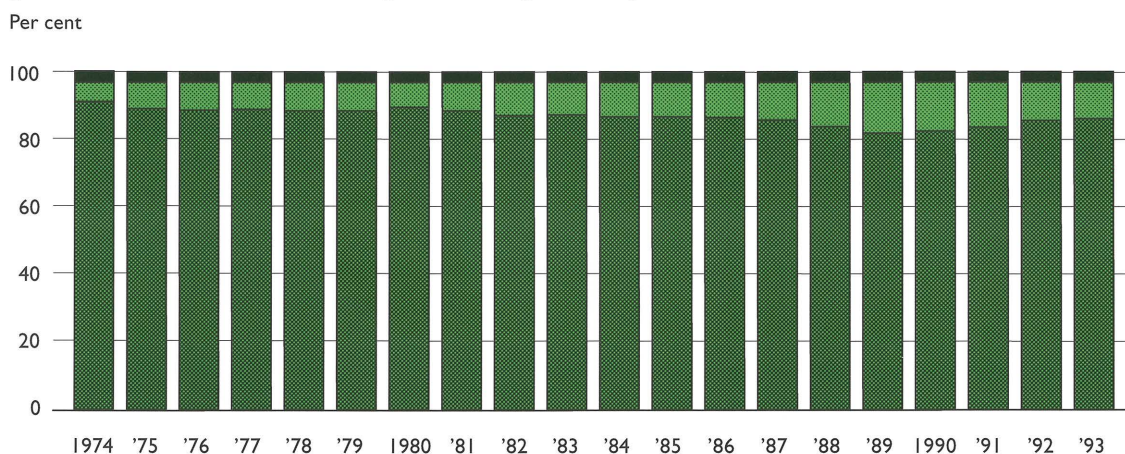
Some further evidence on public opinion is provided by Anthony King (*Daily Telegraph*, 17/8/94) who reports a 1991 Gallup poll of voters. The findings show that 77 per cent said they would be willing to pay a penny more in income tax if they were 'sure that the extra money would be spent on the health service'. In addition 62 per cent said they would pay more and named the amount, with 31 per cent saying £1 per week or less and 31 per cent saying £2 per week or more. Professor King states that this would imply an additional £2.5bn in spending on the NHS.

The existing system of NHS finance

The funding of the NHS comes predominantly from general taxation. Figure 8 shows the relative proportions of sources of NHS finance from general taxation (lower bar), the NHS contribution (middle) and patient payments (top) over the years 1974-93. Despite some minor recent expansion of the direct charges, along with revenue from land sales and charitable contributions, around 96 per cent of NHS funds come from taxation.

The health component of NICs should be seen as a form of general tax funding. The benefits of the NHS are not conditional on payment of contributions and 'cannot therefore be regarded, even in part, as a system of social insurance' (Ensor, 1993).

Figure 8 Sources of NHS funding, 1974-93 (per cent)



Source: OHE Compendium of Health Statistics, 9th Edition, Table 2.18, 1995.

Table 3 Central government expenditure on health (£m)

	1992-93 out-turn	1993-94 estimated	1994-95 plans	1995-96 plans	1996-97 plans
NHS hospitals community health, family health (cash limited) and related services	26,468	27,996	28,268	29,330	30,056
Family health (non-cash limited)	6,683	6,619	7,822	8,249	8,667
NHS Trusts	222	323	563	608	590
Central health and other services	1,281	1,180	1,177	1,221	1,277
Total health	34,653	36,118	37,830	39,408	40,590
Personal social services	236	303	394	458	458
Total health and personal social services	34,889	36,421	38,223	39,866	41,048

Source: Public Expenditure. Statistical Supplement to the Financial Statement and Budget Report 1994-95, Cm 2519, HMSO.

Since 1976 a system of cash limits has operated for the Hospital and Community Health Services (HCHS) component of the health budget, and since 1982 actual cash limits for a three year planning period are published (Ensor, 1993). The planned expenditure for the three years 1994-95 to 1996-97 are shown in Table 3.

The estimated out-turn for expenditure on health and personal social services in 1993-94 of £36,421m translates into approximately £630 per head of population or £1,500 per income tax-payer. This sum is equal to 66 per cent of income tax revenue in 1993-94 (equivalent, say, to 16 pence in the pound of the basic rate of income tax) or 94 per cent of the revenue from VAT.

2.3 Specific proposals for the UK

2.3.1 Bracewell-Milnes (1991)

In 1991 the Institute for Economic Affairs (IEA) published a report 'The case for earmarked taxes'. The report contains two parts: the first by Ranjit Teja gives an American perspective and the second by Barry Bracewell-Milnes looks at earmarking in Britain. Bracewell-Milnes (1991) is concerned with earmarking in general but he does discuss some specific proposals for health care financing in the UK.

Income tax

One option discussed by Bracewell-Milnes is labelling a component of income tax revenue for the NHS. This is not developed in detail but it is clear that its primary purpose would be to increase public awareness of how much they are contributing towards the NHS. As such it is open to mis-interpretation unless income tax revenue really is earmarked as the sole source of revenue for the NHS. Also it is not clear why health spending should be singled-out, or why the same approach should not be applied to all the main spending departments. Bracewell-Milnes does not explain how the rate of tax would be set and whether revenue would still be allocated through the consolidated fund or through a separate health fund. But he does argue that an advantage of this proposal is that it ties expenditure to income (a 'good-housekeeping' argument). This issue is discussed more thoroughly below and as we will see it may lead to perverse effects, tying health spending to the health of the economy when the demands on the NHS tend to be counter-cyclical.

National Insurance

The use of earmarking to increase public awareness of the level of health spending is also evident in the second proposal discussed by Bracewell-Milnes. This originates in a proposal by Sir Leon Brittain through the Conservative Political Centre in 1988 and involves earmarking the revenue from the existing NICs for the NHS (with pensions and social security funded from general taxes). This is recognised as a 'formal rather than substantive' change which aims to 'bring home the cost of the

NHS to a much larger number of people'. Again it is not clear why the NHS in particular should be singled out for this treatment, but the proposal may reflect the fall-out from the 1987 funding crisis.

Tax concessions for private insurance

Bracewell-Milnes's own preferred option is to extend the income tax relief on private health insurance. The advantages claimed for this policy are that take-up will be voluntary and that the effect will be to reduce taxation and government spending. The implication is that the loss of revenue will be offset by a reduction in public spending on the NHS. Because of doubts about the responsiveness of basic rate taxpayers to this tax concession he suggests that basic rate taxpayers may need to be given higher rate tax relief. This would reduce the redistributive element of health care funding. Also it would complicate the tax system and would no doubt spawn a boom in tax avoidance schemes presented as health insurance. As this proposal is not aimed at reforming the funding of the NHS and is in fact seen as a substitute to encourage the development of private insurance and health care it is outside the scope of this study and the policy will not be evaluated in detail.

Finally Bracewell-Milnes mentions a voucher system as the 'next best option' to tax relief. This policy is advocated as a means of increasing consumer choice in health care. But vouchers *per se* do not address the funding issue and are concerned with the purchasing and delivery of health care and the proposal will not be pursued here.

2.3.2 NERA (1993)

In 1993 National Economic Research Associates produced a series of reports which have now been published in two volumes, 'Financing health care' (Hoffmeyer and McCarthy, 1994). The reports were commissioned by a group of major pharmaceutical companies. They compare the health care systems of eleven developed countries and propose a model or 'prototype' health care system. NERA also discuss the short-term and long-term reforms that would be required to achieve the prototype in each country. The NERA prototype suggests a health care system in which:

- There is universal and mandatory comprehensive coverage for a 'Guaranteed Health Care Package' (GHCP)
- Individuals choose an insurance fund for the GHCP. These funds compete and must accept all comers.
- There are two main sources of funding:
 1. Income related premia are paid into a central fund and then allocated to insurance funds as a fixed, risk-adjusted capitation payment.³
 2. There are mandatory copayments on all services within the GHCP.
- The insurance funds reimburse providers through negotiated contracts or market-determined list prices.

The NERA study recognises that a move to the prototype would imply dramatic changes to the UK system and that these would 'principally involve the funding aspects of the system, which at present lacks choice and transparency'.

A full discussion of these wide-ranging reforms, which revolve around the introduction of competing insurance funds, is beyond the scope of this report which is confined to the tax funding of the NHS. We can note however that in the UK the NERA proposals have received a critical response (see Culyer, 1995, Klein, 1993). These critics have emphasised the report's failure to take proper account of the efficiency and, more importantly, equity objectives of the UK system in the design of an alternative, and a lack of regard for the evidence on the effectiveness of either competition or copayments in achieving cost containment, whilst satisfying equity and efficiency objectives.

The report argues that the health care system in the UK is under-funded. This conclusion is based primarily on international comparisons of OECD data, along with statistical projections of health care need and funding. The projections of need are driven by demographic and technological change. But Culyer (1995) argues that it is important to be

³ The report also discusses the possibility of individuals paying a risk-related premium. This premium could vary across funds and would cover disease that society decides the income related premia should not cover.

aware that these needs are endogenous. The growing demands for services for the elderly reflect resource allocation decisions, and R&D and technological innovation in the health sector responds to the incentives created by the system and he argues that as a result cost-increasing innovations tend to dominate.

Health care insurance funds

In the short-term, NERA propose a shift from general taxation to a 'separate structure of health care insurance premiums, sufficient to cover the costs of the NHS'. The aim would be to 'increase the transparency of NHS funding and facilitate later reforms'.

In the long-term, insurance funds offering the mandatory GHCP would charge their members a premium that consists of two components; an income related component and a risk-related component. The balance between these will be based on a 'political decision taken by society'.

The report argues that this aspect of the plan could get underway by identifying the level of contributions required to fund the NHS. The implication is that these contributions would be modelled on the current system of NICs;

'...the 'health insurance' premium would be larger than the element at present included in National Insurance Contributions, with a corresponding reduction in other taxation. These income related contributions would continue to be collected by the government, both initially and as the system develops subsequently.'

(NERA, 1993)

2.3.3 The BMA (1994)

As a result of a motion favouring a hypothecated health tax being passed at the BMA's Annual Representative Meeting in July 1993, their Health Policy and Economic Research Unit produced a Discussion Document to consider the issue (BMA, 1994). The motion argued that a hypothecated tax would be a more appropriate source of funding for the NHS because it would;

- 'i) encourage a public debate about investment in NHS;*
- ii) increase the likelihood of greater funding of NHS'.*

The report adopts a rather circular approach to the definition of hypothecated funding;

'we can define a hypothecated health tax according to the advantages claimed for it'

(BMA, 1994)

It is worth considering each of these 'advantages' in turn and exploring the questions they raise:

'Be clearly identifiable'

Transparency is seen as one of the prime attractions of hypothecated funding. Advocates argue that an identifiable source of revenue will raise the public's awareness of their financial contribution to the NHS. To assess the transparency of a hypothecated tax it is important to know about the design of the tax and how it is collected, for instance income tax and employee's NICs are very transparent as payments appear on employees' pay-slips, whereas consumption taxes such as VAT and excise duties are less transparent and taxes such as employers' NICs and corporation tax, which may be borne by the public, are far from transparent.

But transparency goes beyond just knowing how much is paid out in tax. A more basic question is whether the tax has an identifiable outcome in terms of health spending. An issue here is whether the linkage between the tax revenue and the spending for which it is earmarked is real or whether it is open to manipulation and disguise. Other questions that need to be answered are what additional information does a hypothecated source of funds provide relative to the existing system of public expenditure plans, and how can the public act on the information?

Being better informed about how much is being spent is unlikely to be of benefit, in itself, unless it is accompanied by other relevant information.

What does current NHS funding purchase in terms of health care? What will changes in the amount of revenue purchase in terms of health care? What is the effectiveness of both in terms of health outcomes?

Most fundamentally, transparency in itself is irrelevant if there is no mechanism for public preferences to be translated into tax rates. The use of earmarked taxes and user-charges is often based on the analogy of the price mechanism in competitive markets. In competitive markets consumers can respond to prices by deciding whether to purchase and how much to purchase and in so doing they reveal their willingness to pay

for the good in question. But taxpayers pay at the rate set by Parliament with little control over whether or not they pay the tax. For a given rate of tax, individuals can affect their personal liability by for example smoking or drinking more, or by working longer hours, but more often than not this will create perverse incentives for a 'health' tax. When it comes to setting the appropriate rate of tax the political process must be considered. One aspect of the political process is that the rate of health tax would provide a clear target for political lobbying for groups with a vested interest in the health sector, a possibility identified by contributions from a public choice perspective (Wagner, 1991).

'Be raised independently of public expenditure process'

It is not clear how this would work in practice but it suggests a break-down of the traditional separation of collection and expenditure of revenue and a corresponding reduction in Treasury control. Reduced Treasury control over public spending raises the arguments over the constraints on budgetary flexibility created by earmarking funds. Creating inflexibility restricts the Treasury's ability to respond to changing demands on their macroeconomic policy and changing public priorities across spending departments. If an autonomous health fund is created the question then arises whether it will be vulnerable to raids on any surplus that accrues and whether deficits will be subsidised from general taxation.⁴

⁴ Bracewell-Milnes (1991) describes the history of the Road Fund which was established in the 1920s as a hypothecated fund. The Fund suffered repeated raids between 1929 and 1936 and hypothecation was ended in 1937. 'Thereafter the Road Fund had no income of its own and merely became an agency administering the grant in aid.' McChesney (1991) describes more recent 'raids' on surpluses in US Social Security Funds and argues that the problem stems from a lack of enforceable property rights in the funds that leaves them open to political expropriation.

'Raise sufficient money (by implication more than at present) to provide universal coverage and to meet anticipated demand'

A hypothecated tax in itself does not determine the optimal level of provision and expenditure. Expenditure will depend on the design of the system, in terms of the health fund and any subsequent changes in NHS management and the provision of health care and their impact on costs. As it stands, this point seems to imply an open-ended demand-led system and abandonment of cash limits. Ludbrook and Maynard (1988) point to the problems of persistent deficits faced by European social insurance schemes. They argue that this is largely due to the open-ended provision with no cash limits in which 'cost containment problems are significant and ubiquitous'. But they also argue that the problems are exacerbated by the impact of cyclical patterns in unemployment along with periods of (statutory or voluntary) wage restraint.

'Be equitable'

To assess whether a new system of financing is more or less equitable than the *status quo* requires a definition of equity in health care finance. But equity is a notoriously difficult concept to define. Van Doorslaer et.al. (1993) review concepts of equity that are embodied in health care systems across the OECD. A crude paraphrasing of their findings suggests that the relevant concept of vertical equity in the UK and many other OECD nations is that contributions to health care finance should be based on ability to pay, and that the delivery of health care should be based on need, irrespective of an individual's ability to pay.

Once an acceptable definition of equity has been established the issue is whether the proposed tax is more or less equitable than current system in which the bulk of the revenue is spread over the diverse components of the consolidated fund. Taking ability to pay as the criterion, the alternatives considered in the BMA report would be less equitable. Most have narrow tax bases and many are known to be regressive.

Be free of political control

To have substance this issue would have to go beyond hypothecation *per se* and extend to the

responsibility for determining the tax base and rates of tax ie. would a proposed reform imply an autonomous right to set and raise taxes and to spend the revenue? In general freeing £37bn of public spending from all political control is unlikely to be acceptable or desirable. The spending of public funds needs to be accountable and subject to monitoring and auditing to prevent inefficiency and fraud.

Political autonomy implies more than just a health tax and suggests a re-design of the management and control of NHS funding and the establishment of a separate agency to control the NHS fund. This kind of development could be seen as an extension of the separation of strategic planning and service management embodied in the split between day to day operation of the NHS by the NHS Executive and strategic planning by the Department of Health Policy Board (Ensor, 1993). This suggests the sort of model in which an agency would be responsible for the collection and management of an NHS fund with the Department of Health as a regulator (e.g. along the lines of water charges and Ofwat). The BMA report does not go this far. It suggests that a target budget should be set by the DoH and NHS Executive on the basis of projections from providers (not purchasers), and that the implied rates of tax should go to the Cabinet and Chancellor via the Secretary of State for Health. It is not clear how this mechanism of provider-driven budgets fits in with the report's other suggestion of using market research to assess public support for NHS funding.

The BMA report discusses three broad possibilities for the form of a health tax:

1) Flat rate or graduated tax

Flat rate taxes are simple to design and administer. But the experience of the poll tax shows that they are highly regressive and politically unpopular. The report discusses the use of banding to make the tax progressive and includes the earmarking of income tax under this heading.

2) Social insurance

Social insurance implies that benefits are dependent on (compulsory) contributions with subsidies for disadvantaged groups. This is not the case with NICs which the authors probably have in

mind here. The report recognises that a disadvantage of using payroll taxes is that they lead to instability and cyclicity in the tax base due to fluctuations in employment and earnings. This is exacerbated by the observation that health needs tend to grow during a recession when tax revenue decreases.

3) A consumption tax

The report points to the near coincidence between VAT revenue and the size of the NHS budget, and a general consumption tax is put forward as one way of increasing real spending on the NHS. The report recognises that this type of tax would be regressive (as shown by the current controversy over VAT on domestic fuel), and that it will add to price inflation. In response it suggests a form of banding so that lower rates are levied on goods that are typically consumed by lower-income groups. An alternative form of consumption tax is to tax 'goods and services associated with poor health outcomes e.g. alcohol and tobacco'. However the use of so-called 'sin taxes' has various pitfalls. Taxes on alcohol and tobacco are likely to be regressive. The tax base is narrow and hence prone to volatility, and in the case of tobacco the real value of the tax base is in decline. Tobacco taxes are also open to criticism in terms of the benefit principle of taxation as a minority of taxpayers would be used to fund a service that is open to all. Finally sin taxes tie the funding of health care to unhealthy activities (creating the perverse incentive that smokers who want more spent on the NHS should smoke more). Of course none of the preceding arguments rule out the use of alcohol and tobacco taxes to pursue public health objectives.

2.3.4 Liberal Democrats (1994)

With the preliminary report 'Being honest about taxation' published in June 1994 by their policy unit the Liberal Democrats have made hypothecated taxes a central plank of their fiscal policy. Foremost among their proposals is the funding of the NHS. The Liberal Democrat proposals for the NHS fall into two groups. The first are concerned with wholesale funding of the current budget, the second are restricted to increase in the real level of funding of the NHS. The implication is that the latter are more viable as practical measures.

A NHS tax

The aim would be to fully fund the NHS by earmarked taxes. Two sources of funds are discussed. The first idea is to apportion a rate of income tax to cover current spending on the NHS. 'From then on, a set percentage of income tax – say 50 per cent – could be apportioned to the NHS tax as a minimum level of investment.' Alternatively the NHS tax could earmark revenue from excise duties on alcohol and tobacco, along with a smaller slice of income tax.

A special projects tax

The policy document recognises the disadvantages of a full NHS tax, in terms of misallocation of resources and reduced flexibility, and it suggests an alternative way of increasing transparency. This involves a commitment to fund current NHS expenditure (in real terms) out of general taxes along with a supplementary tax to pay for real increases in NHS spending. This supplementary fund would be aimed at 'special projects' and use the same tax instruments as the possible NHS tax. The document also discusses the possibility of creating an 'NHS fund' from revenue raised by the earmarked tax for extra funding.

This kind of 'partial' earmarking, in which only a portion of the revenue is earmarked, raises the question of the linkage between the tax revenue and the spending for which it is supposed to be earmarked. What kind of mechanism will be used to prevent any extra revenue that is generated by the earmarked tax being off-set by compensating reductions in general fund finance? The Liberal Democrats proposal suggests that the core NHS funding will be maintained at its current level in real terms, but this form of incrementalism has the drawback of building inertia into the system. This kind of approach gets short shrift in the Institute for Fiscal Studies (IFS) Green Budget (1994);

'Hypothecated taxes could only constrain government where they are allocated to genuinely marginal projects and where the level and allocation of government spending apart from the marginal project is entirely and irrevocably set in current and future years. Since such a set of criteria cannot be met, we must accept that any further hypothecated taxes would principally be an exercise in deceiving voters that their tax payments controlled government spending in a way which they simply will not.'

Box A Proposals for reform

Bracewell-Milnes (1991)

- Extend income tax relief on private health insurance
 - a) at taxpayer's marginal rate
 - b) at higher rate (40 per cent)
- Re-labelling of NICs
- Label a component of income tax revenue

NERA (1993)

- Shift from general taxation to an income-related health insurance premium.
- In the short term these premiums will be modelled on the current system of NICs, although they would be larger, with a corresponding reduction in other taxation.

BMA (1994)

- Flat rate or graduated tax (may include earmarked income tax).
- Social insurance.
- Consumption tax
 - a) Earmark VAT revenue using the existing tax base, with the possibility of introducing banding.
 - b) Sin taxes – tax levied at a higher rate on alcohol and tobacco.

Liberal Democrats Policy Unit (1994)

- Apportion a rate of income tax to cover spending on NHS.
- Earmark tax revenue from excise duties on alcohol and tobacco, along with a smaller slice of income tax.
- Commitment to fund current NHS expenditure (in real terms) out of general taxes. Supplementary tax to pay for real increases in NHS spending. Aimed at special projects. Same instruments as possible NHS tax.
- Creating an NHS fund from revenue raised from earmarked tax for extra funding.

The idea of earmarking revenue for marginal projects is developed further by Davies and Chandler (1994) in their discussion paper for the Independent Healthcare Association. They argue that hypothecation, combined with referenda and public consultation could be used to increase public involvement in decisions about the rationing of health care. In particular they argue that, along the lines of the Oregon experiment, a health tax could be used to encourage debate about the range of services that should be offered by the NHS. For example whether some services, such as fertility treatment, should be made available as NHS care and some services, such as sports physiotherapy, should be deleted.

2.3.5 Summary

In this section we have discussed specific proposals for reform from Bracewell-Milnes, NERA, the BMA, and the Liberal Democrats. Box A summarises the reforms proposed.

3 HOW SHOULD THE PROPOSALS BE EVALUATED?

3.1 The objectives of health care and fiscal policy

To evaluate any set of policy reforms it is essential to be clear about the objectives they are intended to achieve. So in this case the objectives of NHS financing need to be explicit.

In the UK (and elsewhere) it is widely accepted that different criteria can be used to design systems for the finance and for the delivery of health care. For example finance may be founded primarily on the equity criterion of ability to pay, while the provision of health care may be allocated according to need (defined as capacity to benefit) using medical criteria that are independent of other characteristics such as ability to pay. The use of tax finance implies a separation of funding from provision.

Criteria for evaluating a system of health care funding are now discussed under four headings; efficiency, the benefit principle, the public choice perspective, and equity.

3.1.1 Efficiency

Three different aspects of efficiency seem to be relevant to an evaluation of a hypothecated health tax⁵:

1) What is the impact of a new tax on economic behaviour and to what extent does the tax distort economic behaviour and hence the allocation of resources? For example if the health tax is to be built around NICs, what will be the impact on employers' and employees' behaviour and hence on levels of employment, wages and prices? Given a set of policy objectives the aim should be to design a tax that minimises the distortions.

2) To what extent does the method of financing e.g. general fund versus earmarked tax influence the achievement of an optimal level of funding for health care? And does the method of funding have

a role to play in determining what level of spending should be devoted to health care?⁶

3) To what extent does the method of funding influence the efficient allocation of resources within the health care sector, i.e. in the provision of health care? As a general issue it is clear that the method of health care financing can influence efficiency in the provision of care e.g. a move from a retrospective reimbursement system such as fee for* service to a prospective system such as preferred providers and capitation payment or global budgets may affect cost containment. Here, we are concerned with the implications of a move from general taxation to earmarked taxes, and the issue seems to come down to two things; whether the new system implies a move to an open-ended demand-led system and, whether it implies a change in management structures (and the autonomy of NHS management).

3.1.2 The benefit principle

The benefit principle suggests that the costs of a public service should be borne by those who use it. Exceptions to the rule occur when taxation is used for re-distribution and when there are practical limits on the identification of benefits and beneficiaries. Teja (1991) shows how the benefit principle is crucial in much of the economic discussion of funding of public goods by hypothecated taxes,

'The normative case for earmarked taxes rests fundamentally on the assumption that groups and individuals in society have different preferences. Earmarking provides voters an opportunity to reveal their preferences for public goods with their tax dollars.'

5 Definitions of efficiency need to be clear about the appropriate objective function (maximand). For points 1) and 2) efficiency would be defined in terms of some notion of 'social welfare', for point 3) which relates to allocative efficiency within the health service it might be restricted to something like 'health gain' (see e.g. Culyer, 1989).

6 Johansen (1963) presents a simple model in which two public goods are funded from general taxation and shows that maximisation of social welfare is over-determined, i.e. there is one variable/policy instrument too few, in this case a missing tax rate. With earmarked taxes the solution is determinate which implies Pareto efficiency, But to implement this solution requires a fully informed benevolent planner who knows public preferences and sets tax rates accordingly. What is the mechanism if the planner is not fully informed about the strength of preferences for different public goods?

Unfortunately it is not clear how voters' preferences are revealed when the rate of tax is set by government.⁷

The benefit principle is probably most relevant to an evaluation of hypothecated taxes in terms of whether the burden of the tax falls on the same groups of people who benefit from the earmarked expenditure. In other words an earmarked tax should be designed so that the tax base is related to usage of the public service. The Liberal Democrats (1994) recognise this point when they argue that 'there should be a fairly close connection between those who pay the tax and those who benefit from the expenditure'. For example, they state that 'petrol duties (which hit high mileage rural motorists) should not be earmarked to improve inner-city transport'. This is the main argument, from a public choice perspective, against the use of tobacco taxes to fund health care (Lee and Tollison, 1991).

The message of the benefit principle for the funding of the NHS is that benefits are universal and hence the tax base should be as broad as possible.

3.1.3 The public choice perspective

Public choice theory argues that the behaviour of politicians and public officials should be analysed using the same tools of self-interested rational choice theory that economists apply to private sector decision-making. In general the public choice perspective is more favourable to earmarking. Buchanan (1963) argues that general fund financing acts as a constraint which forces the public to select a specific bundle of public goods.

⁷ Public economics does consider the voluntary provision of public goods through the Lindahl solution to the pricing of public goods which can be interpreted as user charges or earmarked taxes. This relates to a situation where consumption is identical (in the nature of a pure public good), but each individual's contribution to the cost of the good reflects their marginal valuation or strength of preference (in line with the benefit principle). Under this scheme the level of provision of the public good will be based consensus and in this sense will be voluntary provision. In practice the Lindahl solution is seen as difficult if not impossible to implement due to the information required and the preference revelation problem (with heterogeneous individuals everyone ought to face an individual tax rate).

This view is epitomised by Lee and Tollison (1991, p.125),

'The earmarking of tax revenues, then, can serve as a quasi-constitutional constraint on the discretionary authority of politicians, which protects the general taxpayer against special interest influence and increases the congruence between the actual and the efficient pattern of services on public services.'

Earmarking is assumed to allow individuals to choose individual public goods rather than a fixed bundle. But as Ensor (1993, p.14) points out this argument will 'hold only if the earmarking really is made subject to voter preferences'.

While, on the basis of the benefit principle, the public choice perspective is generally sympathetic to earmarking, advocates do see the possibility that interest groups may try to exploit earmarked taxes to serve their own ends. Lee and Wagner (1991, p.122) argue that a system of earmarking needs 'constitutional rules to prevent fiscal discrimination'. This is justified by the benefit principle and, in the case when revenue and expenditure are not congruent, the need to ensure that a tax-paying minority are not exploited by a majority who benefit from the revenue.

The emphasis of public choice theory is on the influence of self interest in the political process and one implication for earmarked taxes is that they may be used to promote political success and the interests of lobby groups. Lee and Tollison (1991) argue that the problem of the influence of special interest groups on the budgetary process is not eliminated by earmarking, as earmarking creates a 'proprietary influence' in a particular source of tax revenue. For example they argue that the tobacco industry may be better off with sin taxes because the health sector then has a proprietary interest in the revenue and will want to set a rate of tax that maximises the revenue rather than a rate that will eliminate smoking.

3.1.4 Equity

Ability to pay is a widely accepted criterion for vertical equity in the financing of health care in the UK. An assessment of the equity implications of a move to earmarked taxation requires some knowledge of the progressivity of the tax (whether tax payments increase more than proportionately

with increases in income). The progressivity of the current system of NHS finance is primarily determined by the progressivity of the general tax system (O'Donnell, Propper and Upward, 1993). Table 4 shows the distribution of tax payments in 1985, along with the Gini, Kakwani and Suits indices of inequality and progressivity.

Table 4 The distribution of tax payments (per cent, 1985)

Income decile	Gross income	Income tax	National Insurance	Indirect tax	Total tax	Post-tax income
Bottom	2.23	0.03	0.83	2.60	1.19	2.72
2nd	3.20	0.35	1.13	3.74	1.83	3.85
3rd	4.29	0.84	2.02	5.45	2.88	4.94
4th	5.85	3.00	4.58	7.25	4.97	6.23
5th	7.58	5.60	7.76	8.69	7.22	7.72
6th	9.32	7.72	10.42	10.28	9.23	9.32
7th	11.19	10.72	12.91	11.29	11.35	11.10
8th	13.46	14.01	15.97	13.87	14.32	13.03
9th	16.67	19.76	19.12	15.51	17.96	16.08
Top	26.21	37.98	25.25	21.32	29.03	25.01
<i>Progressivity Indices:</i>						
Gini	0.380					0.349
Kakwani		0.195	0.069	-0.069	0.068	
Suits		0.213	0.051	-0.079	0.068	

Note: The Gini, Kakwani and Suits indices are computed using non-linear approximations. The Gini coefficient can take values between 0 and 1, larger values indicate greater inequality. Positive values of the Kakwani and Suits indices indicate a progressive tax, negative values indicate a regressive tax.

Source: O'Donnell, Propper, and Upward (1993, p.239)

As expected income tax is shown to be progressive, National Insurance is close to proportional, and indirect taxes are regressive. This indicates the likely distributional effects of choosing a particular type of tax base for earmarking.

3.2 Practical issues

The previous section has discussed the broad principles that influence the objectives of health care financing. In the context of hypothecated taxes, these can be translated into some specific practical issues that should be borne in mind when evaluating the proposed reforms:

3.2.1 Earmarking of what?

In the current debates over hypothecation there has been relatively little discussion of exactly what should be earmarked i.e. ring-fencing of part of the consolidated fund versus earmarking specific tax instruments. The conceptual distinction is between earmarked budgets and earmarked taxes. The former are defined only in terms of the end-use or the beneficiaries of the funds, the latter in terms of both the end-use and a specific tax instrument.

For example Teja (1991) argues that,

'The earmarking of taxes refers to the designation of funds either from a single tax base or from a wider pool of revenues to a particular end-use'.

So in Teja's view the important issue is what the revenue is used for, not the tax instrument that is used to raise it. This argument comes from a public choice perspective in which earmarking is seen as a constraint on the bureaucratic mis-appropriation of public funds, designed to ensure that the funds are used for their stated and earmarked purpose rather than being diverted into uses that reflect the objectives of politicians and burueacrats. To achieve this aim Teja sees the announcement and ring-fencing of funds as the requirement rather than the labelling of a particular revenue source.

Ensor (1993, p.13) argues that earmarked budgets will be attractive to the Department of Health in periods of recession when spending departments are under pressure due to declining tax revenues. But the attraction is likely to fade in periods of expansion when earmarking may cause inertia, so that spending does not expand in line with the general fund.

The arguments for moving from earmarked budgets to the earmarking of specific tax bases/instruments seem to come down to the claim that this will increase the transparency and responsiveness of funding. But many of the pitfalls of existing proposals for earmarked funding are due to the specific tax proposed in terms of inequity, inflexibility, and instability; problems that may not arise with an earmarked budget.

3.2.2 The tax base

If equity concerns are focussed on ability to pay the tax should aim for proportional or progressive taxes with income and wealth as the principal tax base.

The benefit principle of taxation suggests that a tax should be avoided if it creates a discrepancy between those who pay and those who benefit. The NHS offers universal coverage so the benefit principle suggests that its funding should aim for a broad base (which can't get broader than the consolidated fund).

Also there are efficiency problems in linking the hypothecated tax to a narrow revenue base. A narrow base means that the revenue is more likely to follow a long-term trend, which may be moving in the opposite direction to the trend in real health expenditure, or may not be increasing at the same rate as health spending. The revenue will be more prone to volatility and in particular to cyclical variations, leading to problems of deficits in social insurance funds and hampering budgetary flexibility. For example, if recession leads to a shortfall in revenue for the NHS fund the government would have to step in with a subsidy from the general fund, a move which undermines the purpose of hypothecation as a transparent, responsive and autonomous fund.

However in their policy simulations Ludbrook and Maynard (1988) argue that,

'social insurance funding of the NHS should not lead to unexpected deficits provided that the present system of cash limits is retained'.

The uncertainty of the tax base may still play a role here. There could be shortfalls or windfalls in actual revenue out-turns, reflecting inaccuracies in revenue forecasts and unanticipated changes in the economy during the fiscal year. If an NHS fund sticks with the current system of cash limits set for a three year planning period, expenditure on the NHS could be determined by cash limit (i.e. planned expenditure). Then a) shortfalls could be subsidised from the general fund, and b) the health fund could be allowed to accumulate so that surpluses are used to fund deficits with annual adjustments in rates to reflect any discrepancy in revenues and projections about tax base. But this does not achieve objectives of transparency and responsiveness. Subsidies undermine the public choice argument and, if the budget is actually determined by cash limits, the health tax is irrelevant to setting the level of expenditure and does not provide a mechanism for the public to choose the level.

3.2.3 Tax incidence

The economic theory of taxation tells us that the *legal* incidence of a tax may be quite different from its *economic* incidence. For example a health tax levied through employer's National Insurance Contributions may be shifted backwards on to employees through reduced wages or forwards on to consumers through increased prices. An understanding of the likely incidence of a tax, which requires some knowledge of how different agents will respond to price changes, is important to predict the the impact on the economy in terms of employment, wages, and prices and to assess the distributional implications of the tax.

3.2.4 Flexibility

The traditional view in public finance theory supports the Treasury case that hypothecation limits budgetary flexibility and the ability to respond to changing priorities and demands on the system. For example Ken Messere, quoted in the *Guardian* (17/8/94), argues that there is 'no use in having an under-utilised unemployment fund in times of low unemployment when poverty is mainly due to growth in one-parent families'. In contrast the public choice perspective argues that earmarking may protect valuable areas of public spending. But will it also constrain them when the general fund expands?

The balance between spending on the NHS and on other areas of the Welfare State is at the heart of The Commission on Social Justice's (1994) rejection of an earmarked health tax. They argue that health care is only one of the determinants of the nation's health and that its contribution is often marginal relative to social, environmental and economic influences. From this perspective earmarking tax revenue for NHS services would 'in reality be an illness tax', which may divert funding from policies aimed at prevention and health promotion.

3.2.5 Transparency and responsiveness

The question of transparency is whether taxpayers are aware of how much tax they are paying and how the revenue will be used. Responsiveness is how the tax system affects the response of public expenditure to public preferences for the level of spending and for changes in spending priorities.

Proponents of hypothecated taxes argue that they are both more transparent (those paying a health tax know that their money will fund the NHS) and more responsive (a health tax will be able to draw on the popularity of the NHS to generate greater revenue). This is the prime argument for hypothecated taxes in terms of efficiency and it is based on the presumption that hypothecated taxes will provide a more socially optimal level of health spending than general taxation. At the heart of this issue is whether the linkage between the hypothecated tax and the spending for which it is earmarked is genuine.

Doubts about the reality of this linkage are at the heart of the sceptical reaction to the recent Liberal Democrat proposals. This is captured by Andrew Dilnot, quoted in the Independent (17/8/94), who argues that hypothecation is 'almost always a deceit... there is very rarely any real linkage between these sorts of taxes and the spending in the areas they purportedly go to'.

The issue of linkage is central to Wilkinson's (1994) distinction between 'strong' and 'weak' earmarking. With strong earmarking the amount of revenue dictates the level of spending, with weak it does not. In the case of weak earmarking of a complete spending programme Wilkinson argues that,

'the argument here is not efficiency, matching supply with demand; rather, it is based on the view that if people know that their money is going to, say, the NHS, they will willingly pay the tax. It is a matter of faith and expediency (and the faith may be misplaced)'

Wilkinson (1994)

This view suggests that hypothecation is just a way of making the payment of taxes more palatable. Aside from any political advantage to the Government of the day, the use of a hypothecated tax without a genuine linkage to spending satisfies none of the benefits claimed for it. Hypothecation will not make spending more responsive unless accompanied by an adequate mechanism for 'preference revelation'. In fact some proposals may lead to perverse incentives e.g. sin taxes imply that if people want more spent on NHS they should smoke and drink more – not the desired outcome in terms of public health (or future demands on the NHS).

Ludbrook and Maynard (1988) recognise the

argument that replacing general funding with an earmarked tax may provide an 'incentive effect' in the sense that people may be more willing to pay additional taxes if they know that the proceeds are earmarked for the NHS, but they argue that this is a 'difficult proposition to test'. One issue here is whether this incentive effect is realised by the Government's need to respond more to public preferences under a system of earmarking or whether it is realised through behavioural responses by taxpayers. We intend to analyse this question in a future report.

3.2.6 Autonomy and accountability

There is a need for political control and accountability in public spending to set the objectives for the system and to avoid waste and fraud. Establishing a separate agency and mechanism for the collection of health tax is likely to involve a wasteful duplication of resources.⁸ But this does leave the possibility of a separate agency to administer the health fund. Culyer (1995) suggests that there may be some merit in this,

'The need to create a mechanism through which genuine desires by the purchasing/voting public for greater expenditure on health care can be reflected in the actual resource flow to the NHS, thus escaping an implacable Treasury public expenditure constraint imposed on the grounds of so-called macro-efficiency but at the cost of probable micro-inefficiency'

(Culyer, 1995)

Culyer is careful to point out that this additional expenditure would only be welcome if it leads to more cost-effective care, not if it leads to rent-seeking and waste. In assessing this proposal it is important to ask whether an unelected agency would be more responsive to the public's priorities and willingness to pay for health care?

3.3 Summary

This section summarises the preceding discussion in the form of a table. Table 5 lists the policy objectives, identifies their main implications, and assesses the kind of policy instruments that are

⁸ The Public Finance Foundation (1988) discuss the additional administration costs associated with social insurance funds in continental Europe.

consistent (FOR) or inconsistent (AGAINST) with each objective. The contradictions revealed in Table 5 show that it would be hard to make a case for hypothecated funding of the NHS which is able to satisfy *all* of the broad objectives of health care financing in the UK. This suggests that the advocates of earmarked funding need to do more to elucidate the mechanisms by which hypothecation may lead to greater transparency and responsiveness in health care financing.

Table 5 also identifies aspects of tax hypothecation that are worthy of further analysis. In future work we intend to explore the issues of the economic efficiency, transparency and responsiveness of a hypothecated health tax by developing an economic model which provides a direct linkage between the Government's decision-making and the preferences of voters. This will incorporate alternative characterisations of the relationship between Government and electorate which affect the likely consequences of different forms of tax hypothecation. Our objective will be to explore whether a separate tax to fund the NHS is likely in principle and in practice to lead to levels of spending on the NHS that better reflect the preferences of UK citizens, (i.e. will our 'responsiveness' objective be met). We will also be considering the implications for the other objectives, in particular those of efficiency and equity.⁹

While the balance of evidence appears to be against the proposals discussed in the report, renewed interest in hypothecated taxes does focus attention on the appropriate level of funding for the NHS and whether the current system is equipped to cope with the continuing real growth in health care expenditure. Our future work will look at how responsive to public preferences on funding a hypothecated health tax could be. The emphasis on transparency and responsiveness may, however, also help to stimulate other innovative proposals to encourage greater public awareness and involvement in the difficult issues of priority setting and rationing of health care.

9 The specific goal of the model is to examine whether the claims for a behavioural response to tax hypothecation are affected by a differential willingness to pay hypothecated and non-hypothecated taxes.

Table 5 Summary of implications for tax-funding of the NHS

<i>Objectives</i>	<i>Implications</i>	<i>Policy</i>
Equity	<ul style="list-style-type: none"> ▣ Funding based on ability to pay should be progressive (or proportional) 	FOR: income tax AGAINST: indirect taxes, VAT and excise duties
Efficiency	<ul style="list-style-type: none"> ▣ should minimise distortions to economic activity ▣ should encourage an 'optimal' allocation of spending for the NHS ▣ should encourage efficiency in the provision of health care 	FOR: additional funding earmarked for interventions with proven clinical and cost effectiveness
Benefit Principle	▣ coverage should be as universal as possible	FOR: consolidated fund AGAINST: excise duties
Revenue Base	<ul style="list-style-type: none"> ▣ should be stable ▣ should not be cyclical ▣ should grow at equal or greater rate than planned for NHS 	FOR: consolidated fund AGAINST: excise duties, corporation tax, NICs FOR: consolidated fund, VAT AGAINST: excise duties
Flexibility	▣ should be able to respond to changing spending priorities within the NHS and across spending departments	FOR: consolidated fund AGAINST: separate NHS fund
Transparency	<ul style="list-style-type: none"> ▣ economic incidence of tax should lead to transparent tax payments ▣ genuine linkage ▣ transparent expenditure ▣ transparent outcomes 	FOR: income tax AGAINST: indirect taxes, employers' NICs, corporation tax FOR: separate NHS fund
Responsiveness	▣ an adequate mechanism for the revelation of public preferences	

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