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Tax-based EU own resources: An assessment

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Tax-based EU own resources: An assessment

by

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Working paper No 1 — April 2004

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Summary

The ongoing intergovernmental conference (IGC) and the preparation of the "Financial Perspectives post-2006" i.e. the next multi-annual financial framework of the European Union, have led to new discussions on the issue of EU own taxes.

As this issue is also likely to emerge regularly in future debates, it is useful to present a structured analysis of some of the pros and cons of giving taxing powers to the Union. Such an analysis has already been made in the past, notably in Agenda 2000, which presented the European Commission's position concerning the EU financial framework for the period 2000-2006. Several possibilities for a "genuine" or tax-based own resource ("EU tax") were presented and assessed in Agenda 2000. However, that analysis requires revision and updating to take account of the considerable evolution of EU objectives and policies in recent years and to include an assessment of new possibilities, such as, for instance, a climate charge on aviation emissions.

Eight criteria are applied to nine main candidates for EU taxation and comparisons are made with regard to these criteria. One of the main conclusions that can be drawn from this multi-criteria analysis is that there is no such thing as a perfect tax for the EU. All the main candidates that have been suggested for EU taxes have some pros and some cons.

The inability of proposed EU taxes to meet fully certain criteria should not lead to the conclusion that these taxes should be dismissed, as has sometimes been argued in the past. On the contrary, the analysis presented here highlights the fact that the choice between one or several EU taxes would critically depend on a political choice as to which criteria should be considered essential and which secondary. Furthermore, an assessment of a tax as a possible candidate should ultimately have regard to its impact on the functioning of the overall financing system of the EU.

Keywords: EU tax, own resource, aviation emission, EU corporate income tax, modulated VAT.

JEL Classification: H21

I. INTRODUCTION

Tradition has it that any serious discussion on the financial perspectives of the European Union (EU) also leads to heated debates on the EU's need to decide on its own resources. This is not surprising since the power to raise taxes is often seen as a central element of state sovereignty. Neither is it a new issue or one that is specific to the European Union. As early as 1787, Alexander Hamilton, one of the founding fathers of the USA, strongly advocated the collection at a central level of certain taxes in preference to a system limiting central revenues to customs duties and contributions by the States of the Union. He described "*requisitions upon the States*" as having the "*inevitable tendency [...] to enfeeble the Union, and sow the seeds of discord and contention between the federal head and its members, and between the members themselves*" [Hamilton, 1787].

The ongoing intergovernmental conference (IGC) and the preparation of the "Financial Perspectives post-2006", i.e. the next multi-annual financial framework of the European Union, have led to new discussions on the issue of EU own taxes. As this issue is also likely to emerge regularly in future debates, it is useful to present a structured analysis of some of the pros and cons of giving taxing powers to the Union. Such an exercise has already been made in the past, notably in the context of Agenda 2000, which presented the European Commission's position concerning the EU financial framework for the period 2000-2006 [European Commission, 1998]. Several candidates for a genuine or tax-based own resource ("EU tax") were presented and assessed. However, that analysis needs to be revised and updated to take into account the considerable evolution of EU objectives and policies in recent years and to include an assessment of new possibilities, such as, for instance, a climate charge on aviation emissions. The present revision of previous work also provides scope for a deepening of the existing analysis and an adaptation of criteria for the evaluation of possible candidates.

In what follows, specific assumptions have been made concerning the practical aspects of some of the suggestions for an EU tax. These assumptions should not be considered as political choices. They rather represent what the author views as the most sensible technical options for a future EU tax in the current EU context. The 'central scenarios' presented here do not exclude alternative options. They do however provide an idea of the main pros and cons of any possibility.

It should also be clear that a discussion on EU taxation can only provide partial information as to the feasibility of a proposed EU financing *system*. The coherence and sustainability of a financing system very much depends on the interaction of its constituent parts. Hence, some drawbacks related to specific taxes may well be irrelevant in the wider context of a future EU financing system. This Taxation Paper does not attempt an overall assessment of either the present or a possible future financing system for the Union. Instead, it focuses on the examination of possible individual taxes that could be assigned to the European Union. A broader analysis, presenting the European Commission's position on the future financing system of the

EU, can be found in the recent Communication on the Policy challenges and budgetary means of the Enlarged Union for 2007-2013 [European Commission, 2004].

Lastly, the technical assessment presented here offers only partial and technical guidance for decision taking. Designing an EU financing system ultimately depends on broader political objectives and the weight placed on specific assessment criteria. In other words, this paper does not address the eminently political question of whether there should be a new European own resource, but merely analyses possible candidates for an EU tax.

The paper is structured as follows. The next section (section II) presents the analytical framework used for the assessment of candidates for an EU tax. This framework refines the analysis made in Agenda 2000. The third section presents and assesses a number of possible candidates for EU taxes with respect to the criteria proposed in the second section. The fourth section presents a horizontal analysis for nine possible EU taxes. Conclusions are drawn in the fifth section.

II. CRITERIA FOR THE ASSESSMENT OF EU TAXES

This section briefly presents the criteria that could be used to carry out an assessment of possible EU taxes. Three main categories of criteria are distinguished. The first covers the budgetary criteria. The second category deals with criteria related to economic efficiency. The last category examines several equity criteria.

It is considered here that the technical analysis should not place emphasis on any specific criterion. At this stage, many uncertainties remain that call for a cautious and balanced approach to the matter, without any predefined view of the ultimate outcome of the forthcoming debates on an EU tax. This approach differs somewhat from the one followed in Agenda 2000 where a distinction was made between "primary" and "secondary" criteria.

It should also be noted that the analysis places little emphasis on the transition costs towards an EU tax. The decision not to deal with these costs was made owing to the difficulty of assessing both the economic and the political costs of such a transition. Nevertheless these costs could prove a critical argument in adopting or rejecting a possible EU tax in the future.

II.1. BUDGETARY CRITERIA

Some of the criteria considered important in the analysis made in Agenda 2000 and in other studies relate to issues that go beyond the mere question of an EU tax. As will be shown below, the sufficiency criterion raises questions as to the mix of resources needed to finance the EU budget in the future while the stability criterion relates to the issue of financial autonomy for the EU.

(i) Sufficiency

The evaluation of any possible EU tax depends heavily on the tasks of the EU, their evolution over time, and the existence (or absence) of other resources for the Community. For instance, if an EU tax were to replace the VAT and GNI contributions, it would need to be a substantial tax, bringing about revenues equivalent to close to 1% of the EU GNP. Furthermore, should the EU budget increase over time, one would have to make sure that the EU tax did not rely upon a base that tended to decrease over time. These arguments relate to the sufficiency criterion. The latter can be stated as follows :

<u>Criterion N°1 : Sufficiency</u>

Would the revenues of the EU tax be sufficient to cover the expenditures of the EU in the long run?

If the envisaged EU tax does not fulfil this criterion, it could be possible to combine several small taxes to obtain sufficient revenues. Alternatively, a solution could be found by complementing the EU tax with other resources such as direct contributions or grants from the Member States or other own resources in line with the current system. In short, the sufficiency criterion has to be placed in the broader context of the overall financing of the EU budget, beyond the question of an EU tax.

(ii) Stability

Taxes can bring about more or less stable revenues across time. For example, some tax revenues are very sensitive to the business cycle or to the price of commodities. As a consequence, for purely technical reasons EU revenues may be insufficient for a given year, while they may exceed the needs in the following year. In short, even though the sufficiency criterion might be respected in an average year short term variations in the EU tax revenues may prove particularly difficult to manage.

Therefore, in the future budgetary framework, the short-run stability of the EU tax revenues will have to be taken into account when designing the new budgetary framework. This gives rise to the following criterion:

<u>Criterion N°2 : Stability</u>

Would the EU tax bring about stable revenues to the EU budget?
--

If the tax does not fully satisfy this criterion, it may be necessary to complement it with other, more stable, resources. Alternatively, more fiscal autonomy of the Community could also be accompanied by more *financial* autonomy, that is, a capacity to borrow on (or lend to) the financial markets. This would allow the Community to soften the budgetary impact of exogenous revenue shocks.

However, this last, politically sensitive, issue falls beyond the scope of this paper and is not dealt with further in what follows.

II.2. EFFICIENCY CRITERIA

As a general principle, tax competences should be assigned to the level of government where they can be managed best and in order to foster an efficient working of the economy. In what follows, efficiency is understood as the capacity to achieve a specific objective with the smallest possible amount of resources. Three types of efficiency arguments are considered in particular. The first one focuses on the accountability-enhancing impact of an EU tax and the so-called “visibility” criterion. Next, the operating costs of taxation, i.e. the compliance and administrative costs, are examined. Lastly, the effect of taxation on the efficient allocation of resources in the EU is scrutinised.

(i) Visibility

Creating an EU tax may increase transparency of EU financing and thereby foster the involvement of the Parliament in budgetary matters. This in turn could have positive consequences in terms of efficiency. Indeed, as taxpayers tend to question the use and the amount of the taxes they pay, they also force the tax authorities to better justify the use of their resources and to make the best use of them. Increased transparency may thus impact on the accountability of a government and on overall efficiency.

However, it is probably impossible to measure directly the effect of a tax on accountability of a government, as this “best use” of resources is difficult to define in practice. Therefore, the accountability impact of a tax reform has to be assessed indirectly. In this respect, the “visibility” of a tax is probably an acceptable second-best indicator to highlight the effect of a tax on accountability. The visibility is understood here as all the factors that increase the awareness of the taxpayers to the amount of taxes raised and on the final destination of the proceeds of the tax. The visibility criterion can be expressed as follows:

<u>Criterion N°3 : Visibility</u>

Would the EU tax be visible for the EU citizens?
--

(ii) Low operating costs

An EU tax could have an important impact on the compliance and administrative costs of taxation. The increased co-ordination related to an EU tax could in particular lead to substantial cost-savings for taxpayers and/or tax administrations of Member States. In other cases an EU tax could, on the contrary, be applied in

addition to existing taxes and impose a new burden on taxpayers and/or administrations.

Operating costs of taxation could particularly decrease in the case of taxes characterised by so-called “regional arbitrariness” that are transferred to the EU. Regional arbitrariness refers to situation where it is difficult to determine what the exact share is of a tax base that should be attributed to one or other Member State. In this case complex tax-sharing rules have to be defined, e.g. for corporate income taxation, which sometimes prove costly to both taxpayers and tax administrations. In these cases, it may be more efficient to assign the tax to the ‘higher’ level of authority, as is for instance the case for customs duties in the EU. These arguments can be summarised as follows:

Criterion N°4 : Low operating costs

Would the EU tax be simple to administer and involve low compliance costs?

(iii) Efficient allocation of resources

Taxes may modify the structure of prices in the economy. This may in turn affect the behaviour of economic agents. In some cases, a change of behaviour is precisely the objective underlying the creation of the tax. This is, in particular, the case where there exist market imperfections or externalities, such as in the environment field. In other cases, such a change of behaviour is not desirable and it can be a source of economic inefficiency. This is, for instance, the case when the tax treatment of a specific investment differs according to its location in the Internal Market. The ultimate location of the investment may then be determined by tax rather than by productivity concerns.

Hence, an EU tax may facilitate the efficient allocation of resources on two grounds. First, it can potentially provide leverage for Community action and foster EU policies in fields where there are cross-border externalities and limited co-ordination of tax policies among Member States. Second, it can also lead to a harmonisation of some tax bases, with potential benefits for the Internal Market. An assessment of an EU tax should take into account these allocation effects. These concerns give rise to the following criterion:

Criterion N°5 : Efficient allocation of resources

Would the EU tax lead to an efficient allocation of resources in the EU?

II.3. EQUITY CRITERIA

The design of a tax system can have important implications in terms of equity. This is why two commonly used equity criteria, i.e. horizontal and vertical equity, are examined in this section. It should be noted that these equity criteria refer to the situation of *individuals*. In addition, a third criterion related to the issue of the overall

impact of an EU tax on Member States, the “fair contributions” criterion, is examined. This last criterion calls for a discussion on equalisation mechanisms in the EU budget.

(i) Horizontal equity

Horizontal equity refers to the principle that “equals should benefit from equal treatment”. To make horizontal equity an operational idea, one must define the meaning of equals. In particular, should the latter be based on the ability to pay, the earning capacity or the pre-tax level of utility of the taxpayers? There is no easy answer to these questions. However, when it comes to assessing an EU tax proposal, the focus is only placed on the tax having an identical impact in the various Member States for a given taxpayer. At European level, this principle has an important symbolic value. Unequal tax treatment of equivalent EU taxpayers across the EU would probably be considered as discriminatory and against the ideals of the European construction. This can be expressed in the following way:

<u>Criterion N°7 : Horizontal equity</u>
--

Would the EU tax have an equal impact on equivalent taxpayers across the EU?
--

It should be noted that this criterion would automatically be respected for taxes with a common tax base and rate across the EU.

(ii) Vertical equity

The vertical equity criterion focuses on distribution of income among citizens. It is often argued that redistribution policies are a matter for the Member States, according to the subsidiarity principle. Member States are better aware of the needs of the citizens and of the appropriate amount of redistribution needed on their territory. However, as it is likely that an EU tax *would* have some impact on income redistribution, it is necessary to provide a guideline for the assessment of EU taxes in this respect.

It is often suggested in the theory of fiscal federalism that taxes with a distribution feature should be attributed to the most *centralised* level of government. This is so because when taxpayers are mobile across tax jurisdictions the well-off tend to move towards low tax jurisdictions while poorer taxpayers tend to concentrate in jurisdictions favouring income redistribution (and higher taxes). As a consequence, the redistribution mechanisms may not be sustainable in the long run. Furthermore, acceptance of an EU tax for the European citizens would probably require it to involve some degree of income redistribution. These concerns can be expressed in the following way:

<u>Criterion N°6 : Vertical equity</u>
--

Would the EU tax involve income redistribution?

(iii) Fair contributions

Financing the EU budget through Member States' contributions is quite different to financing it through an EU tax. Taxes are not contributions. And taxpayers are not Member States. However, considering the sensitivity of the issue of contributions to the EU budget in most Member States, an assessment of possible EU taxes with regard to this criterion seems useful. The idea here is to consider the amount of the EU tax collected in a given Member State as its (indirect) "contribution" to the EU budget.

In what follows it is considered that a tax that would bring revenues from a Member State in line with the Member States' economic development would probably be easiest to accept. This would be consistent with the increasing reliance on the GNI contribution in the EU budget. This gives rise to the following criterion:

Criterion N°8 : Fair contributions

Would the EU tax raise revenues in the Member States in line with their economic development?

If the tax does not fully satisfy this criterion, a possibility would be to develop an equalisation mechanism to redistribute revenues across Member States. Such a mechanism could take into account the overall contributions of the Member States to the EU tax, as well as the variables linked to their economic development and their needs. However, this issue of equalisation or a "correction" mechanism goes beyond the scope of this paper and is therefore not dealt with in what follows.

BOX 1 : EIGHT CRITERIA FOR AN EU TAX

The assessment of the possible EU taxes is made with regard to the following eight criteria.

Criterion N°1 : Sufficiency

Would the revenues of the EU tax be sufficient to cover the expenditures of the EU in the long run?

Criterion N°2 : Stability

Would the EU tax bring about stable revenues for the EU budget?

Criterion N°3 : Visibility

Would the EU tax be visible to the EU citizens?

Criterion N°4 : Low operating costs

Would the EU tax be simple to administer and involve low compliance costs?

Criterion N°5 : Efficient allocation of resources

Would the EU tax lead to an efficient allocation of resources in the EU?

Criterion N°6 : Vertical equity

Would the EU tax involve income redistribution?

Criterion N°7 : Horizontal equity

Would the EU tax have an equal impact on equivalent taxpayers across the EU?

Criterion N°8 : Fair contributions

Would the EU tax raise revenues from the Member States in line with their economic strength?

III. POSSIBLE EU TAXES

This third section presents a systematic assessment of nine possible EU taxes with regard to the eight criteria defined above. This assessment relies heavily on a number of assumptions. In most cases, the proposals found in the literature are rather imprecise, which makes their assessment difficult in practice. By entering into some details, one can then better underline possible issues -and sometimes solutions- related to possible EU taxes.

In any event, it is important to underline that the assumptions made below are "working" assumptions and do not reflect in any way a political decision taken by the European Commission. However, when several options were equally feasible from a technical point of view for a given candidate, preference has been given to the one that the author considered most realistic in the current EU political context.

In order to highlight the main merits and drawbacks of each possibility and facilitate comparisons, stars (*) are used. Their interpretation can be found in Box 2 below.

BOX 2 : INTERPRETING THE ASSESSMENT

The assessment of possible EU taxes is based on the answer to questions (see the criteria above). They are summarised using stars (*). These should be interpreted as follows:

*** The answer to the question is clearly positive. Important positive arguments outweigh negative ones. The tax thus satisfies the relevant criterion to a high degree.

** The answer to the question is ambiguous. There are both positive and negative arguments to take into account or a lack of any convincing information to take position. Two stars thus represent a balanced situation, where the criterion is only partially achieved.

* The answer to the question is undoubtedly negative. Negative arguments clearly outweigh positive ones. The tax is thus unlikely to fully achieve the criterion.

III.1. MODULATED VAT

The proposal for a modulated VAT has been advocated by the European Parliament (1994). The Langes Report stated in particular that “a proportion of a largely harmonised VAT, imposed on the basis of tax declarations and clearly denoted on each individual invoice as EU taxation would at present be the most convincing form of own revenue”. The main features of this proposal are presented below, considering the broad political support and the legitimacy of this proposal.

In practice, the Langes Report suggested using a harmonised VAT base. The amount of the EU tax would be clearly differentiated from the amount levied for the national VAT on the invoices. Both national parliaments and the EU would be granted the power to determine separately which rate would be imposed for purposes of the national budget and which for the EU budget, respectively. There would be a combined VAT rate consisting of the national and the EU rate. For the EU rate, a figure of 2% was suggested as a starting point but the figure could then be increased if the commitments of the EU were extended. To contribute to equity across individuals within the Member States, the report also proposed that there would be two VAT rates, e.g. at 1.5% for the basic necessities and 3.0% for all other goods and services. The total, combined, tax rate should not increase following the introduction of EU rates as the "national" tax rates could be decreased correspondingly by Member States. This would be possible because national (VAT and GNI) contributions to the EU budget would be significantly reduced, or even eliminated.

Three main issues should be taken into account when designing a genuine EU VAT. Each will require delicate political discussions.

- First, some Member States have zero-rated goods. Where national administrations apply a zero rate, it is difficult to apply any EU surcharge to be compensated for by an equivalent reduction in the national rate. Indeed, the rate in these cases would have to remain zero and, therefore, corresponding revenues would be nil. However, not applying an EU surcharge at all to these goods would lead to important national differences, while applying only the EU rate to these zero-rated goods would lead to considerable administrative and political problems. Developing a workable EU VAT system would therefore most likely require the elimination of systems of zero-rated goods. This would entail that in some Member States, whole economic sectors move from *de facto* exemption to taxation. As an alternative, zero-rated goods could be kept but this would be taken into account in the design of a compensation mechanism.
- Second, besides the elimination of the system of zero-rated goods, further progress might be required as to the harmonisation of VAT bases. Nowadays, the VAT base is largely harmonised across the EU. But there still remain differences, mainly due to limitations to the right to deduct VAT. Other differences due, for instance, to exemption for small firms or flat-rate farmers have a minor impact on VAT receipts. However, considering the already large degree of harmonisation of tax bases, the possibility of creating a genuine EU VAT should not be excluded,

even in the absence of full base harmonisation in a first stage. There again, some limited compensations can be envisaged in the design of the overall own resource system.

- The last main difference between Member States VAT systems relates to the impact of black economy on VAT revenues. Some studies, such as Parsche et al. (1996), highlight that differences between Member States could be significant in this respect. This may raise concerns that the amount of tax collected in some Member States would not reflect their true ability to pay. There is no obvious solution to that specific issue. Better enforcement of tax regulations is certainly required.

It should be noted that whereas the technical preparation required for the implementation of an EU VAT would not be particularly complex, some of the above-mentioned issues are very sensitive from a political point of view. In particular, the treatment of zero-rated goods in some Member States or the elimination of a list of exemptions do not imply lengthy technical preparation. However, past discussions have highlighted the virtual impossibility of achieving unanimous decisions for VAT issues involving the level or scope of rates.

Criterion	Assessment of the Modulated VAT	Rating
Sufficiency	VAT is a buoyant source of revenue representing on average 7.0% of GDP in Member States in 2001 (European Commission, 2003). Applying a surcharge of 2% to the existing VAT base (including on zero-rated goods) would bring about revenues equivalent to between 0.8% and 1.3% of Member States GDP, as compared to a EU budget close to 1% of EU GDP. Moreover, tax receipts grow in line with increased spending on goods and services without any change in the VAT rate(s). Furthermore, in the long run, if resources need to be increased, this is achievable through an increase in the VAT rate(s).	***
Stability	Private consumption, which would be the principal component of the VAT base, has cyclical characteristics. OECD (2000) shows that the elasticity of indirect tax revenues to the GDP is close to one in most EU countries, with a minimum of 0.5 in Ireland and a maximum of 1.6 in Denmark. However, it is unlikely that the replacement of the third and (possibly) fourth resources with a VAT resource of the type proposed would introduce additional short-run variability in EU budget revenues. Indeed, the current third resource is closely related to VAT, while a consumption-based tax (the EU VAT) should be more stable than a GDP-based contribution (the GNI resource). This is so because the most volatile and cyclical components in GDP are investments and trade, while consumption and government spending are more stable. This also corresponds to the permanent income hypothesis with consumption smoothing over time. Overall, VAT could be a fairly stable source of revenue.	***
Visibility	In the form of two separate tax rates, a national and an EU one, the tax will undoubtedly be highly visible to taxpayers/citizens and is certain to be understood as a contribution to the EU budget.	***

Low operating costs	Adding supplementary rates to the existing VAT system would not substantially modify the working of the current system.	***
Efficient allocation of resources	The impact of modulated VAT on the allocation of resources in the EU would probably be limited. This is due to the fact that the EU rates would be low, i.e. 1.5-3%, and apply to a broad tax base.	**
Horizontal equity	Provided a full harmonisation of the base is achieved and the issue of zero-rated goods is addressed, there will be an equal treatment of equivalent taxpayers in the EU.	***
Vertical equity	In general, VAT is regressive, since poorer people tend to consume a larger proportion of their total income. The proposal for a two-rate structure offers a partial solution to this problem, by setting lower rates on essential goods.	**
Fair contributions	The EP (1997) has examined in depth the Member States' VAT contributions to the budget. From this study, it appears that 'VAT payments are influenced by many factors giving rise to inequities between Member States', e.g. the ratio of private consumption spending to GNP, the ratio of public to private consumption spending and the net trade balance for manufactured goods. More recent estimates, based on the so-called "intermediate" base used for calculating VAT contributions to the EU budget, show that the EU VAT collected in the Member States would be relatively similar (between 0.8 and 1.3% of GDP). Given the possibility of inequities in gross "contributions" resulting from a modulated VAT, the Langes report (1994) favoured an equalisation mechanism based on GNP, next to the VAT (see also EP, 1997).	**
Overall evaluation	<p>As main positive arguments, the Modulated VAT would bring sufficient revenues to the EU budget. It would be highly visible to the citizens and present horizontal equity. It would also be based on a tax that is already used in the EU financing. In practice, the new system would thus mainly modify practical arrangements related to the third resource and maybe fourth resource.</p> <p>In general, there would not be major efficiency or equity arguments against this proposal.</p> <p>However, some institutional aspects would have to be further examined. In particular, the VAT raised could vary from one Member State to the next, thereby requiring some kind of equalisation mechanism. Furthermore, some adjustments to Member States' VAT systems would probably be required, in particular the elimination of the system of zero-rated goods and further harmonisation of the VAT base. This could cause serious political difficulties.</p>	

III.2. EU CORPORATE INCOME TAX

Using corporate income as tax base for a new own resource has been examined on several occasions. Agenda 2000 refers in particular to a report by the European Parliament (1990) and to a thorough review of the issues involved in Albi et al. (1997).

However, little is said in Agenda 2000 about what concrete form a corporate income tax at EU level would take. For that reason some information on policy developments

in the tax or related areas in recent years is set out below in order to arrive at a definition of the main features of a possible EU corporate income tax.

- First, the *European Company* statute was adopted in 2001. In concrete terms this means that companies that have activities in several Member States are now able to utilise a specific legal statute at the European level. However, there are not yet any appropriate tax provisions in relation to this statute and this makes reflection on European corporate taxation particularly relevant.
- Second, the Communication on Tax Policy of May 2001 [COM(2001)260] in the European Union highlighted the importance of paying attention to the concerns of businesses and citizens in the Internal Market. In particular, it underlined the fact that businesses in the EU have to cope with up to 15 (soon 25) national tax systems while operating in the Internal Market. This leads to substantial compliance costs. In addition, the incompatibility of national tax systems sometimes makes it difficult to invest or to perform activities in other Member States. Therefore, there appears to be solid justification for approximating, if not harmonising, Member States corporate income tax bases.
- Last, the Communication on Company Taxation of October 2001 [COM(2001)582] and the associated study on Company Taxation in the Internal Market prepared by the Commission Services [SEC(2001)1681], as well as the follow-up Communication on Company Taxation of November 2003 [COM(2003)726], highlight the limitations inherent in a piecemeal approach to eliminating tax obstacles to the proper functioning of the Internal Market. These publications demonstrate how a comprehensive approach to corporate income taxation in the long term could eliminate current tax obstacles. Among the comprehensive approaches mentioned by the Commission, one is particularly relevant in the context of a systematic assessment of candidates as "genuine own resources", namely the EU corporate income tax (EUCIT). However, the Commission in the above documents expressed its preference for other approaches, on the basis that they would be likely to find more support from economic operators and Member States.

Developing a European Union corporate income tax (EUCIT) would require first a definition of a common (consolidated) tax base. This base would be applied in a compulsory manner to all companies liable to corporation tax or to a precisely defined group of companies subject to this tax, e.g. those listed on a stock exchange or multinational companies with above a given turnover threshold or European Companies. For the companies concerned the EU tax would have to replace the existing national corporate taxes. The applicable tax rate would need to be defined at EU level. Autonomous national surcharges could in theory be envisaged, but they would lead to significant administrative costs and political difficulties linked to the necessity of sharing the tax base (*via* "formulary apportionment") between the Member States.

The political difficulties of securing the agreement of Member States to a comprehensive approach such as the EUCIT should not be underestimated as all

previous proposals involving a substantial approximation of the corporate tax base have met with strong opposition in the Council. Furthermore, whereas comprehensive options on a voluntary basis are usually supported by the business community in the context of harmonising the tax base, a compulsory scheme at EU level, possibly implying higher tax rates, would be likely to face significant opposition from economic operators. Last, current discussions in the Council have also raised the question of whether a subgroup of Member States could develop a common tax base in order to reduce compliance costs and increase the competitiveness of their companies. The possible adoption of so-called "enhanced cooperation" in this respect would presumably not be made with the objective of the subsequent creation of a EUCIT.

Criterion	Assessment of the EU corporate income tax	Rating
Sufficiency	The tax base of the EU corporate income tax would be relatively limited and unpredictable. Although the corporate income tax represents on average 2.6% of GDP in the EU in 2001 (see European Commission, 2003), depending on the design of the scheme only a limited number of companies would be concerned by the EU corporate income tax. But these account for only a part of total value added and taxes. For instance, a recent study highlights that the share of foreign controlled multinational companies in total value added represented between 11.7% and 17.9% for five EU countries in 1997 (Eurostat, 2001). In these circumstances, the EU corporate income tax could not be used as the main or only resource of the EU. It would probably need to be complemented by other resources.	**
Stability	Corporate profits have pronounced cyclical characteristics. However, estimates of output elasticity of the corporate income tax differ widely depending on the methodology used. The OECD (2000) for instance finds an elasticity of the tax to GDP of 1.3 for a sample of 20 OECD countries. For the same countries Giorno et al. (1995) found an average elasticity of 2.7. The replacement of the third and fourth resources with a resource of the type proposed would thus significantly raise the short-run variability of EU budget revenues.	*
Visibility	Although the corporate tax would only affect directly those citizens who are owners of firms, the level of corporate taxation traditionally receives substantial attention in the political debates. As a result, depending on who was responsible for setting the EU tax rate, there could be an element of increased EU accountability if the citizens/voters were able to influence the level of taxation. This would in particular be the case in a scenario where the EU would be solely responsible for the corporate income tax.	**

Low operating costs	The obligation to deal with up to 15 (soon 25) tax systems and administrations is very cumbersome. Indeed, currently, any cross-border operation has to be monitored by at least two tax administrations. Market operators often complain about this. In the European corporate income tax system, the company would fill in only one tax form for all intra-Community transactions. This could lead to substantial savings in compliance costs for companies operating in the EU. The implementation of this tax could also lead to lower total administrative costs, since only one tax return would have to be prepared for participating companies. However, this positive view could be mitigated by the many practical difficulties that administrations would face when coping with the EU tax system parallel to the national system (should the EU tax be only applicable to a certain type of companies).	**
Efficient allocation of resources	A European corporate income tax could help eliminating tax obstacles to cross-border activities, thereby fostering a proper functioning of the Internal Market and lower compliance costs for economic operators [COM(2001)582]. Cross-border mergers and acquisitions would be easier. As a consequence, reorganisation of business activities and investments would be fostered. Furthermore, <i>ceteris paribus</i> , investment is located where it brings the highest after tax return. In other words, the current functioning of corporate income taxes is a source of distortions in the allocation of capital in the Internal Market. Harmonising the corporate income tax in the EU for multinational companies would allow for investments locations more in line with productivity. This would then improve efficiency in the EU.	***
Horizontal equity	Companies subject to the EU corporate income tax would face a common (compulsory) set of rules. Horizontal equity would thus be fully respected.	***
Vertical equity	The burden of corporate income taxation can fall on consumers, owners of the company capital or wage earners, depending on the context. It is therefore difficult to make a clear assessment of the effect of corporate income taxation on income distribution in the EU. However, CIT is often viewed as a withholding tax on dividends and thus on private capital owners, who can be assumed to be on the upper end of the income distribution. But this is not always true. For instance, most shares in UK listed companies are owned by pension funds which provide pensions for both low paid and high paid persons.	**
Fair contributions	The differing corporate income tax revenues observed in the EU nowadays (between 0.6 and 7.7% of GDP in 2001) result from highly differing tax systems. Furthermore, the economic structures, in particular the openness of the economy and the proportion of multinational companies could play an important role in the geographic impact of the EU tax. Amounts collected in the Member States could thus not fully reflect their economic development. At the same time, it has to be recognized that corporate income taxation is marked by a certain degree of "regional arbitrariness". This tax involves a mismatch between the geographical pattern of tax collection and tax burden, which makes any national reapportioning arbitrary. In this context, fair contributions are more difficult to define and assess.	**

Overall evaluation	<p>EU corporate income tax could offer significant benefits in terms of efficiency in the Internal Market. It could facilitate cross-border activities in the EU and make investments more efficient.</p> <p>On the other hand, there would be numerous technical difficulties, in particular if the new tax was defined for a specific group of market operators only. Furthermore, creating an EU corporate income tax would also require the development of – and unanimous agreement on – a harmonised corporate tax base.</p>
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III.3. ENERGY TAXATION

In the past decade, the Commission has put forward several proposals for directives in the field of CO₂ or energy taxation in order to facilitate the functioning of the Internal Market and to develop a more environmental- and employment-friendly taxation policy in the EU. The first of these proposals was the Commission's 1992 carbon/energy tax proposal. It envisaged a levy which was to start at \$3 a barrel of oil equivalent in 1993 rising to \$10 a barrel in 2000. It met considerable opposition in the Council. Therefore, subsequent proposals have had to be less ambitious.

The most recent proposal [COM(1997)30 final] mainly extends the scope of the existing directive on mineral oils to a number of other energy sources, e.g. coal, electricity and natural gas. It also increases the Community minimum excise duties on energy products. Discussions finally resulted in a unanimous political agreement of Finance Ministers on 20 March 2003 and the directive entered into force on 1 January 2004. Under this new directive, most energy products are subject to Community taxation. The directive entails the harmonisation of the tax base on mineral oils, natural gas, electricity and coal, and the approximation of tax levels through Community-wide minimum rates of taxation.

Although it is clear "that the [Commission] proposals [in the field of energy taxation] have not been prepared with the view to facilitating the establishment of new own resources" (Agenda 2000), energy tax has been considered a potential candidate as EU tax on several occasions. In the absence of a clear indication on the form of an EU energy tax in previous work on the matter, a number of assumptions have to be made as to what an EU energy tax could look like.

Considering the content of the energy directive, two main possibilities can be envisaged: a broad-based energy tax and an energy tax on motor fuel used for transport.

- In the first option, the tax base would encompass all the energy sources covered by the directive, including mineral oils, electricity, coal and natural gas. A differentiation of excise duties according to the use or quality of the product as well as exemptions and tax refunds would be foreseen in a number of circumstances as laid down in the new directive. This could for example be the case for energy-intensive companies, where competitiveness issues with third countries are very sensitive. The tax would be raised when the taxable

products are delivered to consumption and not at the level of the final consumer, in order to simplify the tax collection.

- In the second option, the tax base would only include motor fuel used for transport, that is, a part only of energy sources covered by the directive. Motor fuel used for transport includes leaded and unleaded petrol, diesel, kerosene, LPG and natural gas used for transport. Energy products used as a motor fuel for certain industrial and commercial purposes and those used as heating fuel would thus not be taxed at EU level. Furthermore, products used for air and maritime transport would also be subject to a specific treatment, in line with the directive. From a technical point of view, it should be noted that most possibilities of tax differentiation allowed by the energy directive apply to heating fuels and electricity, and to some very specific uses of motor fuel (see Article 8 of the directive). These may prove difficult to manage and make the broad-based energy tax less attractive than this second option.

In both these options, the EU tax rates (that is the rates used for the own resource revenue collection) could be set at levels equivalent to the minimum rates defined in the directive or at different rates, depending on budgetary needs and other objectives attached to the EU tax.

The question of whether Member States should be able to set additional tax rates (or surcharges) on top of the EU tax rates remains open. The answer depends notably on budgetary needs and other objectives attached to the EU tax. For instance, surcharges may not be desirable for commercial diesel fuel, non-commercial diesel and unleaded petrol if one wishes to achieve a high degree of harmonisation in these areas. Such an approach would be consistent with the Commission proposal of July 2002 concerning the harmonisation of commercial diesel fuel and the objectives laid out in the Commission's White Paper on European transport policy for 2010 [European Commission, 2001]. On the other hand, allowing Member States surcharges could facilitate the acceptability of proposals. It would also allow for national differentiations according to specific national priorities and policies.

The assessment of both options is substantially similar. The table below highlights differences where necessary.

Criterion	Assessment of the EU Energy Tax	Rating
Sufficiency	Taxes on energy represented 2.0% of GDP in 2001, while taxes on mineral oil accounted for 1.8% of EU GDP (EC and Eurostat 2003). A large part of mineral oils tax revenues relates to fuel used for transport. An EU energy tax, even it was limited to setting the EU tax rates at the level defined for the minimum rates in the directive, would probably bring sufficient revenue to cover a significant part of the EU budget. This is in line with previous Commission conclusions. For instance, in European Commission (1993) it was estimated that a USD10 tax per barrel of oil equivalent would yield about 1.1% of EU GNP in the context of a carbon/energy tax. In the longer run, the tax would also be sufficient: according to the European Parliament (1997), energy use correlates quite closely with GDP growth. Eurostat (2000) also shows that over the last 20 years, energy taxes have grown as a percentage of total taxes and as a percentage of GDP (from 1.62% in 1980 to 2.21% in 1997).	***
Stability	Being a tax based on quantities sold and not <i>ad valorem</i> , the energy tax would be relatively insensitive to the price of energy on the international markets because of the low price elasticity of demand. Past data shows that energy taxes revenues tend to be relatively stable (European Commission, 2003). The main changes (in % of GDP) have been observed in 1986 a year of sharp drop in oil prices (-0.15%) and in 1990-1992 a period of turbulences due the Kuwait crisis (+0.22%). In general, downward variations have been rather limited. Furthermore, as fuel prices only constitute a fraction of total transport costs (23%), the effects of a higher oil price would be correspondingly small on transport activities. Some simulations show that in the oil price hike in 2001, which translated into rocketing net fuel prices (+86%), total transport costs increased by less than 7%, triggering a reduction in transport demand and fuel consumption of 2-3% only.	***
Visibility	Public opinion is very sensitive to energy and pollution issues. It is therefore likely that any EU energy taxation would be widely publicised and debated.	**
Low operating costs	Energy taxation in the form of excise duties on a limited number of products, especially on motor fuels used for transport, would be relatively easy to administer compared to many other taxes.	***
Efficient allocation of resources	Provided the design of the EU energy tax leads to some harmonisation in the tax rates for energy products, it can foster an efficient allocation of resources in the EU. In particular, increased harmonisation for fuel products used by professional transporters can lead to better allocation of transport activities in the EU and reduced pollution. Taxation of energy products may also potentially contribute to achieving EU environmental objectives as regards polluting emissions. In particular, it could help Member States in their efforts to comply with the obligations stated in the Kyoto Protocol.	***
Horizontal equity	The harmonisation of the EU energy tax base makes it possible to apply an equal treatment to taxpayers in the EU.	***

Vertical equity	When it comes to heating products the burden of energy taxation falls proportionately more on poorer households. For other energy products, such as gasoline used for transport, the burden of the tax falls more heavily on well-off people. Therefore, whether energy taxes involve income redistribution has to be examined on a product by product basis. Overall the assessment of the two options presented above may differ on this specific issue of vertical equity.	**(*)
Fair contributions	The level of energy tax revenues differs significantly across the Member States. Energy taxes represent 1.2% of GDP in Ireland compared with up to 2.7% of GDP in Denmark in 2001 and 2.8 % in Luxemburg (see European Commission, 2003). This is due to different climate conditions, economic circumstances, available natural resource and political choices. However, this does not constitute a serious indication of potential unfair contribution, should the rates be harmonised at EU level.	**
Overall evaluation	<p>A European Energy tax, for instance focusing on motor fuels used for transport, could permit an efficient allocation of resources in the EU. It would also bring substantial revenues for the EU budget.</p> <p>Relatively easy to design and implement, it would nevertheless also have a number of drawbacks. Under the broad base option in particular there could be vertical equity problems.</p>	

III.4. EXCISE DUTIES ON TOBACCO AND ALCOHOL

In the EU, excise duties apply to a narrow group of goods, most notably tobacco, alcohol and mineral oils. Presently, several directives govern excise rates and structures in the EU. They define minimum excise rates for each product type and determine the product types subject to excise levies. They also explain the method of implementing the duties as well as the criteria for exemptions or preferential treatment as the case may be. As a result, extended base harmonisation has been achieved in some areas. However exemptions continue to be numerous. Furthermore since the level of the minimum rates is very low, i.e. sometimes the minimum rate is set at zero, there are significant differences between the rates applied among Member States. For example, for sparkling wines, the minimum excise duty is set at zero euro per hectolitre, with duties varying between €546.01 in Ireland and zero in producing countries such as France or Italy. Modifications of the existing directives have been proposed on occasions, notably to improve the unrestricted mobility of goods subject to excise duties in the Internal Market, to fight against tax evasion (smuggling), or to achieve environmental or other EU objectives, e.g. related to health.

The idea of using excise duties on these goods as EU tax has been examined in the European Parliament report (1994) and in the Agenda 2000. Although tobacco and alcohol excise duties, in particular, are regarded as important instruments of national social and health policy, it is conceivable that part of their yield could be assigned to the EU level. Contrary to these previous reports, which also took mineral oils into consideration, mineral oil is not examined here since it is analysed in the previous section. However, it is perfectly conceivable to mix various scenarios.

In order to assess EU excise duties with regard to the criteria presented in section II, the following assumptions are made. Firstly, the EU would levy a minimum rate on a harmonised tax base. This could imply removing existing exemptions and derogations. The Member States would be free to levy additional rates or not on all or part of this base. Lastly, the EU duties would be raised by national tax administrations and paid over to the EU.

Criterion	Assessment of the EU excise duties	Rating
Sufficiency	Excise duties are estimated to be as high as €63bn in 2001 for tobacco (0.73% of EU GDP) and €27.2bn for alcohol (0.31% of GDP) (European Commission, 2003). Although the EU excise duties would probably not be as high as the existing duties, revenues raised could be substantial. However, as the European Parliament (1997) points out, revenues raised on alcohol and tobacco do not increase in line with GNP 'because taxes are usually defined in terms of quantities rather than values'. This problem could, however, be mitigated by the fact that revenue elasticities are high in relation to rate increases because the demand for such goods is typically price inelastic. Lower revenues could then be easily compensated by higher duties.	**
Stability	Low elasticities with respect to GNP and low price elasticities of these goods would imply stable tax revenues. There is thus a limited risk of experiencing marked changes in the revenues raised over the business cycle.	***
Visibility	Provided the EU tax is clearly indicated on the bills, it will be visible to the citizens. However, the excise duties will bear on a narrow range of products and affect part of the population only, i.e. smokers and consumers of alcohol.	**
Low operating costs	Some limited costs could arise from the obligation, for taxpayers or tax administrations, to indicate the amount of excise duties paid to the EU on tobacco or alcohol products. On the other hand, if the minimum EU-wide excise duties lead to a reduction in the difference of total excise duties between Member States, it may lead to a reduction in fraud (smuggling) cases as these are directly linked to after-tax differences of alcohol and tobacco prices.	**
Efficient allocation of resources	Overall, EU-wide minimum rates of excise duties for all alcohol and tobacco products may lead to more uniformity in total excise duties levied on these products than is currently the case. This could limit distortions in the choices of (cross-border) consumption for these products. Nevertheless, this approximation of after-tax prices may be limited as national governments will still apply different supplementary rates on these goods.	**
Horizontal equity	The EU excise duty would be applied in a uniform fashion all across the EU. Equal treatment would thus be applied to equivalent consumers.	***
Vertical equity	Excise duties on alcohol and tobacco are regressive. Applying EU excise duties on these goods would not facilitate income redistribution at the EU level.	*

Fair contributions	The share of the bases of the excises in GNP differs substantially across the Member States. This is largely the result of social/cultural and economic differences. For instance, consumption per capita for tobacco and alcohol products tends to be highest in producing countries. This would not be consistent with the fair contributions criterion.	*
Overall evaluation	<p>The main advantage of European excise duties on tobacco and alcohol relates to the fact that the tax base is already largely harmonised. In theory, it could therefore be relatively quick and easy to impose minimum EU excise duties on these goods.</p> <p>The main drawback of the proposal is linked to the unequal sharing of the tax base across Member States, which would probably require some equalisation mechanism. Furthermore, excise duties on alcohol and tobacco also raise important redistribution issues.</p> <p>The analysis also underlines that the modalities of implementation of the tax can affect its assessment. For instance, there is a trade-off between more visibility given to the tax and the compliance costs for the taxpayers.</p>	

III.5. TRANSFER OF SEIGNIORAGE REVENUE

While the term seigniorage (or "inflation tax") is often used in the economic literature, there is no clear-cut definition of this concept. In general, one can say that seigniorage derives from the central bank's monopoly position as note issuer constituting legal tender, the liabilities of which are not remunerated or, in the case of compulsory reserves, are sometimes remunerated at below-market interest rates. These liabilities constitute the monetary base, the counterpart of which (holdings of government bonds and of other assets) yields interest or revenues at market rates. The idea of a transfer of seigniorage revenue from central banks to the EU budget has mainly been raised in relation to the development of the single currency. Since all countries belonging to a monetary union share the same currency and banknotes and coins freely flow from one country to another (and also outside the monetary union), the revenues stemming from these banknotes and coins are difficult to allocate on a purely national basis, i.e. there is a problem of "regional arbitrariness". Furthermore, seigniorage in a monetary union can also be considered a common good of the countries taking part in the union. Under this logic, a possible transfer of part of seigniorage income to the EU budget could be justified, thereby avoiding a national reapportioning.

In the context of a transfer of seigniorage revenue, one should distinguish between the "monetary income", or seigniorage as such, and the profits of National Central Banks (NCBs). In the EU the term "monetary income" has been established in the statute of the European System of Central Banks (ESCB) and of the European Central Bank (ECB). In article 32 of this statute the monetary income is defined as "the income accruing to the National Central Banks in the performance of the ESCB's monetary policy function". In practice, it is "equal to the annual income derived from the assets held against the notes in circulation and deposit liabilities to credit institutions". Central Bank profits differ largely from seigniorage. First, the profit is the result of a difference between revenues and costs, while the seigniorage is by definition an income. Second, the revenue of Central Banks usually includes various sources of revenues, beyond seigniorage. Other revenues result, for instance, from investments

of Central Banks' own funds (in particular capital and reserves), monetary policy operations, remunerated tasks related to the payment system and to the banking sector, etc.

Before turning to the systematic assessment of a transfer of seigniorage revenue to the EU budget, some problems need to be discussed. First, this transfer could have a significant and variable impact on Central Banks balances. Seigniorage constitutes a relatively stable component of Central Bank profits. However, other profit elements are much less stable and can even turn out strongly negative. For example, exchange rate movements affect the value of bond portfolios and contribute to the volatility of Central Banks profits. In addition, NCBs tend to have very different cost and income structures. Therefore, a transfer of seigniorage revenue could have a profound impact on EU NCBs, particularly if a significant part of seigniorage was transferred to the EU budget. This issue could be solved only by adapting the Central Banks transfer to their contributive capacity, which would then lead to significantly different contributions, or by making considerable adjustments in the revenues and costs structures of Central Banks, which may cause important practical and political problems. Second, from a political perspective, the taxation of the Eurosystems' monetary income could be seen as a signal of a loss of independence. However, it should be noted that in the current system Central Banks already transfer part of their profits to national treasuries in the form of dividend or tax payments. These issues would need to be addressed prior to introducing a transfer of seigniorage revenue. Lastly, it is assumed in what follows that an equivalent treatment would be applied to the Central Banks of Member States outside the euro area.

Criterion	Assessment of transfer of seigniorage revenue to the EU	Rating
Sufficiency	Estimated seigniorage amounted to approximately €10 bn for the Eurosystem in 2001. It should be noted that this estimate very much depends on the underlying assumptions and accounting rules. As a comparison, the aggregate profit of the Eurosystem could be broadly estimated at €25 bn in the same year. This amount corresponds to the total net income collected by the system, after deduction of all costs, but before taxes and dividend payments.	*
Stability	In theory the revenues arising from seigniorage can be relatively unstable in the short-run since they depend on the demand for cash balances and interest rates, which are notably affected by the business cycle. However, in the EU context, these variables are relatively stable. In the long run, the evolution of seigniorage is uncertain. On the one hand, changes in payments habits and the generalised use of electronic means of payment might erode the tax base. On the other hand, the development of the Euro as an international currency may contribute to seigniorage through increased circulation of euro banknotes outside the euro area.	**
Visibility	As an implicit tax, seigniorage is not visible to most citizens.	*
Low operating costs	Compliance and administration costs would be very small, since there would be only a few "taxpayers", i.e. the National Central Banks, and the tax base would be easy to define. Furthermore, fraud should be non-existent due to the transparency of Central Bank activities.	***

Efficient allocation of resources	In principle, a transfer of seigniorage revenue to the EU budget can be organised in an efficient way.	***
Horizontal equity	The tax base would be harmonised, and defined in relation to the monetary income of the Central Banks in the EU. Specific rules would need to be devised for Central Banks not forming part of the Eurosystem, i.e. outside the euro area, in order to ensure equivalent treatment.	***
Vertical equity	In principle, a transfer of seigniorage would have no or fairly limited direct impact on income redistribution in the EU. This is so because a large part of revenue accruing from seigniorage would be transferred from national budgets to the EU budget, this transfer being compensated by a reduction in direct national contributions to the EU. Considering the independence of NCBs in the EU, transferring their seigniorage should not lead to a change in the inflation.	**
Fair contributions	In the euro area there is an allocation scheme for the monetary income that is independent of the inflation rates of the Member States. There can, however, be minor differences between contributions of Member States belonging to the euro area and the others, depending in particular on differences in inflation and interest rates. Furthermore, it should be noted that once the current "transitional regime" is over, i.e. as from 2008, the Eurosystem's monetary income will be fully distributed to the NCBs (which are mostly owned by the Member States) according to the ECB capital key. This key is based equally on population and GDP. This could affect Member States' contributions to the EU budget, which is currently closely linked to GDP (VAT and GNI resources).	**
Overall evaluation	<p>Transferring seigniorage to the EU budget is in theory a fairly convenient and efficient way of financing the EU. It offers a number of practical advantages such as very limited compliance and administration costs. Furthermore, it scores well in terms of equity and fair contributions.</p> <p>Due to the relative lack of visibility of seigniorage, the impact of this transfer on accountability of EU budgets would be limited. This, however, is sometimes seen as an advantage at a political level, as it could facilitate the adoption of such proposal. Furthermore, the revenues would only cover a small part of the EU budget.</p> <p>The main issue linked to seigniorage therefore seems a practical one. Due to differences in their revenues and costs structures, some central banks may incur deficits as a result of the introduction of the transfer of seigniorage. Depending on the size of the transfer and, notably, whether all seigniorage income or only a part of it would be transferred to the EU budget, this may create sustainability problems in the long term for which there could be no simple solution.</p>	

III.6. COMMUNICATION TAXATION

The idea to use taxation of communication services as a source of revenue for the EU budget was introduced by Begg et al. (1997). It has been analysed in detail by the European Parliament (1997). EU-wide communications tax bases could include road transport, air transport, telecommunications in all its forms and, possibly, broadcasting. However, "sea and rail transport can probably be dismissed as being

unevenly spread geographically, and having favourable environmental characteristics that [EU] governments want to encourage”.

Concretely, the European Parliament (1997) focuses on three possible communications taxes. For telecommunication services, the tax would be a fixed amount per telephone ‘line’. It is assumed here that this amount would be paid by consumers and raised at the operators’ level. The EU telecommunication tax would be clearly identified on the bills. The tax on road transport would be a vehicle tax harmonised at the EU level. Member States could set surcharges on the EU tax, or raise other vehicle taxes. For air transport, the assessment presented below assumes that a European air tax would be a per capita tax on travellers. It is assumed here that national tax administrations would manage these taxes.

It should be noted that the creation of communications taxes would either require harmonising existing air travel and vehicle taxes or creating new taxes alongside Member States taxes. A telephony tax would have to be created in any case. This may not be easy.

More fundamentally, the justifications for the communications tax seem rather blurred. Although air travel and vehicles taxation can somehow be related to EU environmental objectives of limiting air pollution, it is not the case for a telephony tax. In the latter case, there are no clear externalities that would justify imposing a new tax. Furthermore, considering the objectives stated above, one may wonder whether the same objective could not be fulfilled more efficiently in a different manner. For instance, taxing vehicles is not a very efficient instrument for reducing polluting emissions related to road transport. In its Communication on taxation of passenger cars in the EU [COM(2002)431], the Commission actually recommends the gradual reduction and even abolition of registration taxes, to be replaced by annual road taxes and motor fuel taxes (see section III.3 above). In this proposal, the tax burden would remain the same but it would be related to the use of a car rather than its acquisition. In the same Communication, the Commission recommends that the taxation of new passenger cars be more directly related to their CO₂ emissions. The same arguments apply when it comes to air transport, where taxation of emissions seems more efficient than a per capita tax on travellers (see section III.9 below).

Criterion	Assessment of the EU communication taxation	Rating
Sufficiency	Previous studies have shown that revenues from this source will be adequate to finance only part of the EU budget. Begg et al. (1997) estimate that an airport departure tax of ECU 15 would yield around 10% of the EU budget, while an annual average tax per telephone line of ECU 40 could finance another 10% of the budget. In the long run, "communication" services are expected to continue growing at a significant pace. This would improve revenue prospects for the communications tax. On the other hand, it may become increasingly difficult to raise a tax on telephone lines in a fast-changing technological environment. Overall, an EU communications tax would have to be complemented by other resources if it were to finance the EU budget.	*

Stability	In principle, there are important cyclical components in telecommunications and air and road transports sectors. However, the vehicle tax and the tax on telephone lines are unlikely to present significant short-run changes. In case of economic recession it is unlikely that people would sell their cars or cancel telephone lines. Business cycle effects would be felt at the margin on the growth rate of the tax. On the other hand, the air travel tax may be more sensitive to short-run economic shocks, as both companies and citizens tend to cut back on travel expenses in case of economic hardship.	**
Visibility	The taxes on telecommunications, on road transport and on air transport would be very visible to many consumers. They would clearly appear on the bills of the taxpayers.	**
Low operating costs	Compliance costs would be moderate. On the one hand, the communications tax is a set of new taxes to be faced by consumers or economic operators. This will require new arrangements and may impose a burden on economic operators and tax administrations. On the other hand, revenues could be collected relatively easily through existing structures. The air travel tax and the telecommunications taxes could be collected via the economic operators (air and telephone companies). The scope for evasion and fraud would be rather limited. Vehicle taxes could be collected by national tax administrations in charge of vehicle taxation, parallel to the national vehicles tax.	**
Efficient allocation of resources	Although the Agenda 2000 indicated that this tax would be consistent with transport directives and with strengthening competitiveness through the trans-European network (TEN) initiatives, the analysis above leads to a different conclusion. As it is proposed, the communication tax would not tackle in an efficient way congestion or pollution problems and, in the case of a telephony tax, it seems difficult to justify it for efficiency reasons.	*
Horizontal equity	Provided an effective harmonisation of the different tax bases for the communications tax is achieved, there should not be discrimination between taxpayers.	***
Vertical equity	“The number of vehicles is linked to income while air travel tends to be greatest amongst the richer” (European Parliament, 1997). It seems likely that telecommunications services also increase with income. Overall, communication taxation would appear to be in line with vertical equity.	***
Fair contributions	“Telecommunications revenues appear to be correlated with GNP” (EP, 1997). Furthermore, “current statistics suggest that prima facie the incidence of air travel is somewhat uneven as between Member States, but the nature of air travel makes it difficult to interpret these data. A holiday (return) flight from Germany to Greece would show up as a departure from both Member States, but in both cases it would be German residents who paid the tax. Equally, major gateways such as Heathrow, Paris or Amsterdam will record departures by passengers who are from other Member States and often from outside the EU. Interpretation of air traffic figure could be problematic, although the difficulties lend support to the case for <i>not</i> apportioning revenues by Member States”.	***

Overall evaluation	<p>A European communication tax, made up of different components could have some advantages. It would be visible and fare well in terms of equity.</p> <p>On the other hand, practical considerations, such as the difficulty to introduce a set of new EU taxes, and serious budgetary limitations will play against such a tax. Furthermore, some of the stated objectives associated with a communication tax could be better fulfilled with other instruments or alternative EU tax candidates.</p>
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III.7. PERSONAL INCOME TAX

Personal taxes constitute one of the most direct and visible links between taxpayers/citizens and elected authorities. The attraction of an EU personal income tax partly rests on the opportunity to exploit this direct link in order to enhance accountability.

Three main options can be identified:

- The first one would consist of setting a per capita tax on all EU citizens. The annual amount would be about €260 per person in the EU-15 (estimate on the basis of the EU budget in 2003). It would have the advantage of being extremely visible, simple and efficient. On the other hand, it would probably be unacceptable to many people for equity reasons. Considering unsuccessful past experiences, such as with the “poll tax” in the UK, this option is not further discussed here.
- A second option would consist in setting a surcharge on the Member States’ personal income tax. This surcharge would be a percentage of the national tax. This could have the advantage of maintaining the progressiveness of the personal income tax unchanged in the various Member States. However, as Member States’ systems are quite different, it is likely that simply setting an equal surcharge across the Member States would deliver quite *unequitable* results, i.e. with regard to horizontal equity. This is why the surcharge would have to be fine-tuned in order to take national differences into account. A concrete proposal could be based on Biehl (1985, 1990 and 1992). There would be a two-stage procedure for deriving a progressive surcharge on income tax. In the first stage, an overall tax burden would be determined for each Member State, based on its per capita income or other relevant variables. A political decision would have to be taken on the degree of progressiveness of national contributions to the EU budget. In a second stage, the overall tax burden of each Member State would be transformed into a uniform percentage surcharge on national personal income tax payments. The surcharge would be shown on each tax declaration (and each national tax invoice) so that each taxpayer would know her contribution to finance EU expenditure.
- A third option would be to create a separate EU personal income tax, with a specific progressiveness, rebates, etc. Citizens would then have to fill in two tax returns, one for the Member State and one for the EU. This situation would be similar to what happens for instance in Quebec (Canada), where citizens

pay separate taxes for the province and the federal government. However, the administrative and compliance costs in this case would be significant. In this scenario the tax base and the tax rates would be determined at EU level. This tax would be as simple as possible. This would presumably imply a broad base, in combination with low rates and no exemptions (other than a basic personal allowance). Thus, there would be no need to consider other aims of national systems that usually result in complex income tax systems. In view of the otherwise enormous administrative (and political) problems, a harmonised EU income tax would need to be managed by the tax authorities of the Member States. The tax law would be introduced via a Council Regulation for the core elements and Directives for the administrative elements.

In order to simplify the presentation, the assessment below focuses on this last option. Where the assessment of the two options would differ significantly, an explicit mention of this difference is made in order to highlight their respective merits.

Criterion	Assessment of the Harmonised EU Personal income tax	Rating
Sufficiency	The EU personal income tax could yield sufficient revenues to finance completely the EU budget because the tax base is very broad. The personal income tax of Member States represent an estimated average of 10.1% of EU GDP in 2001 (European Commission, 2003). An EU tax equivalent to about 10% of the Member States' tax would thus yield revenues of approximately 1% of EU GDP.	***
Stability	Personal income is correlated with the business cycle. The elasticity of tax revenues with respect to GDP is one on average for 20 OECD countries (OECD, 2000). In the EU, it is lowest in France (0.6) and highest in Greece (2.2). There is no reason to believe that an EU personal income tax would be less stable than Member States' taxes. Actually, being an EU wide tax it could be more stable than national PITs because some of the fluctuations observed in individual Member States could neutralize each other.	***
Visibility	The visibility of the tax would be particularly high, as would the link between the financing of the EU and the good management of resources made available to the budget. Accountability of the EU would undoubtedly be enhanced.	***

<p>Low operating costs</p>	<p>An own and separate EU personal income tax (third option described above) would clearly result in more significant operating cost than a surcharge on a national tax. Even when the tax would be set-up in an extremely simple and standardised form, the necessary tax law and other administrative provisions to be implemented, the administrative set-up and the possible co-ordination with national tax systems would imply significant administration cost. Compliance costs would be increased as well. Furthermore, ensuring that parts of the taxable income, which are not taxed in some Member States (like capital gains in Germany or Belgium) are efficiently and effectively included in the tax base in these Member States or are excluded in the others could lead to serious difficulties. Related to this problem is the question of incentives for Member States to properly assess and collect the EU tax for the Community. If it were completely independent from the national tax system, there would be a very limited interest for Member States to ensure a correct and complete taxation of all national income underlying this tax.</p> <p>It should be noted that these problems would not exist for the second option envisaged above. In a system of national surcharges, operating costs are almost inexistent, as is highlighted by local surcharges observed in several Member States.</p>	<p>*</p> <p>***</p>
<p>Efficient allocation of resources</p>	<p>It is unlikely that a harmonised EU personal income taxation would have any significant impact on the allocation of the tax base, investments, or consumption. This is even more so as national taxes could be decreased as a consequence of the replacement of contributions to the EU by the EU tax.</p>	<p>**</p>
<p>Horizontal equity</p>	<p>Two equivalent taxpayers living in different Member States would have to pay the same tax.</p> <p>This comes in sharp contrast with the second option where surcharges between Member States would be different to take into account variables such as the national average per capita income.</p>	<p>***</p> <p>*</p>
<p>Vertical equity</p>	<p>The harmonised European income tax could be progressive. The progression could notably result from a tax-free basic allowance. However, as it would probably be difficult to include a part of revenues accruing from capital, the income redistribution would mainly bear on labour income.</p>	<p>**</p>
<p>Fair contributions</p>	<p>Being a tax on revenues, the harmonised EU personal income tax would probably allow collection of more receipts in richer countries. Variations linked to the share of labour vs. capital income in the GDP and the differences in wage distributions could be expected but they would be unlikely to modify substantially the fairness of national contributions.</p>	<p>***</p>

Overall evaluation	<p>A harmonised European personal income tax would clearly enhance accountability of the EU. It could also give access to very wide budgetary resources, in a relatively equitable way.</p> <p>Although the system would require some very difficult political discussions to determine a common approach for the tax base, the tax rates, the implementation of tax law and other provisions, and the functioning of the administration, it could prove a sensible way of financing the EU.</p> <p>The main disadvantage of this proposal would be the considerable administrative and compliance costs and the possible mismatches with the national income tax systems.</p> <p>A comparison of the assessments of the harmonised EU personal income tax and a tax based on an EU surcharge on national personal income tax highlights two main differences. While the harmonised EU tax would involve much more compliance and administrative costs than the EU surcharge, it would also fare better in terms of horizontal equity.</p>
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III.8. TAX ON FINANCIAL TRANSACTIONS

Taxing financial transactions on the Stock Exchange Markets in the EU has been mentioned on several occasions.

Concretely the tax could be raised on each transaction of shares and, possibly, bonds. The tax could be based on the value of the transactions, as is or was the case in various stock markets in the EU. The assumption used below is that the tax could be paid by market operators or, more simply, directly by stock market authorities.

Before assessing this tax, various remarks have to be made. It should first be reminded that the introduction of stamp duties or equivalent taxes can have a considerable impact on the localisation of financial markets. It seems for example that creating stamp duties on the New-York stock exchange contributed to the development of the Luxembourg Eurobond market. Therefore, in order to avoid a massive displacement of financial transactions to extra-EU markets, the rates to apply to transactions would have to be fairly limited. It should also be underlined that the proposal may be seen as a potential door opener for the Tobin tax, i.e. a currency transaction tax (see European Commission, 2002). This link may seriously influence and blur the debate on the issue.

Criterion	Assessment of tax on financial transactions	Rating
Sufficiency	The tax could in theory bring substantial revenues. However, the exact amount is highly uncertain and would very much depend on the base and the rates used. It would also crucially depend on the reaction of market operators. In practice, considering the high mobility of the tax base it is likely that the rate of the tax would be very small. This would be in line with the experience in several Member States.	*
Stability	Stock markets activity is very unstable. It depends on many economic, technological and political factors. In addition, tax policies may directly affect the activity of stock markets.	*

Visibility	The tax would be visible to investors and financial market operators. However, a large proportion of the EU citizens would not be really concerned by the tax or to a marginal extent only.	*
Low operating costs	Compliance and administration costs could be fairly limited, since the tax would be paid on an automatic basis to the stock market authorities.	***
Efficient allocation of resources	If the tax is extremely small, it would be possible to avoid major disruptions in the capital markets in the EU. However, it is difficult to define how small the tax should be. Taxes on transactions of shares have been eliminated in Austria (2000), Italy (1998), the Netherlands (1990), Sweden (early 1990s) in order to facilitate the development of local stock markets, while in most other Member States, the rates are a fraction of one % of the value of sales. The sensitivity of financial markets to taxes is such that it has been estimated that an EU tax on the transaction of currencies of 0.10% in the EU might lead to a 83% fall in the volume of transactions (CSF 2001, p.50). In short, even in the case of a small tax, the impact of the tax on the location of capital investments may be substantial.	*
Horizontal equity	In principle, there would be a harmonised tax base. However, the diversity of financial instruments would presumably allow similar investors to face different tax burdens according to their investment strategies.	**
Vertical equity	The tax would affect holders of investments in shares (and possibly in other financial products). This is likely to bear mostly on richer people.	***
Fair contributions	In theory, there is a positive correlation between investments in stocks, the development of capital markets and GDP. However, financial investments also very much depend on other factors not related to GDP. For instance, retirement policies and the existence of pension funds can largely affect the development of financial activities. Furthermore, considering the very high mobility of capital across borders and the increased integration of capital markets, it does not really make sense to identify capital with a specific country anymore. This regional arbitrariness would make it difficult to identify the contribution of Member States to the tax. This could facilitate its political acceptability.	**
Overall evaluation	<p>A tax on financial transactions seems relatively straightforward to implement. It would also fare well on equity grounds.</p> <p>However, it has some major drawbacks. It is likely to disrupt the location of capital and financial investments in the EU. Should the tax be designed in order to avoid this problem, it would have to be so small that it would not bring sufficient revenues to the EU budget. Furthermore, these revenues would be subject to a significant instability and a large degree of uncertainty.</p> <p>Lastly, taxing capital is a very sensitive issue at the political level. Discussions on this proposal could easily be mixed with other debates, such as the possibility of introducing a Tobin tax.</p>	

III.9. CLIMATE CHARGE ON AVIATION

Aviation contributes to climate change, in particular through the emission of the greenhouse gas carbon dioxide (CO₂), of nitrogen oxides (NO_x) leading to ozone

formation and through the formation of “condensation trails” and cirrus clouds. The relative contribution from aviation to global warming is still modest – in 1992 it was about 3.5% - but it is expected to grow significantly in the future. From 1995 to 1999, CO₂-emissions from air transport in the EU increased by an average rate of 5.2 % per year and was thus the fastest growing source of CO₂ emissions. While various events including those of 11th September 2001 have led to reduced growth in recent years, projections suggest that this phenomenon is purely temporary and that aviation will continue to grow rapidly in the future.

Taxation of aviation emissions is therefore sometimes advocated in order to internalise the climate change impact of aviation transport. In the 2001 White Paper on the Common Transport Policy [COM(2001)370], the Commission raised the issue of taxation of aircraft fuel, and stated that “[a]s an additional or alternative solution the Commission proposes, as part of the programme to create the single sky, to introduce differential en route air navigation charges to take account of the environmental impact of aircraft”. Furthermore, in the 6th Environment Action Programme adopted by the Council and the European Parliament on 22 July 2002, the Community decided to identify and undertake “specific actions to reduce greenhouse gas emissions from aviation if no such action is agreed within the International Civil Aviation Organization by 2002”. It has since become clear that the ICAO will not be able to reach consensus on the global implementation of any effective economic instruments to this end in the foreseeable future. Therefore an aviation climate tax or charge could play a useful role in helping to achieve Community environmental objectives, while contributing to the financing of the Union.

Apart from a straightforward fuel tax, several options can be considered for introducing an aviation emission charge or tax in the EU. Some of these are discussed in detail in Wit and Dings (2002). The main elements of a climate charge could be as follows:

- The aviation charge could bear on both CO₂ and NO_x. This would allow for a better incentive structure than options consisting in charging only one of these components. Indeed, for a given level of engine technology there may be a trade-off between CO₂ and NO_x emissions, as generally CO₂ decreases and NO_x increases with increasing engine pressure and temperature. Restricting the incentive base to CO₂ alone may therefore bring with it the risk of sub-optimal shifts towards high-NO_x engines.
- The system could combine *ex ante* and *ex post* calculation of charges. *Ex ante* figures would be based on *performance manuals* and provide charges for specific aircraft on different distances along a standard flight cycle. These would permit not to over-charge a flight delayed by congestion, for instance. However, if they manage to operate their aircraft such that actual emissions are lower than the standard (*ex ante*) profile, operators could supply actual flight data from which to calculate emissions on an *ex post* basis. Such a design would give airlines incentives to fly low-emissions airplanes and to operate them as efficiently as possible.

- Last, the charge could in theory be collected under the Route Charge System of Eurocontrol. However, this would require an agreement among all parties concerned. The emissions charge could be identified and accounted for separately from the current en route charge for air navigation services.

Criterion	Assessment of the EU climate charge on aviation	Rating
Sufficiency	Wit and Dings (2002) estimated the annual revenue arising from the aviation charge to amount to €1-9 billion, depending on the value attributed to each tonne of CO ₂ and NO _x emitted. In a scenario of €30/tonne CO ₂ -equivalent and €3.6/kg NO _x -equivalent, the charge would bring €5.3 bn. This amount has to be compared with an EU budget of slightly less than €100bn in 2003. However, it is important to note that this study did not address the climate change beyond that of CO ₂ and NO _x . Recent EU research [Tradeoff (2004)] suggests that the total climate change effect of aviation is in the range of 2-4 times higher than that of the CO ₂ emissions alone. In the longer run, traffic forecasts generally suggest that the dominance of demand growth rates over efficiency improvement rates will continue to prevail in the future. This in turn will result in continued growth in the potential tax base.	*
Stability	Air transport can be significantly influenced by major events such as the outbreak of wars or events like the ones of September 11, 2001. This makes this potential resource a particularly unstable one in the short run.	*
Visibility	Already today, some airlines have adopted the practice of specifying the contribution of airport taxes to overall ticket prices. It is possible or even likely that airlines would adopt a similar practice if an EU wide climate charge were introduced. If not, such specification could be made mandatory or recommended practice. This would render the climate charge very visible to air transport passengers. However, citizens at large would not be made particularly aware of the 'cost of Europe' through a climate charge on aviation only.	**
Low operating costs	Wit and Dings (2002) conclude that the Eurocontrol infrastructure presently used to collect charges covering the costs of air traffic management (the "Eurocontrol Route Charge System") could be extended and used to administer a climate charge as well. The possibility of using an existing system suggests that operating costs could be kept at a low level.	***
Efficient allocation of resources	The costs relating to the climate change impacts of air transport are currently not reflected in the price seen by users of air transport. This means that the use of air transport and climate change mitigation technology and techniques is not optimal from a socio-economic point of view. Internalising the external costs would contribute to correcting the current market failure and lead to a more efficient allocation of resources and greater overall welfare.	***
Horizontal equity	The climate charge would be applied in a uniform fashion all across the EU. Equal treatment would thus be applied to equivalent consumers.	***
Vertical equity	While the price of air transport has generally decreased in recent years, air transport services are still used more frequently by high-income groups. Applying a climate change charge on aviation would thus be "progressive".	***

Fair contributions	Within a population, consumption of air transport services correlates strongly with income level. Not surprisingly, existing data also suggest a positive correlation with GDP. Furthermore, allocating the revenue from a climate change charge on aviation to the EU budget would be consistent with the international character of much air transport. The existence of a so-called "regional arbitrariness" in the allocation of revenues would also play in favour of an aviation charge at the EU level.	***
Overall evaluation	<p>The climate charge on aviation scores high on most criteria. However, this environmental charge would not bring sufficient or stable revenues to the EU budget. It should thus be a complement to other resources and would probably require having financial autonomy at EU level.</p> <p>The main obstacle for the short term implementation of such a tax is reluctance at political level to employ instruments in the air transport sector that could have impacts on the demand or competitive position of EU carriers. The EU and its Member States would generally prefer a worldwide agreement to take action. This is however unlikely to materialise given the differences in political priorities and views on how to address climate change problems between different ICAO Contracting States.</p>	

IV. COMPARISON AND OVERALL ASSESSMENT

In this section, the various possible EU taxes are compared with regard to each of the eight criteria. Table 1 below summarises the assessment made in the previous section.

IV.1. BUDGETARY CRITERIA

The budgetary criteria are of critical importance in determining the appropriate new European own resource. The stability criterion is important with regard to the financial autonomy of the EU. Sufficiency indicates whether a given resource is sufficient to finance the whole budget.

(i) Sufficiency

Three of the possible EU taxes seem to offer prospects to fully cover the needs of the Community, including in the longer run prospect: the modulated VAT, the personal income tax and energy taxation. Several other resources could bring about substantial revenues but these would probably be insufficient to fully cover the EU needs.

In principle, this problem of revenue insufficiency can be overcome by combining several resources, including contributions from the Member States, to make up for the needs of the EU budget.

(ii) Stability

Four of the nine possible EU taxes – the modulated VAT, energy taxation, personal income tax and excise duties on tobacco and alcohol – would satisfy the criterion of stability.

The other possibilities offer a moderate or limited stability in the short-run, in general due to their sometimes strong link to the business cycle. In the absence of financial autonomy, EU resources could therefore be too limited in years of slow economic growth and could tend to exceed the needs in times of prosperity. Developing a flexibility mechanism on the revenue side to complement tax autonomy could be necessary. This mechanism could consist in either allowing financial autonomy or variable transfers from the Member States to ensure a balanced budget.

Overall, in order to achieve stability, sufficiency and permitting and effective tax autonomy, it might therefore be appropriate to combine taxes with other resources, such as Member States contributions, and envisage a certain degree of financial autonomy.

IV.2. EFFICIENCY CRITERIA

The constraints related to the budgetary framework are of significant importance, as is illustrated above. Nevertheless, the assessment of the EU taxes must also rest on other arguments. In this respect, efficiency criteria are of critical importance.

(i) Visibility

Several of the assessed taxes would respect to a large extent the visibility criterion. This is in particular the case for the modulated VAT and the personal income tax. Only the transfer of seigniorage revenue and the tax on financial transactions would clearly lack visibility to the public at large.

(ii) Low operating costs

In general, the operating costs would not create a major or insurmountable issue, except for one scenario of harmonised personal income tax. In some cases, the tax could lead to an actual improvement upon the current situation or to costs that could be negligible. This is for example the case for the transfer of seigniorage revenue or the corporate income tax.

In some cases, there can be a trade-off between low operating costs and high visibility. This has been illustrated for the proposal on EU excises on alcohol and tobacco. Increasing the visibility of the tax may impose a cost on the seller or the consumer.

(iii) Efficient allocation of resources

Corporate income tax, energy taxation and a climate charge on aviation could have an impact on, and help foster EU policies. This is due to the numerous cross-border externalities observed in the related areas. Furthermore, in the case of the transfer of seigniorage revenue, the tax could probably be raised in a fairly efficient, non-distortive way.

In most other cases the tax should be seen as an instrument to raise revenues rather than as an instrument to achieve Community policies. However, in the case of the tax on financial transactions and the communication tax, the tax could prove detrimental to the proper allocation of capital and investment in the EU.

IV.3. EQUITY CRITERIA

The economic assessment of the assignment of a tax to a given level of government also very much depends on equity issues.

(i) Horizontal equity

The horizontal equity primarily depends on the degree of harmonisation of the tax base. Where there is full harmonisation, horizontal equity is achieved, while in the other cases, one should expect equivalent EU citizens to be taxed in different ways.

It has been assumed in a number of cases that harmonisation would be achieved. Therefore, most taxes examined above accordingly respect to a high degree the criterion. However, it is far from obvious that actual harmonisation would be achieved in some cases. This is for instance illustrated by the failure to complete harmonisation for the VAT in the Community despite decades of efforts. The current degree of harmonisation offers limited indications on the level of harmonisation that could be reached in the future, e.g. for the personal income tax.

(ii) Vertical equity

Vertical equity is also a major issue when it comes to designing a tax structure. In general, priority is given to a tax system that allows for some kind of inter-personal redistribution.

In this respect, the communication taxation, the tax on financial transactions and the climate charge on aviation, which would be new EU taxes, would respect the criterion to a large extent. Indeed, these taxes would mainly be a burden on relatively wealthy people and the revenues raised would allow for a corresponding decline in Member States contributions and taxes. A number of

other taxes would also respect this criterion, albeit to a lower extent. Only excise duties on tobacco and alcohol would bear to a relatively large extent on poorer households, thereby possibly decreasing the overall progressiveness of taxation in the EU.

(iii) Fair contributions

The criterion would be respected to a large extent for the communication taxation, the personal income tax and the climate charge on aviation. The other taxes would in all likelihood not fully respect this criterion. This would in particular be the case for excise duties on alcohol or tobacco. This means that should these taxes be the main source of finance of the EU budget the revenue collected in some of the Member States would be relatively high considering their level of economic development compared to other Member States. This result is not surprising given the diversity characterising the economic and tax structures of the Member States.

It should be noted that a possible solution to unequal distributions of the tax base would be to set up some form of equalisation mechanism to adjust the Member States' contributions according to the amount of tax collected on their territory and other relevant variables. Equalisation mechanisms are found in numerous federal systems, as well as in decentralised States. They are inherent to State structure when there are differences in needs and resources across "regions". Setting an equalisation mechanism to replace or complement the current GNI contribution could thus be a useful complement to tax autonomy in the context of a reform of the current own resource system.

V. CONCLUSIONS

The assessment of a number of taxes according to the criteria presented in this study has to be considered a preliminary and partial analysis. A more refined examination would be required of the options considered above, notably with regard to their budgetary and distributional implications, in the case of a political decision to create an EU tax.

One of the main conclusions that can be drawn from this multi-criteria analysis is that there is no such thing as a perfect tax for the EU. All the main candidates for EU taxes that have been envisaged over the last few years have some pros and some cons. They perform well according to some criteria and less well according to others.

The inability of potential EU taxes to meet fully certain criteria should not lead to the conclusion that they should all be dismissed, as has sometimes been argued in the past. On the contrary, the analysis presented here highlights the fact that the choice between one or several EU taxes would critically depend on a political choice as to which criteria should be considered essential and which secondary.

Furthermore, a discussion on the financing of the budget should not only consist of debating the merits of the various taxes according to the criteria presented above. It should also assess the new financing system that would result from the application of one (or several) taxes at EU level, compared with the existing system which is characterized by (mainly) direct transfers from the Member States. Whereas the current system offers the advantage of bringing stable and sufficient resources to the EU budget, in a way that respects horizontal equity, it also presents major drawbacks, such as a complete lack of visibility and limited links to EU policies. Whether this system should be preferred to an alternative system is also a matter of political priorities.

In short, there is no simple solution to a complex question. The technical arguments presented here can, at best, underline the costs and benefits of various options. But the EU financing system must ultimately be determined on a political basis, taking into account these technical arguments.

Table 1 : Evaluation of EU taxes with respect to the criteria

Proposed EU tax	Budgetary criteria		Efficiency criteria				Equity criteria		
	Sufficiency	Stability	Visibility	Low operating costs	Efficient allocation of resources	Horizontal equity	Vertical equity	Fair contributions	
Modulated VAT	***	***	***	***	**	***	**	**	
Corporate income tax	**	*	**	**	***	***	**	**	
Energy taxation	***	***	**	***	***	***	**(*)	**	
Excise duties on Tobacco and alcohol	**	***	**	**	**	***	*	*	
Transfer of seigniorage revenue	*	**	*	***	***	***	**	**	
Communication tax	*	**	**	**	*	***	***	***	
Personal income tax	***	***	***	*/***	**	***/*	**	***	
Tax on financial transactions	*	*	*	***	*	**	***	**	
Climate charge on aviation	*	*	**	***	***	***	***	***	

Notes :

An increasing number of stars indicates increasing arguments in favour of the proposal with regard to the criterion under examination.

* the criterion is not respected. Many problems arise as to the criterion;

** the criterion is respected in part. Important problems may arise;

*** the criterion is largely respected. Some limited problems may still arise.

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