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# Why and How should the EU budget be reformed?

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## 1 The EU budget, an historical relic?

If there is one subject that has been thoroughly explored for many years it is the EU's finances. Institutional actors, like the Commission or the European Parliament, or many academic experts have all provided valuable and largely converging "diagnoses" on the "weaknesses" of the EU budget. These could be summarised as follows: *"As it stands today, the EU budget is a historical relic. Expenditures, revenues and procedures are all inconsistent with the present and future state of EU integration. Half its spending goes on supporting a sector whose economic significance is declining, little is used to provide economic or non-economic public goods typically featuring large economies of scale, while convergence policy is very dispersed across EU countries and is not focused regarding the activities it should support"* [1].

### 1.1 Weak link with the taxpayer, financial deals and net calculations[2]

Unlike the European Coal and Steel Treaty (ECSC) which was financed through levies on the production of coal and steel paid directly by producing companies (hence by a real Community tax), the European Economic Community (EEC) budget (like the Euratom budget) was initially financed by a system of contribution scales by Member State. However, the EEC Treaty of 1957 had foreseen the possibility of replacing national contributions by own resources. In 1965, the Commission presented a global package of measures aimed at establishing a link between financing the common agricultural policy, raising independent revenue for the Community and wider budgetary powers for the European Parliament. Not only did the Commission propose a gradual transfer of the customs duties and agricultural levies to the EU budget, it also proposed to allow the European Parliament (once directly elected) to create independent sources of revenue for the Community. Thus, the Member States' veto right would have disappeared. Although the Commission's proposals were not accepted in the end, concrete expectations were still raised by the own resources decision of 1970 [3]. This decision established not only the principle that *"the Communities shall be allocated resources of their own"*, but also that *"from 1 January 1975 the budget of the Communities shall, irrespective of other revenue, be financed entirely from the Communities' own resources"* .

The expression "own resources" suggests more than it actually means, because the EU lacks a genuine financial autonomy. The practice has evolved in such a way that the adjective "own" before resources has become somewhat misleading, as it merely indicates the Member States' obligation to finance the budget, not the autonomy of the EU to fix and to manage its financial resources.

Own resources are not to be equated with EU financial autonomy[4]. Indeed, there is an indirect link with the taxpayer for the so-called "traditional own resources" (agricultural levies and

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[1] See Sapir et al. (2003), p. 172.

2 This section briefly summarizes the analysis made in Cipriani-Marè (2007) and Cipriani (2010).

[3] Council Decision 70/243/ECSC, EEC, Euratom of 21 April 1970 on the replacement of financial contributions from Member States by the Communities' own resources.

[4] The following definition of "own resources" is given by a working document of the European Parliament on the European Communities own resources: *"Own resources can be taken to mean a source of finance separate and independent of the Member States, some kind of tax revenue assigned once and for all to the Community to fund its budget and due to it by right without the need for any subsequent decision by the national authorities. The Member States, then, would be required to make payments available to the Community for its budget"* (see the annexes to the explanatory statement of the Lamassoure Report of 13.3.2007 (A6-0066/2007), working document No 1, p. 20).

customs duties). Such a link does not exist at all for the Gross National Income[5] (GNI)-based resource. The same applies to the VAT resource. Though potentially fulfilling the characteristic of *"revenue accruing from other charges introduced within the framework of a common policy"*[6], the VAT resource has been simply transformed in such a way as to produce a financial contribution, which is directly at odds with the initial objective[7]. Moreover, since 1988 the VAT assessment basis is capped at 50% (initially 55%) of the GNI. As a consequence, the VAT-based own resource was turned into a GNI-based resource for the numerous countries concerned by the capping rule (11 Member States in 2007). Thus, around 76 % of EU revenue is directly or indirectly based on GNI, therefore on national contributions. As shown in table 1, the weight of VAT as a source of revenue for the EU budget has dramatically fallen, moving from around 60% in the 1988 to the less than 10 % after 2010. In the same period, also the other traditional own resources have lost of importance, reaching in the last years slightly more than 10 %. The GNP/GNI-based resource has instead dramatically risen and it is now around 75% of the total revenue – se also figure 1. In table 2 a breakdown by type of revenue is shown from the last financial perspective 2014-2020. There is a small increase in the role of VAT and custom duties within the budget and a corresponding reduction of the percentage provided by the GNI-based resources.

As the Commission points out, *"The present financing system has ensured a smooth financing of the EU budget. However, in its present form the financing system lacks a direct link to citizens (…). The budgetary consequences of the Union's policies thus remain impalpable to the general public. With the overwhelming weight of the GNI resource, Member States, and in particular net contributors, tend to judge EU policies and initiatives exclusively in terms of their national allocation and with little regard to the substance of policies, with the risk of obscuring the added value of EU policies"* [8].

The history of EU finances is full of examples where specific arrangements have been introduced to accommodate the claims of one Member State or the other, the "UK rebate" being just the best known. Each new "Financial Perspective" deal provides the opportunity to include specific "adjustments" to both revenue and expenditure. The consequence is a system that suffers from instability and is not applicable to all Member States in the same way.

[5] GNI is equal to Gross Domestic Product (GDP) minus primary income payable by resident units to non-resident units, plus primary income receivable by resident units from the rest of the world. The GNI and GDP aggregates form part of the definitions laid down in the European System of Integrated Economic Accounts (ESA 95) adopted by Council Regulation (EC) No 2223/96. The GNI version used for own resources purposes excludes the subdivision of Financial Intermediation Services Indirectly Measured (FISIMs). This is so even though it is broadly recognised that more accurate GDP levels could be obtained as GDP would include the entire value added generated by financial intermediaries. It has been estimated that the impact of allocating FISIM to GDP (and GNI) would correspond to an increase of 1.3% (weighed average of the countries), a value close to the overall EU budget. It should be stressed, however, that this increase is different from Member State to Member State. Including FISIMs in the GDP would inevitably represent a potential change in the allocation key of the GNI resource.

[6] This was the criterion set by the Decision of 21 April 1970 (Article 2) to identify resources other than agricultural levies, sugar levies and customs duties.

[7] The determination of the assessment base for the VAT resource is calculated by dividing net VAT receipts by the "weighted average rate" of VAT. This "intermediate" base had to be subsequently adjusted, with negative or positive compensations, in order to obtain a harmonised VAT base corresponding to the provisions in the Sixth Directive of 17.5.1977. The "weighted average rate" depends on statistical calculations to take account of the different VAT rates applicable to the various categories of taxable goods and services. Hence, this calculation reconstructs a fictitious tax distinct from that actually paid by consumers in the various Member States.

[8] European Commission - Financing the European Union, COM (2004) 505 final of 14.7.2004, Volume I, p. 8.

Here are some examples of corrections and derogations on the revenue side.

- As of 2001, the percentage of collection costs refunded to Member States in return for collecting the so-called traditional own resources (customs duties) was increased from 10% to 25%. Although of general application, this measure was intended to lighten the contributions to the EU budget of some Member States [9].
- In the framework of the 2007-2013 financial perspective agreement, the European Council concluded that four countries should benefit from reduced rates of call of the VAT resource to reduce their respective budgetary burden. Thus, during the 2007-2013 period the rate of call of the VAT resource for Austria was fixed at 0.225 %, for Germany at 0.15 % and for the Netherlands and Sweden at 0.10 %.
- Again to reduce the budgetary burden for these countries, the European Council also concluded that for the period 2007-2013 the Netherlands shall benefit from a gross annual reduction in its GNI contribution of € 605 million and Sweden from a gross annual reduction in its GNI contribution of € 150 million.
- Because of the enlargement, the "UK rebate" was expected to rise considerably[10]. The United Kingdom finally agreed to reduce the impact of the rebate by € 10.5 billion for the period 2007-2013 [11]. This will mean however that the United Kingdom will not participate in the financing of the costs of enlargement related to agriculture and will only fully participate in other enlargement-related expenditure after a phasing-in period between 2009 and 2011.
- In principle, the cost of the "UK rebate" is to be borne by the other Member States through a corresponding increase in their contributions to the EU budget. However, since the entry into force of the rebate, in 1986, Germany has been allowed to pay only two thirds of its normal share, the balance being divided between the other Member States on the same scale. As of 1.1.2002, the European Council again altered the scale for financing the "UK rebate", by reducing the share paid by Germany, the Netherlands, Austria and Sweden to a quarter of what it ought to be. Consequently, these reductions are again made up by all the other Member States [12].

As a result, in the 2007 EU budget, exceptions on the revenue side (including "capping" of the VAT resource base at a percentage of its GDP) are applied in one way or another to no less than 16 Member States. On the expenditure side, the European Council of December 2005 provided the opportunity to grant to a number of regions, for different reasons, 27 supplementary "envelopes" totalling € 11.2 billion.

The European Parliament has observed that the *"numerous exceptions on the revenue side and its compensation gifts to certain Member States on the expenditure side, is the clearest proof of the complete failure of the current system"*[13]. The evolution of the EU budget financing shows that, contrary to the expectations of the EEC Treaty, the system has not

[9] The main beneficiaries of this increase are Germany, the United Kingdom and the Netherlands. Between 1992 and 2005, they have collected together, on average, 58 % of all custom duties. In 2005 they received some € 2,2 billion as collection costs, plus interest, penalties and late interest charged to the debtors.

[10] As the "UK rebate" is based on the UK share in total EU expenditure (in the Member States), any increase in the expenditure (in other Member States) has the effect of increasing simultaneously the volume of the "UK rebate". The Commission estimated that if the correction mechanism had remained unchanged, the UK rebate" would have increased during the period 2007-2013 by almost 50%, from € 5 to 7 billion.

[11] The abatement is thus expected to rise from around € 5 billion/year to approximately € 6 billion averaged over 2007-2013. This amount will, furthermore, be adjusted upwards in case of further enlargement before 2013, except for the accession of Romania and Bulgaria.

[12] As a result, in 2007, Germany bears only 6% of the rebate and France, Italy and Spain together more than 60 %.

[13] European Parliament – Resolution on the future of the European Union's own resources, 29.3.2007, paragraph 6.

evolved from a system of national contributions towards one of genuine EU own resources. Due to the different exceptions and specific arrangements introduced over the years, the system is in reality the outcome of merely intergovernmental deals which tend to overwhelm other policy-oriented considerations. There is no explicit link between funds, policies and objectives, an intervention logic describing how programmes are expected to attain their global objectives.

Each financial perspective constitutes a mixture of allocational, redistributive and stabilising measures in a context where the unanimous agreement of the Member States is required. Indeed, each time reaching an agreement is a lengthy enterprise. It took almost two years to agree on the current 2007-2013 financial perspective: four different Presidencies of the Council have dealt with this sensitive issue. A flavour of this is given by the Council document containing the last (and finally adopted) proposal. The document states that the proposal consists of three parts (Expenditure, Revenue, Review) considered *"complementary and inseparable. This means that the principle of nothing is agreed until everything is agreed continues to apply"* [14].

# 2 A Budget for Europe: Who, Where and What?

## 2.1 Drawbacks and Issues of the Current EU budget

### *2.1.1 The size of the federal budgets*

If we compare the European budget with those of federal countries, many asymmetries tend to emerge. First of all, there is the issue of the size. In the United States, federal tax revenue as a percentage of GDP, averaged 15.3 and federal expenditure 24.0 between 2009 and 2012 – the gap being filled through borrowing. In Australia income taxes are the most significant form of taxation and are collected by the federal government. Good and Service Tax revenue is also collected by the Federal government, and then paid to the states under a distribution formula determined by the Commonwealth Grants Commission. Local governments are funded largely by taxes on land value, on residential, industrial and commercial properties. Australia maintains a relatively low tax burden in comparison with other wealthy, developed nations, at 25.6% of GDP in 2013. In the Federal Republic of Germany, total federal tax revenue approximates 10% of GDP. Borrowing is well within the EU treaty limits and is projected to go down to zero beginning in 2015.

To give an idea of how small the current EU budget is, the table 4 shows the size of European total general government expenditures, and the size of the budget of some major federal countries. As it is evident, in most countries public budgets are quite considerable, both in terms of total federal expenditure and tax revenue.

Apart from its size, the EU budget is quite rigid and inflexible, as shown in the previous section[15].

[14] European Council, document No 1595/05 of 19.12.2005.

[15] We do not discuss here reasons and possible benefits of a EU public goods budget – the spillovers for the entire area – nor what these might be. See, among others, Tabellini (2002), Goulard-Nava (2002), Buti-Nava (2003), Cipriani-Marè (2004), Begg (2005), Lefebvre (2005), Gros-Micossi (2005). Copenaghen Economics (2011) made a systematic public economics analysis in a recent report while a more political proposal is suggested by Bonino-de Andreis (2011).

*2.1.2 The structure of revenue*

In recent years, the system of revenue financing has dramatically changed. In Table 1 we show the different weight of TOR (traditional own resources – essentially custom duties), VAT and GNP/GNI resource as a % of the total revenue from 1970 to 2010. Traditional own resources (TOR) have declined from less than 39% to around 13% of the total budget. Revenue from VAT has also dramatically fallen in the period considered, plummeting from 59% in 1988 to 13% in 2004 and to a mere 10% in 2011. The weight of GNP/GNI resource has instead strongly increased, from its level of 21% in 1995, to an astonishing 65% of total revenue in 2004 and to more than 75% in 2013 – a share substantially confirmed by the financial perspectives for 2014-2020, see also figure 1 – even if the 2014 budget envisages a small reduction to 73.6%

The increase in national contributions tends to change the nature of the EU budget, moving it away from a nation-state budget with tax-based own resources and making it similar to an international organization budget, typically based on national contributions such as the UN's. This means that budget resources are not automatically collected but decided each time by member countries in a fully discretional way. This is contrary to the basic principles and spirit of the then EEC and now EU; moreover, as far as the role of national contributions is increasing, the disagreement on net balance calculations will also increase, fostering the logic of 'juste retour' on the European setting. A rising role of the fourth resource will force governments to focus on a simple logic of net balance, to look to the 'credit and debit' structure.

*2.1.3 Net Balance Calculations*

More importantly, the computation of net balances raises many doubts in economic terms. Net balance calculations are usually estimated by taking the nominal amount of expenditure transferred to each member country. But it is easy to understand that this is quite different than to assess the real incidence of the expenditure. In fact, net balances, by considering only the nominal destination of the expenditure, and not its final impact, give a picture of real beneficiaries that tends to be quite misleading. The map of benefits resulting from the European budget is rather incomplete. In fact, the concept of net balance disregards the fact that direct expenditure in favour of a member state can have significant effects on other member states' economies – as well as on non-EU ones: the single market and the high openness of national economies would lead to substantial spillovers – which in the end will translate into imports, therefore benefiting countries with a positive external balance[16].

By using an input-output methodology, an official study[17] has carried out a new estimate of the real and final effect of the Community expenditure on member states. The picture that comes out is quite divergent from the nominal allocation of various spending items and the final incidence of EU budget resources in geographic terms tend to be quite different. Therefore, the net balance approach would conduce in the end, if performed correctly, to very surprisingly results.

## 2.2 The allocation of functions in a multilevel Europe

The analysis of the allocation of functions in a multilevel Europe can fruitfully start from the lesson of the fiscal federalism theory. This theory can give many useful insights to the existing

[16] See Cipriani-Marè (2003).
[17] Cipriani-Pisani (2004).

European effort to review the current allocation of functions between the European Union and member states. Although this theory has been developed in quite different contexts from the present European one, it can be helpful in providing guidelines for the future European construction[18].

The conventional wisdom – the conclusion of the traditional fiscal federalism theory – argues that the functions of redistribution and stabilization should be attributed to the central level of government, while the function of allocation, in particular in the case of impure or local public goods[19] should be transferred to sub central level, namely national governments.

However, this theory has always been referred to federal countries and has been applied in federalist contexts while the current European Union is quite far from this dimension. Moreover, fiscal federalism is per se a static theory that stems from mature federations, while the present-day EU needs a dynamic, flexible approach that may guide the institutional process and the economic building. The design of competence allocation in a well-settled, mature federation, it is quite an easy task, while finding the right mix of competence distribution in an evolving process, from an economic union to a quasi-federal entity, is a different and daunting issue.

What the European Union needs is a simple but sound rule which can help in its building process and in revising the distribution of government responsibilities among the central tier and the national ones along the road of European integration. Of course, this does not imply that the path has been definitely charted and that we are bound to move to a federal dimension. Even better, recent institutional developments seems to show that the European Union can even remain a single market or a simple economic union; but a flexible blueprint is needed.

## 3. What Consumption Tax in a Multilevel Framework?

### 3.1 Bringing the EU closer to European population

A strong increase in the degree of transparency of European public finances would help to avoid recurrent crisis and bring the Union closer to European population; most of all, it might reveal the true intentions of European governments on Europe's future. A way of moving far from egoism and 'juste retour' approach and to step in for the building of a new Europe.

The composition of revenue has to be changed. National contributions that foster egoism and lessen solidarity must be reduced and scaled down and a new base for a European tax has to be found. This tax has to put into a closer connection the EU to the European citizens and increase people awareness of costs and benefits of Europe. The real issue of nowadays Europe is not that there is too much, but that there is too little Europe. The original plan to start from a single currency to develop a more federal Europe has proved to be inconsistent and not successful. We have to match the ECB with a European Minister of Economy and Finance.

[18] See on the theory of fiscal federalism Musgrave (1959, 1969), Musgrave-Musgrave (1973), Oates (1968, 1972) and Olson (1969). A more recent discussion is in Oates (1999, 2002) von Hagen (2002). In the European context this approach was explicitly adopted by the MacDougall Report in 1977, which suggested a new assignment of functions between states and the European Commission and a strong increase in the size of the Union budget.

[19] The supply of local, or club, goods should be given to local governments so as to make sure that the benefit – or correspondence – principle be assured.

The share of tax-based own resources in the total budget has to be increased. The reform of the financing system should be based on a tax that explicitly aims at financing the European institutions and their budget and at removing the main pitfalls of the current system, i.e. the absence of a direct link with EU citizens.

We do not have to go that far to find a '*new fiscal resource'* for the EU. Current VAT has already a sufficient tax base harmonization. The existence of regional arbitrariness or the presence of cross-border externalities are strong arguments for assigning a part or all of the corresponding tax revenue to the EU level[20]. However, given the current working of VAT, the definition of a new tax resource for the budget, "*imply a decision on sharing either revenue or tax rates between the national and the EU level",* which nevertheless should finance half of the budget[21]. The current GNI-based resource will remain as the residual balancing resource. The merit of VAT, as a new fiscal resource, is that it would allow to replace the 'statistical VAT' – i.e., the current way of calculating the VAT tax base for the European budget by national administrations – with the real working of the tax – i.e., the tax returns.

### 3.2 Tax Assignment and Inter-jurisdictional Coordination of Sales Taxes

As suggested by Musgrave[22], in the allocation of taxing and auditing powers among lower-level governments, in mature federations and in pre-federal entities and economic unions, the key issue is: *'Who Should Tax, Where and What?*'

But "Who should tax what?" does not give a full account of the tax assignment problem. As suggested by McLure (2001) we must add "and how?" To fully address the tax assignment problem we have to answer five questions: "a) which level of government gets the revenue from a particular tax; 2) which level chooses the taxes that a given level imposes; 3) which defines the tax bases; 4) which sets tax rates; and 5) which administers the various taxes. Where subnational governments lack control over all these decisions—but especially control over tax rates—there will be *vertical fiscal imbalance*, even if subnational revenues are adequate to meet expenditure needs. Tax assignment is not so much about the overall adequacy of revenue as about control over marginal sources of revenue"[23].

It is clear that, from the onset of the federalist experience, tax assignment is not a static choice, but somewhat 'a moving target'. "There may be a tendency to believe that proper tax assignment can be described, once and for all, as based on first principles. In fact, this is not true, because knowledge of both tax technology and the effects of taxation change and because economies evolve"[24]. The conventional wisdom about tax assignment may change

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[20] See European Commission (2004).

[21] For example, the EU share could be levied "as part of the national rate paid by taxpayers. The total EU budget, anyway limited by the own resources ceiling to a maximum of 1.24% of EU-GNI, would not increase, as revenue from the tax-based resource would be offset by a corresponding decrease of the current GNI-based resource", European Commission (2004).

22 Musgrave (1983). See also Musgrave (1959, 1969), Musgrave-Musgrave (1973), Oates (1968, 1972, 1977a, 1977b, 1999, 2002), King (1984), Bird (1989, 1999), McLure (1993, 2000b, 2001).

23 Bird (1999) wrote "meaningful tax assignment refers to the assignment of the ability (and responsibility) to determine own revenues in some meaningful way. Subnational governments may be fully financed from what they (and others) may consider their "own" taxes. But if, as is often the case in developing countries, they cannot decide which taxes they levy, what the tax bases are, what rates are imposed, or how intensively taxes are enforced they actually have no control at all over revenues and hence have really been "assigned" no revenue power at the margin—though perhaps much revenue. The single most critical variable from this perspective is control over the effective tax rate.

24 See McLure (2001).

with the growth of knowledge: economic and political progress may alter what we believe can be a proper or efficient tax assignment. So the issue needs to be defined and redefined according to historical development and the different constitutional and administrative structure of various countries at different times, as well as to the economic and public finance conditions and some political economy considerations.

However, when one has to decide how to subdivide the power to tax in a multilevel government context – both federal and unitary – a very important issue is the possible forms of vertical coordination of sales taxation; that is to say, how to allocate the taxing power among the different levels of government, what sales tax is better to use, how to assign the tax revenue[25] - or eventually, what sharing formula might be used – and finally how to set rates and bases. In Table 5, we present the 9 possible options available, including the case of no taxation, for the two most important levels of government, the federal/national and the state[26]. We limit our analysis only to the two superior – and from an economic point of view, identical – forms of consumption taxes: the VAT and the retail sales tax (RST)[27], and we do not consider other lower levels of government[28].

Disregarding the case of no taxation – cell 9 – the first two interesting options are those situated along the principal diagonal (1 and 5), i.e., the case of a dual VAT and a dual RST. In recent years, some cases of a dual VAT solution have emerged: most of them have been using the same tax bases for the two levels of government, while rates applied have diverged in some cases. The dual RST is up to now only a theoretical option, although it has been considered in the economic debate in the US as a possible form of a joint federal-state tax on consumption. The most appealing case is instead, as we discuss more in detail in the following section, the option 2 (VAT + RST), even if some interesting and positive suggestions come from the case 8 (RST at the state level). Option 2 is perhaps the best practical solution for the EU and it is puzzling that the European Commission has substantially disregarded it, notwithstanding some growing consensus in the academic circles. Option 8 is the US' way of taxing consumption. While, being realistic, there is no chance now in Europe to use this form of consumption tax, the debate on reforming European VAT should seriously consider the lessons and the positive – we may also say 'federal' – properties of the single stage way of taxing consumption. Finally, option 7, a state VAT, is the solution currently used in the European Union, where a form of taxation by the federal level is still not contemplated in the

25 A good discussion of these aspects is made by Bird (1989), Burgess-Howes-Stern (1995), Bird-Gendron (1998).

26 With 'state' we mean the intermediate or sub-national level of government, not the various forms of local governments, even if as it well known, many local governments largely use and rely on some forms of general and specific sales taxes.

27 We do not examine here the other possible forms of VAT – for example, all the variants of the VAT income-type, etc. – or other forms of single stage taxation, such as, the producer tax – like the manufacturer tax, previously existing in Canada – or the tax on the wholesaler – as with the British wholesale tax.

28 Of course, consumption taxes can also be designed and implemented by lower levels of government, such as provinces and communes or local districts. In the ancient Rome, but also in the present time, we have had good examples of consumption taxes and duties collected at a very low level of government. Of course, the lower the level at which the consumption tax is levied, the bigger the problems we may face in terms of cross border-shopping and trade distortions. The argument that a certain or limited degree of cross-border shopping will be always damaging efficiency is however quite far from being settled in theoretical and empirical terms. In fact, in general terms all taxes tend to produce some cross-border shopping and a partial bases and revenue reallocation – take for example, the tax exporting that emerges from some form of local business and company taxation. The real question is not to ask 'how much tax harmonization should we expect to realize', rather 'how much tax diversity can we allow' without hampering the functioning of the single market, or so as to avoid tax distortions and economic inefficiency. See on this Cnossen (1998, 2002) and Sinn (1993).

near future. The European Union should look for in this menu what might be the best possible combination of consumption taxes for the political and economic future of the Union. We believe that current VATs at the state level may and should be improved with some reform of the tax design.

### 3.3 The use of consumption taxes at national and intermediate level in federal and unitary countries[29]

In Table 6 and in the Appendix we show the current situation in the most important federal countries and in the EU. Countries with the oldest federal tradition, such as the United States, Canada but also India and Brazil, have used forms of sales taxes relatively different to those used in the European Union – and the same also applies in part for Argentina. The United States makes use of a retail sales tax at the state level, without levying any form of tax at federal level, but imposing various kind of local sales taxes. Canada is instead using different forms of VAT by both levels of government, and in some provinces a federal VAT is coupled with a retail sales tax. India has recently introduced a state VAT that operates together with a federal VAT and the same applies also in Brazil – the federal VATs in both countries are not levied on a comprehensive base and states' VATs are working with an origin-based system. Germany and Austria have made recourse to VAT, even if with a central management; the tax is then paid back to the Länder or regions with a tax sharing mechanism based on some criteria such as consumption base, population, and the like; the same does not occur in Switzerland and Belgium, where the revenue remain at the federal level and the states' autonomy is practically insignificant, and in Australia, where although there is not a state sales tax, all the revenue of the federal VAT goes to states. Finally, the European Union does not have any federal tax on consumption and existing VATs are levied only at the state level. In a similar context, we also find Mexico which applies however a different criterion from the EU in taxing interstate trade.

In Table 7 we account for all the various experiences in taxing consumption and sales for major federal countries. Most countries decided to adopt some form of federal VAT even if not always coupled with a specific sales tax at the state/regional level – even a VAT or a retail sales tax. In the third column we show how the tax revenue is in the end allocated among the various level of government and the type of state/region tax used by this intermediate level of government. With the only exception of the United States and India, most federal countries have adopted in the last twenty years a form of federal VAT. Canada is the most interesting experience, where an original mix of federal sales tax (VAT) and state sales tax (VAT + RST) has been implemented. Some countries use together with a federal tax also a state sales tax, which is in most cases a VAT – the most notable exception are Australia (no state tax) and the European federal countries (Germany, Belgium, Austria, Switzerland with only a federal VAT and no state tax). A particular case is that of the European Union, where no tax is applied at the federal level and the European VAT is only levied at the state level. It is therefore clear that the European Union shows on sales taxation an explicit asymmetry when compared with other major federal countries.

### 3.4 Taxing Consumption at the State Level

Real options states might have to tax consumption in a federal context are a quite neglected matter, both in theoretical and empirical literature. This is particularly true in the European Union and by and large in European studies. There is a sort of irony here given that these

[29] In this work we limit our analysis only to the most important federal countries.

options have been one of the most crucial issues in federal countries[30]. But probably this is also the explanation of the paradox! In fact, a true road to fiscal federalism has never been seriously carried out and genuinely performed in Europe, both by European institutions and particularly by the founding countries of the EC[31]. *Tout comptes fait*, what could be the reason to discuss the advantages of a fiscal federalism's agenda for Europe – the coordination of the federal and state taxation – if the road chosen is rather different?

In abstract terms, with regard to sales taxes, there are 4 possible general options for the states – see table 12: 1) a national sales tax with a revenue sharing mechanism; 2) an origin-based tax, with two possible sub-options, a VAT with uniform or variable rates; 3) a destination-based tax, such as a retail sales tax or a VAT with the same sub-options of uniform and variable rates; 4) finally, a joint federal-state tax (a dual VAT)[32].

Option 1 could be considered as the simplest way of taxing consumption for states within a multitier government. In this option, the tax is imposed at a uniform rate across the nation, and the interstate trade of goods does not require any special adjustment. The tax revenue collected, both directly by the federal government or states, is then shared between them on the basis of some formula of apportionment – for example, final consumption, population, etc. Germany and Austria extensively use this type of arrangement in the working of VAT. Notwithstanding its simplicity, this option removes any fiscal autonomy for the intermediate levels of government in defining and levying tax rates and bases; for this reasons, it does not seem to be the best option for a federation where the states' power is crucial – e.g., the EU in its current stage of development.

Option 2 uses the origin principle on inter-states sales, not the destination. The solution for granting states a large room of manoeuvre in managing different rates raises many issues: first, the presence of multiple rates with the origin principle tends to produce a misallocation of resources and business activities. Trade and location of production activities would be affected, while the system of revenue collection and compensation would be very difficult to manage for tax administration[33]. On the other hand, the other sub-option of a VAT with a uniform rate would ease the economic negative effects[34] but would abolish states autonomy

[30] A noteworthy exception is Poddar (1990, 104) who wrote, "When state governments impose general indirect taxes, they use a single-stage retail sales tax. […] It is generally believed that without such frontiers state VATs would need to be based on the origin principle (as opposed to the destination principle) for interstate sales. An origin-based VAT could, however, distort the location of economic activity unless the tax was imposed at a uniform rate in all the states".

[31] A brilliant exception is the MacDougall Report (1977) where a public finance agenda for Europe was set up. The Report suggested many good proposals to improve the working of the EU public finance: among the various proposals, it is important to stress the reform of the European budget, with a new financing mechanism based on VAT, and the discussion of the possible candidates of a European tax – a European corporate tax, a common VAT, a tax on energy and not renewable resources, some environmental taxes, etc..

[32] The analysis is based on Poddar (1990). See also Bird-Gendron (1998, 2001).

[33] Multiple rates would induce business and firms to locate their activities in states with the lowest tax rate; in the same time, other strategic behaviors would be possible: e.g., importers would change their shipments so that "the initial point of entry would be the state with the lowest rate", or again the different rates would encourage activities such as "direct shopping in low-tax jurisdictions and sales through mail order" (Poddar, 1990, p. 107). Moreover, as discussed below, the equivalence theorem demonstrates the similarity between the origin and the destination principle but this identity is based on assumption which do not exist in real world, and particularly in the nowadays EU: perfect flexible exchange rates, full flexible prices, immobile factors of productions and balanced trade!

[34] This is not at all evident given that if VAT rates were identical across the states, then "it could be argued that firms would have no incentive to misstate the values. […][But] even if firms were indifferent about the division of tax base among states, the *states would not be*" (emph. add.) (Poddar, 1990, 106).

and leave unaffected the issue of the revenue redistribution among the Member States. Moreover, a uniform rate is not politically achievable in the current situation. Finally, the origin principle would not allow the flow of tax revenue to be assigned to the state where final consumption takes place.

Option 3 is based on the destination principle and the solutions of a Retail Sales Tax or a VAT. Both of them let the final revenue from sales taxation go to the jurisdictions where final consumption of goods and services takes place. It is clear that, from the economic point of view, the destination-based taxes meet the criteria of economic neutrality and fiscal autonomy[35.] However RST and VAT have very different implications on the need of fiscal frontiers, border adjustments, tax compliance and administration. The presumed superiority of VAT over the RST is far from being proved and some further analysis is needed. Quite the opposite, if we cosider possible effects on international trade, both in terms of border tax adjustments and the need of a clearing mechanism to reallocate the tax revenue, the RST seems superior to VAT. Differently to VAT, the RST does not need in fact any special provisions to relieve interstate sales from the tax they may have borne in the state of origin; but if we consider also the issues of compliance and tax administration, VAT may finally offset this initial disadvantage. However, this aspect is discussed below in par. 4.1 and 4.2.

Finally, there is the interesting option (4) of a dual VAT, i.e., of a joint national (federal)-state VAT. This option is similar to option 1 but instead of using a revenue-sharing arrangement is organized with two components: a federal (national) VAT levied at a uniform rate across the country and a state VAT with variable rates across the states. This solution offers many positive aspects, mainly the possibility of piggy-backing between the two taxes and the potential strengthening of tax enforcement and collection. All this requires however some extensive degree of coordination among the federal government and states. Although the EU does not seem at this time ready or prepared to adopt this option, nor the foreseeable political developments in the Union induce to be optimistic on this regard, this solution, as already proved by the Canadian experience, could be a good compromise for an efficient and stable design of the European VAT. This solution is discussed in par. 4.2.

# 4 Financing the EU budget by means of a true tax own-resource based: what possible solutions?

## 4.1 Reasons for a New VAT for the EU (budget): A Politically Feasible Consumption Tax for the EU

The system of own resources for financing the EU budget is at a turning point. The recent crisis and difficulties in the process of adopting the new Financial Perspectives forces member States to find a stable and viable solution to the Community finances. In this respect, one crucial feature is re-examining the rationale and working of the European budget. More significantly, setting up a new financing mechanism for the EU budget would not only cope with its recent crisis but would also offer a good chance of rethinking EU missions and roles. With some exceptions[36], the issue of financing has been surprisingly neglected in the last years' discussions that have been essentially concentrated on the expenditure side. We review the main issues of current financing mechanism and suggest some possible ways of reforming the VAT regime and the budget financing of the European Union.

[35] See on this, the three criteria discussed in point 3.3.

[36] See for example, Cipriani-Marè (2004), Gros-Micossi (2005), Begg (2005), Amato-Marè (2005), Lefebvre (2005), Cipriani (2006), Emerson *et al.* (2006) Le Cacheux (2005, 2007).

There are some clear standpoints from which one needs to start:

a) As for any budget, both of federal and unitary countries, the tax revenue must be founded on tax-based own resources and relies only residually on the GNI 'fourth resource';

b) the system of budget financing has to become more transparent and less complex. European citizens have to be fully informed and aware of what and how much they pay as tax revenue to the EU;

c) the methodology to calculate net balances is not well grounded in economic terms. It does not take into account the economic theory of tax incidence and therefore the final picture is misleading. Net balance calculations aiming at assessing the real beneficiaries of the EU budget resources are biased;

d) although one may think to possible operational solutions, there is a quick and easy solution to the financing issue of the EU budget. VAT is the best candidate for this role, given its wide-ranging spread and the large harmonization of the tax base.

e) However, the current working of VAT shows some drawbacks and therefore the existing VAT is unsuitable for this purpose. VAT needs to be ambitiously reshaped – in particular, its practical functioning – so as to achieve a genuine, neutral consumption tax, whose revenue should flow to countries where final consumption takes place.

f) The best economic and practical solution is to move to a pre-retail VAT coupled with a retail sales tax at the state level. This *new VAT – FCT* (final consumption tax) – may not only solve the old question of the VAT 'definitive regime', but also be a perfect source of revenue for the EU budget. This solution could be implemented with some very easy adjustments to the current working of VAT. The mechanism would simply rely on a single, identical rate – but not for this harmonized – levied on transactions among VAT taxpayers within the EU, whose revenue might flow partially or fully to the EU budget.

There are therefore plenty of solutions for choosing a EU consumption tax: from a single stage tax, like the RST of the USA, to a Dual VAT, a federal VAT up to a mix of a pre-retail VAT with a retail sales tax levied at the state level. A federal or a European VAT would clearly be the easiest, most practical solution, in terms of tax coordination among the various level of governments, especially for administrative purpose. A European VAT would solve by definition the issue of the EU budget financing; more specifically, given that the revenue would flow to the central budget, any issues of tax clearing would be automatically worked out. However, a federal VAT would inevitably and dramatically exacerbate the most sensible political issue in Europe in the domain of taxation: states' freedom to tax consumption independently would inevitably be limited. Some federal countries have chosen a similar solution – like Canada and Germany (with a revenue reapportionment in line with indicators of the distribution of consumption among Länder) – but the European Union does not seem ready to this stage of development and we wonder whether it will be ever able to achieve this level of integration.

On the other hand, on the opposite spectrum of consumption taxes, there is the solution of a single stage tax on the final point of retail, as in the experience of USA and India[37]. If two of the most important federal countries have chosen the solution of a retail sales tax, this should not be taken as a coincidence. RSTs are the most respectful solution for state autonomy insofar as they leave states free of taxing their consumption base. Moreover, being a single stage tax, RSTs easily solve problems of inter-state trade – no clearing mechanism is

[37] Paradoxically, few months ago India decided to move to VAT. But its adoption appears very complicated and many states have refused its endorsement until now choosing to stick to the traditional retail sales taxes.

necessary, nor border tax adjustments. But we have to admit, the European experience is based on VAT and a RST, even if more federal in its nature, could be politically difficult to implement[38].

But some good and interesting compromises can be envisaged looking at some intermediate solutions. A Dual VAT has proved to be a good tax and showed a good performance in Canada and other federal countries; but in the EU we are not yet at this stage of development. This solution consists in applying a VAT at both levels of government: the federal VAT applies on the same base of the state VAT. The best practical and politically feasible solution for the European Union is however to get a pre-retail VAT with a RST at the state level. This solution may offer many relevant advantages for state tax autonomy and strong simplification of the definitive regime of EU VAT. Finally, this is the easiest solution to put also forward a new way of financing the EU budget.

## 4.2 Using VAT for taxing consumption and financing the EU budget

*4.2.1 Solving the current dilemma of EU VAT*

With the long-term aim to shift to a definitive origin-based regime, from the 1st January 1993 a temporary regime has been adopted. This regime still applies the destination principle but without using BTAs, i.e., the fiscal adjustments to frontier posts. The destination principle – goods and services are still taxed according to the rate of the country where final consumption takes place – is applied with a different operational mechanism. If before 1993, tax adjustments among countries, for the application of a zero rate to exports, were made at customs posts, where the imported good was taxed, now BTAs are levied by the first importer who takes into account in his books the value added tax related to imports.

This temporary regime has raised many issues: i) it has considerably increased the risk of tax fraud and has been criticized by national administrations for this motive and for making controls difficult and complex, but also, for reducing the states' power in monitoring the working of VATs; ii) in the European area do now exist, de facto, three different taxing regimes, which render compliance for firms and administrations quite burdensome; iii) there is still a market segmentation and the same rule of taxation had not been applied; iv) finally, the zero rating tends to interrupts the VAT chain, that is to say, to weaken the VAT chain[39], the self-policing mechanism which is one of the most important advantage of the multistage way of taxing consumption, as with VAT.

During these years, the Commission has tried to move to a definitive regime, where the origin principle will be applied. However, the origin regime would require not only a clearing mechanism, to compensate states for intra-EU trade, but also a complete unification of tax rates across the EU. This full harmonization is not only politically unachievable but also unnecessary in a modern framework of assigning taxing powers to lower-level jurisdictions within the EU. For these reasons the shift to the origin principle has been de facto set aside.

[38] The traditional argument in favour of VAT based on its superiority in terms of compliance, the so called self-policing mechanism – or conflict of interests – is largely overstated. See on this Marè (2006) and Leccisotti-Marè (1992).

[39] The Commission in the document for a new common system of VAT (COM96, 328 final, p. 13) has admitted that the current temporary regime provokes *"a real loss of sovereignty over tax matters ; this is because the fragmentation of the activities of taxable persons between the various Member States prevents administrations from being able to monitor the overall activity of a firm"*.

Although it has been reaffirming the objective of the origin principle in the long run, in the last years the European Commission[40] wisely acknowledged that in order to leave to VAT the nature of a consumption tax, and especially to meet the will of states to have a certain room of manoeuvre in taxing consumption, the destination principle will finally be retained, so as to allocate VAT revenue to states where final consumption of goods and services takes place. The new guidelines move in the right direction, the only compatible with a true and genuine taxation of consumption. The destination is the unique principle compatible with a true tax on final consumption. Of course, in designing a new regime, costs and burdens for firms and VAT taxpayers, that are not negligible, have to be taken carefully into consideration. But in doing so, one must not forget that VAT is a tax on final consumption; i.e., tax revenue has to be assigned to states where final consumption is deemed to take place – easing at the same time compliance burdens for operators. See table 13 and 14 for the current still strongly divergent situation in VAT rates within the European Union.

*4.2.2 A new EU consumption tax for financing the budget and allowing states' autonomy*

An own resources system based on VAT appears to be the best solution. VAT is already one of the main sources of the budget, even if its weight and role has been decreasing in the last few years. Due to its direct link with daily consumption, and contrary to the current "statistical" VAT resource, the application of an EU rate to national VAT bases would create a clear direct link between the financing of the EU budget and the citizen and increase awareness on Union's costs. A genuinely fiscal VAT resource could be implemented through a EU rate as a part of the national VAT rate paid by taxpayers. The rate would be levied together with the national rate on the same taxable base. Citizens would not have to bear any additional burden, as the EU rate would be offset by an equivalent decrease of the national VAT rate[41]. For visibility purposes, the EU VAT and the national VAT could appear as separate taxes on the invoice or receipt that a taxable person provides to his customer. However, even if the final outcome is not different from the existing one, this could raise political problems, given that taxpayers barely know in the current situation they are paying a part of VAT to the EU.

But apart from the budget financing, the real issue is how to reform the current working of EU VAT and to give a 'double definitive solution' to VAT regime. For this purpose, the best solution is separating the stage of the retail from the previous ones of the VAT chain. In the medium term, some more ambitious options could be envisaged, such as a 'devoted national rate' to the European budget or a form of a European VAT.

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[40] The new European Commission's strategy has been launched by the COM(2003)614 final (20th October). The most important Commission's new guidelines are: a) "VAT is fundamentally conceived as a general consumption tax, with *revenue going to the Member State where actually consumption takes place*. […] regardless of the *place where the taxable person* carrying out the transaction *is established*, it is *taxed at the rate applied in the Member State of consumption*. (emph. add.); b) to *shift taxation from the service's provider place of establishment to the customer's* (p. 16)". (emph. add.); c) to consider an across-the-board *switch from the origin to the destination principle*" (p. 16)" and most importantly "the Commission accepts that the developments outlined above show the common system of VAT *moving away from a regime based on the origin principle*" (18) (emph. add.); d) The Commission reaffirms as a long-term goal the origin regime but admit, "so long as there is no political will to switch to an origin-based system, any improvements to the existing common VAT system must be in line with the structure of the system as it exists. To ensure that the revenue goes to the Member state of consumption, *transaction should be taxed as close as possible to the place of destination (consumer) rather than the place of origin (supplier)*. This regime still allows Member states a degree of flexibility in setting rates" (emph. add.). (p. 18).

[41] For example, if the national VAT rate were at 16%, and the EU rate at 1%, the national rate would have to be reduced to 15%. The total VAT rate levied would still be 16 %. A EU rate of 1% should be enough to cover about half of the financing needs of the EU budget.

In the meantime, a softer and more practicable solution could be explored, so as to resolve inter-state EU trade and the definitive regime. In practical terms, VAT will work until the stage of retail and then a consumption tax would be levied in a way similar to the RSTs of USA. VAT taxpayers should apply on transactions with other registered VAT taxpayers a single identical rate – see the Box 1[42]. This rate should be applied only on these transactions and not on sales to final consumers. In practice, this is equivalent at levying a VAT until the stage of retail and superimposing on this stage a state retail sales tax. The single rate on intermediate purchases would not mean in any case a form of full rate unification, given that, as it is well known, the final burden of any consumption tax is given by the rate levied in the last stage on final sales. Therefore this solution could reduce distortions on intra-EU trade, the scope of the clearing mechanism, and most of all, to leave state jurisdictions with a remarkable autonomy in consumption tax setting.

In practical terms, we have two possible options: a) to put on intermediate transactions the lowest among the reduced rates – or an average of them – currently used within the EU – let us say a rate included between 6 and 10%. A part of this rate could be then paid directly to the EU budget – 1 or 2% – and this will be the new source of VAT revenue; b) the second option will apply directly a rate of 1-2% on transactions among VAT taxpayers and in the same way as above, this amount would flow to the EU budget.

This solution has many advantages: first of all, it reaffirms the destination principle in the working of EU VAT, which is the only criterion compatible with a genuine consumption tax; secondly, it solves the old dilemma of the definitive regime, by leaving states free of taxing their consumption and to get the revenue; from the point of view of tax evasion, the new consumption tax can also reduce the scope of carousel and fraud and supply the right incentive to firms and administrations. In particular, instead of using national accounts statistics – which raised old controversies on the exact and real size of underground economy in different countries – this solution would rely on tax returns, according to which countries who evade will be penalized by receiving less revenue; last but not least, it can be a practical and efficient way to finance the EU budget[43].

The recent debate on the best possible consumption and sales tax in Europe let emerge some other possible solutions suggested in particular in the American discussion on what might be the best federal sales tax – namely, a Dual VAT, like those adopted in many Canadian provinces and a compensating Vat which emerged as a possible solution in Brazil – see table 15 for a discussion of the different merits and shortcomings of various proposal[44].

### 4.3 Other possible sources of tax revenue

EU specialists and academic profession have largely discussed during the last 40 years what a perfect European tax might look like – see table 16. In our opinion apart from VAT, that remains the best candidate, as shown also by the long experience of major federal countries, two other sources of revenue for the EU budget stand out. The first would be the corporate

[42] See on this Marè-Sarcinelli (1991), Marè (2003, 2006), and the proposal of ViVAT by Keen-Smith (1996), Keen (2000).

[43] Some forms of clearing mechanism will still be necessary, but this mechanism would be much more simplified; moreover, the use of national tax returns would reduce playing behaviors by taxpayers and administrations.

44 I have discussed in detail these proposals in Marè (2006) and Marè (2014).

income tax. In a manner consistent with the theory of fiscal federalism, this is levied at federal level in the U.S. Europe may well do the same. Indeed, whatever the critics of tax harmonization think, a single corporate income tax would greatly help making a level playing field of the internal market. Using this source of revenue to finance the EU budget has recently been proposed by a group of French intellectuals headed by Thomas Piketty (see "Our Manifesto for Europe", The Guardian, May 2, 2014).

The corporate income tax represented 10 percent of total tax revenue in 2008 in the Organization for Economic Cooperation and Development (OECD). By the rule of thumb, it should thus be able to finance at least 3 or 4 times over the current EU budget, which is equivalent to 1% of Europe's GDP.

The second resource we recommend would be a single levy (the existing VAT) on all (extra EU) imports. If one also assumes, in parallel, the creation of a single EU customs organization, then the tax collector finally identifies with the beneficiary, the EU budget (or shall we call it the EU Treasury?). This is obviously not the case today: 28 national customs organizations collect duties on behalf of EU coffers for a fee (25% of the revenues). This reform would also eliminate potential distortions in the flow of trade – and therefore of duties and VAT income - due to the unequal application of the same customs code on the part of 28 independent national agencies.

Note that the creation of an EU single customs organization would not require a change of the EU Treaty, since a "Customs Union" is already the first "exclusive competence" of the EU, according to article 3 of the Treaty on its functioning. Similarly, giving to it a mandate to collect not only duties but also the VAT on (extra EU) imports, as a matter of tax policy, would require unanimity, but again not a change of the Treaty.

According to a specific study on this subject, the VAT on (extra EU) imported goods raised the equivalent of 1.6% of the EU GDP in 2006. A low-growth scenario projection to 2014 brings this figure to almost 2%.45 Thus, this source could cover twice as much as the current EU budget.

In table 13 we also report some other possible candidates for a EU tax usually considered in the academic discussion and European circles. The energy/carbon tax could be a good solution given the spillovers existing in the environmental issues. The attempts of the last 20 years have shown however many disputes and controversies on how to promote an efficient and effective protection of the environment and a strong different attitude between Nordic and Southern countries.

We are quite sceptics instead on the real chance that a financial transaction tax may have to become a European common tax. Since the Commission's proposal in 2012, the debate has revealed a strong resistance by the financial community, a lot of technical and administrative issues and the fear that this tax may concretely damage the European financial institutions and markets in favour of those operating in the US and other emerging market – not to mention the tax havens!

[45] See Claudia Bornico, "Studio di una nuova fonte di finanziamento nell'ambito del bilancio dell'Unione Europea", Associazione Universitaria di Studi Europei, Pavia, Italy, January 2006.

Even a European "Federation Lite" (see Bonino-De Andreis, 2011), with substantial functions of government to carry out and a budget of around 5% of Europe's GDP, could be financed entirely by the two sources we mentioned, leaving all the rest in the hands of member states.

**5 Conclusions**

The EU budget can and should be extensively reformed. The current EU budget is flawed by many pitfalls and drawbacks. First of all, the expenditure is rigid, the transfer of resources between main headings is not allowed, all expenditures have to be financed out of own resources since no deficit and debt is allowed. But, more importantly, from the point of the European construction, the main problem is that almost 80% of the budget resources are allocated to subsidies and transfers with a strong redistributive nature. These programs should gradually be renationalized – mainly in the domain of agriculture and social cohesion.

The amount of resources devoted to real genuine European public goods such as defence, border control, external affairs and security, R&D and so on is still very limited. With few exceptions and for a very limited amount of resources, the current EU does not supply any kind of traditional public goods that other mature federations usually provide. This situation calls for an urgent plan of the European Commission who may define a tentative new agenda and makes clear to European citizens whether it envisages some development in these domains or, more simply, prefers to keep living with the existent contradictions and ambiguities.

The same picture also emerges from the current situation of the own resources. In the last 30 years, EU countries have also decided to change the basic nature of own tax-based resource financing the EU budget and to move from the VAT and custom duties, to a fourth resource, the GNI-related contribution, which gives to the European financing system the nature of a mechanism suitable for a club, not for a supranational body, where each individual member decides after a long, damaging bargaining, the amount of resources (the check to be written.) is willing to pay for the common EU budget. While the European construction made indisputable progress and achievements during the last 30 years, with the launch of the Euro and now with the banking Union, perhaps the time is arrived to decide whether the common budget area will have to be fundamentally reformed, with the definition of some genuine EU tax.

At the beginning of this paper we wondered whether this would be possible. We may have in theory many answers to this question, but we just need a credible one. Of course, Member States could stick to the current arrangements on the expenditure side and base future financing entirely on national contributions. We believe this is not a good path. Instead, Member States should be ambitious and adopt a new budget structure and a tax-based financing. As such, the EU budget is a key condition for the evolution of European integration and also part of the debate on the legitimacy of the Union's action. Indeed, debating the EU budget is actually discussing competing visions of Europe's future.

## Appendix: Sales taxes in selected federal countries

### Canada

An excellent example of the possible options and dilemma federal countries have to face with regard to state taxation is the Canadian evolution of the sales taxes: from two different sales taxes to by and large a single form of consumption tax, namely the VAT. For a long time, the federal level has been using a tax on the stage of production, which was levied on the manufacturers' selling price for domestic goods and on the duty-paid value for imports[46]. On the other hand, most Provinces used different kinds of sales taxes at the retail stage. This structure raised many concerns in terms of efficiency, lack of neutrality, tax cascading and complexity, not to mention the difficulties for tax administration. Therefore, given the clear advantages the Canadian government envisaged at that time in integrating federal and states sales taxation in a more or less single form of sales taxation, from 1997 the entire structure of taxation has been largely revised and accordingly coordinated. In practice, a jointly operated national sales tax was introduced: the VAT launch at the federal level (GST, Good and Service Tax) as well as in many provinces has solved and simplified the previous complex structure: "the tax have a common base, a common federal tax rate and variable provincial tax rates. There are however some major issue still arising such as how to account for the tax on inter-provincial sales if goods and services are to be taxed according to the destination principle" [47]. It is not surprising therefore that the idea of having a common federal tax working jointly with several states retail sales taxes has been for many years at the core of the debate.

In Table 8, we explain in some detail the rather differentiated Canadian situation. The menu of consumption taxes used in this country is very rich and broad; Canada is the ideal laboratory for any study on the coordination of separate and different taxes on consumption across different levels of government. Moreover, the solutions adopted in the Canadian experience may be very useful for the future reforming path of the European Union and other federal countries.

Alberta 2) is the only province to use a single federal VAT[48], with no consumption tax at the provincial level, while in Quebec 3) to the federal VAT (GST) is associated the Quebec Sales Tax – a special form of VAT. The base for the taxes of the two levels of government is the same, even if some special rules sometimes apply for provinces. It is important to highlight that the province of Quebec administrates both taxes and applies the provincial tax on a base inclusive of the federal GST. This is a positive element for the VAT robustness with respect to evasion and administration even if some cascading inevitably occurs. The joint administration is however on the whole quite positive: in fact, some economies of scale may emerge for the federal level given the strong incentive Quebec has in checking both bases and taxes.

In the first group 1) of five provinces (British Columbia, Newfoundland, Nova Scotia, New Brunswick, Ontario) the two-tiers VATs are completely harmonized and managed at the federal level in a single tax (VAT) called the Harmonized Sales Tax (HST). The revenue of the provincial share of the HST is then assigned to the provinces. In the group 4) of three provinces (Saskatchewan, Manitoba and Prince Edward Island) the federal tax (the GST) is

[46] See on previous Canadian sales taxes, Poddar (1988).
[47] Cnossen (1988, p. 392, emph. add.).
[48] The Canadian VAT is named Good and Service Tax (GST).

used jointly with a provincial sales tax (Pst) which is a RST, even if between the provinces there are many important differences in the practical enforcement, application, exemptions and base coverage.

In Table 9 we illustrate the Canadian rates for the various combinations of GSTs, HSTs and RSTs and which level of government is responsible for the tax administration. The general rate of the federal GST is 5%. In the case of British Columbia, Newfoundland, Nova Scotia, New Brunswick and Ontario we have a unique tax for the two levels, the HST that applies 5% for the national level and from 7 to 10% for the provincial one. Quebec couples the federal GST of 5% with a provincial VAT, the Quebec Sales Tax, which applies a rate of 7.5%. The province of Quebec administers both taxes. Other 3 provinces, Saskatchewan, Manitoba and Prince Edward Island make use of the GST and of different RSTs with the rate of 5% in Saskatchewan, 7% in Manitoba and 10% in Prince Edward Island. Finally, Alberta has no provincial sales tax.

**United States**

In table 10 we give a full account of rates for sales taxes and excises in all 51 American states as of January 1, 2011[49]. The sales rates vary from the lowest 2.9 per cent of Colorado to the highest rates of 8.25 per cent of California. Five states do not levy any rate on sales to consumers, such as Alaska, Delaware, Montana, New Hampshire and Oregon. Florida shows a rate of 6.0 per cent, Arizona 6.60%, Massachusetts 6.25%, Minnesota 6.875%, Indiana, Mississippi, New Jersey, Rhode Island and Tennessee 7.0%, Pennsylvania 6.0%, Texas 6.25%, Washington 6.50%.

In table 11 we provide other useful information on the role and economic weight of the retail sales taxes in states revenue financing and US fiscal federalism. We see that the economic significance of the RSTs – as pointed out by the sales taxes per capita – are much differentiated across the states. Excluding the states where no taxes are levied, rates fluctuate from the lowest level of Vermont and Virginia, which rank as 45th and 44th, with 555 and 611 dollars per capita, to the highest of Wyoming (2,303 dollars), Washington (2,108) and Hawaii (2,043 dollars). The average of sales taxes for all states is equal to 1,005 dollars per capita. The figures show a very significant economic role of the Retail Sales Taxes in the annual budget of the households, as well as in the structure of revenue financing of the various states.

To show this latter aspect, in column 5 the relative weight of the sales taxes as a percentage of total state taxes has been accounted for. Sales taxes account for around half of the total revenue of Hawaii (47.9%), for a percentage higher than 60 per cent of the total revenue in Tennessee (60.6) and Washington (61.2). Florida (55.9%) and South Dakota (57.5%) show percentages bigger than 50%. At the lowest level, we find Vermont and Virginia with 13.5% and 19.0% respectively. The sales taxes represent, in average, approximately one third (32.1%) of the total states taxes revenue.

During the last three decades there has been an intense debate in the US on the possible advantages of moving to a federal sales tax, both in the form of a federal RST or even better as a VAT. Most of the academic experts have advocated the case for a VAT in the European style, also considering the positive experience of the Canadian federation[50] and the relative superiority of VAT in taxing all sales and exempting business inputs. The introduction in the US of a federal sales tax is made difficult, however, by the facts that many local governments

[49] See for a general evaluation of the RSTs, Mikesell (1997).

[50] See on this Bird (1999), McLure (2005), Hellerstein (2005), Keen (2007).

levy various forms of taxes on the base of consumption and that the states are very jealous of their tax autonomy in taxing consumption and setting the rates. A classic dual system, such as the one existing in Canada, India and Brazil would be problematic given that some genuine forms of vertical coordination with local consumption taxes should in the end be envisaged. The move toward a dual VAT-consumption tax system would have to overcome the prejudices of American states on the possible risk that this dual approach may limit and restrain their autonomy, as a consequence of the introduction of a federal tax. Last but not least, there is the old and well-known argument of the VAT as a money machine, therefore causing a considerable increase in the size of the federal government[51].

**India**

Another important example in taxing consumption at the federal and state level Is India, where a long tradition in coordinating consumption taxes at different levels of government exists. On 1st April 2005, India decided to adopt VAT at the central and state level, even if this tax is quite different from the current, ideal VAT used in Europe, Canada and in many other countries. In its essence, the Indian VAT is a tax only on the manufacturing sector and imports and excludes a large part of final sales to consumers. VATs are applied on an origin-base, not destination. Only 20 states, out of 28, have however adopted state VATs, while the remaining states have decided to stick to the traditional RSTs and the situation is still evolving.

Sales tax can be levied either by the Central or State Government. From June 2008, a 2 per cent tax (from 4%) is generally levied on all inter-State sales. State sales taxes that apply on sales made within a State, have rates that range from 4 to 15 per cent. Exports and services are exempt from sales tax. Sales tax is levied on the seller who recovers it from the customer at the time of sale. Sales Tax in India are imposed under Central Government (Central Sales Tax) and the State Government (Sales Tax) Legislation. Normally, each state has its own sales tax act and levies the tax at various rates. However, most of the states in India, from April 01, 2005, have supplemented the sales tax with the new Value Added Tax (VAT). VAT rates in India are the following: 0% for the essential commodities; 1% on gold ingots as well as expensive stones; 4% on capital merchandise, industrial inputs, and commodities of mass consumption; 12.5% on all other items. Variable rates (depending on state) are applicable for tobacco, liquor, petroleum products, etc. A Central Sales Tax of 4% is also levied on inter-State sales but this tax should be eliminated gradually if a fully neutral VAT has to be finally adopted.

The major problem in India, as in other federal experiences, is how to tax and treat the interstate trade in order to reach a neutral solution and achieve a true internal market for goods and services. The fact that "no tax credit will be allowed for inter-state trade seriously undermines the basic benefit of enforcing a VAT system, namely the removal of the distortions in movement of goods across the states[52]". Moreover, there are also a series of indirect taxes at the central and state levels that need to be integrated into a fully comprehensive, neutral sales tax. Perhaps the major barrier to inter-state trade is the Central Sales Tax levied by the central government and a satisfactory solution should envisage its phasing out. When this process will be completed, controls could be abolished on nearly all state borders. The government is committed to the introduction of a nation-wide goods and

[51] See Keen-Lockwood (2007).
52 See Sharma (2004).

services tax that would meet these objectives, but its final form has yet to be determined[53]. Unfortunately, the elimination of the Central sales tax (CST) has been still deferred even if a dual GST is expected to replace the current taxes. CST is levied on basis of origin and collected by the exporting state; the consumers of the importing state bear its incidence. CST creates tax barriers to integrate the Indian market and leads to cascading impact on cost of production. Further, the denial of input tax credit on inter-state sales and inter state transfers would affect free flow of goods." (Sharma, 2004).

**Brazil**

The long tradition of Brazil in taxing consumption at the state level has not allowed this country to work out the issues of tax coordination in taxing consumption[54]. The federal tax in Brazil ('IPI' – *imposto sobre productos industrializados*) is not a comprehensive VAT – it is a single stage tax – and is essentially limited to the manufacturing sector/goods and imports and operates with many rates and exemptions – ie, exports are exempt. The national VAT (IPI) rates depend on the type of the product at an average rate of 20%. The federal tax resembles to VAT since it provides some credit for the input taxes. The IPI revenue is then assigned back to the states according some revenue-sharing formula. The tax is largely imperfect not only for its limited tax base and coverage but for the imperfect shifting to the final consumption, as it should be for any general consumption tax.

At the state level Brazil uses a fully VAT (the 'ICMS' – *imposto sobre operacoes relatives a circulacao de mercadorias e servicios)* which applies the origin principle, not that of destination – revenue accrues to the state where the good or service is produced – and uses the invoice-credit mechanism. This makes the working of the state VAT, and more generally of the 'Dual VAT', largely imperfect and cumbersome. The origin principle brings the well known problems of the redistribution of the tax revenue accrued to the states where the goods are produced – the clearing mechanism already proposed in the '80s by the EC in the EU – as well as the imbalances following from trade surplus and deficit among the states. Some reduce rates are applied on the interstate trade with poorer states. At the same time this VAT tends to exclude several services and although is extended through the retail stage, there is still some imperfect shifting of the tax and cascading.

The state VAT (ICMS) is charged at rates ranging from 7% to 25%. Intrastate transactions are taxed at 18%, interstate transactions are taxed at 7% and 12%, and most imports are taxed at between 18% and 25%. Communication services are taxed at between 13% and 25% [55]. Basic necessities are exempt and zero-rated or taxed at 7%. The rate on the industrial sector is 12-18%, that on utilities and oil/fuels 25%, while on luxury and excisable goods is 30-35%[56]. The states can set their internal VAT rates and usually these vary a lot on different items and goods[57]. Generally the municipalities then tax services that are exempt from the state VAT.[58]

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[53] See OECD Economic Survey on India, 2007.

[54] Bird-Gendron (2000) wrote that "the first country to introduce a full-fledged VAT was not France (which has indeed pioneered with this form of taxation but did not initially carry it through the retail stage). Perhaps surprisingly, that country was Brazil".

[55] See for a discussion on Brazilian states VAT rates and exemptions, de Mello (2007).

[56] See Jimenez (2010).

[57] See for an evaluation of the Brazilian VATs, Varsano (1999), Bird (1999), Bird-Gendron (2000), Ebrill et al. (2001), Bird-Mintz-Wilson (2006), de Mello (2007). For a discussion of the fiscal federalism in Brazil see Mora-Varsano (2001). For recent data see Jimenez (2010).

On the whole, the Brazilian experience with VAT is very interesting but the balance is still not satisfactorily. As stated by Bird and Gendron (2001, 19) "at present in Brazil the origin principle applies with respect to interstate trade. Moreover, there is no meaningful conceptual or administrative integration between the federal and state versions of the VAT. *Brazil in a sense thus has the worst of both worlds* (emph. add.). It has all the problems of dealing with cross-border trade that have, for example, bedevilled the EU. In addition, it also has excessive compliance and administrative costs, tax exporting and tax competition – problems that are often alleged to be inevitable by products of such "dual" VAT systems."[59] – which has determined a tax war between the Brazilian states; finally the different rates have produced serious economic distortions and a considerable tax evasion.

**Argentina**

Argentina has reformed the structure of sales taxation only during the '90, perhaps learning the lesson from Brazil. Argentina has a quite satisfactory federal VAT which applies a rate of 20 per cent, while the provinces use a very limited form of VAT – essentially a turnover tax, the provincial gross receipt taxes, which are no destination-based. This turnover tax is levied with many rates on various business and activities[60].

There has been a long debate on which solution would prove to be the best to reform the two levels sales tax system: a single provincial VAT, a provincial RST or a dual VAT system as in Canada, where the latter seems to be the preferred solution. The adoption of an ideal destination-based VAT is however complicated by the fact that the transfer process tied to the clearing mechanism would inevitably involve significant transfer of tax revenue from the richest provinces (for example, Buenos Aires) to the less well-off.

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58 "There is a wide dispersion of rates levied on intra-state transactions, and a systematic compilation of ICMS legislation is not available. Intra-state rates are required to be set in principle within a range determined by the Senate, with a minimum rate of 12%. Basic necessities are typically exempt, zero-rated (which generates a credit) or taxed at 7%. Because several states use the ICMS as an industrial policy instrument, many sectors are taxed in the 12%-18% range, such as the motor industry, while utilities and oil/fuels are taxed at 25%. The ICMS collected in these sectors accounted for about 40% of total ICMS revenue in 2001, up from nearly 27% in 1997. Luxury goods, as well as typical excisables, such as tobacco and beverages, tend to be taxed at a higher rate of 30-35%. The states with fiscal consolidation needs often levy this higher rate on price-inelastic goods and utilities as a means of raising revenue. […] As in the case of the federal indirect taxes, many states collect the ICMS at the production, rather than the retail, stage on the basis of the estimated tax liability for an average production chain in different sectors. Liabilities are calculated on a tax-inclusive basis. The ICMS is collected on an origin basis, so that revenue accrues to the state where the good/service is produced. Poorer states, typically net importers of ICMS-liable goods and services, have therefore called for shifting collection to the destination, which would result in a redistribution of the ICMS tax take in their favour. A compromise has been reached by applying different rates on inter-state trade. Accordingly, trade between a rich state (i.e., those states located in the South, South-East and Centre-West) and a poor state (i.e., those located in the North and Northeast, as well as the state of Espírito Santo) is taxed at 7%; otherwise, interstate trade is taxed at 12%, the lowest rate applicable in principle to intra-state trade in any state. Registered traders in an importing state are allowed to credit their taxes paid on inter-state imports against their ICMS liabilities in the importing state" de Mello (2007, 7).

59 Along the same line Varsano (1999, 9) wrote "IPI and ICMS are partial taxes, the former on manufactured goods only and the later on all merchandises but not on services in general. They are highly selective taxes, many distinct rates applying to different goods; and, in the case of the ICMS, the rate concerning any particular good varies among states while interstate transactions are subject to one out of two yet different rates, set by the Federal Senate.".

60 See Bird-Gendron (2000), Rezk (2000), Bird-Mintz-Wilson (2006).

## Table 1

### Table 1: EU budget revenue 1970-2010 (% GNI)

| | 1970 | 1979 | 1988 | 1995 | 2004 | 2010 |
|---|---|---|---|---|---|---|
| | EU-6 | EU-9 | EU-12 | EU-15 | EU-25 | EU-27 |
| VAT-based own resource (1) | --- | 0,38 | 0,59 | 0,58 | 0,13 | 0,10 |
| GNP/GNI-based own resource (2) | --- | --- | 0,10 | 0,21 | 0,65 | 0,75 |
| Other payments from/to Member States (3) | 0,78 | --- | --- | --- | --- | --- |
| Total national contributions (4)=(1)+(2)+(3) | 0,78 | 0,38 | 0,68 | 0,80 | 0,78 | 0,85 |
| Traditional own resources (5) | --- | 0,39 | 0,28 | 0,22 | 0,12 | 0,13 |
| Total own resources (6)=(4)+(5) | 0,78 | 0,77 | 0,96 | 1,01 | 0,90 | 0,97 |
| Surplus from previous year (7) | --- | 0,00 | 0,01 | 0,10 | 0,05 | 0,02 |
| Other revenue (8) | 0,00 | 0,01 | 0,01 | 0,01 | 0,03 | 0,05 |
| **TOTAL REVENUE** (9)=(6)+(7)+(8) | **0,78** | **0,78** | **0,99** | **1,12** | **0,98** | **1,05** |

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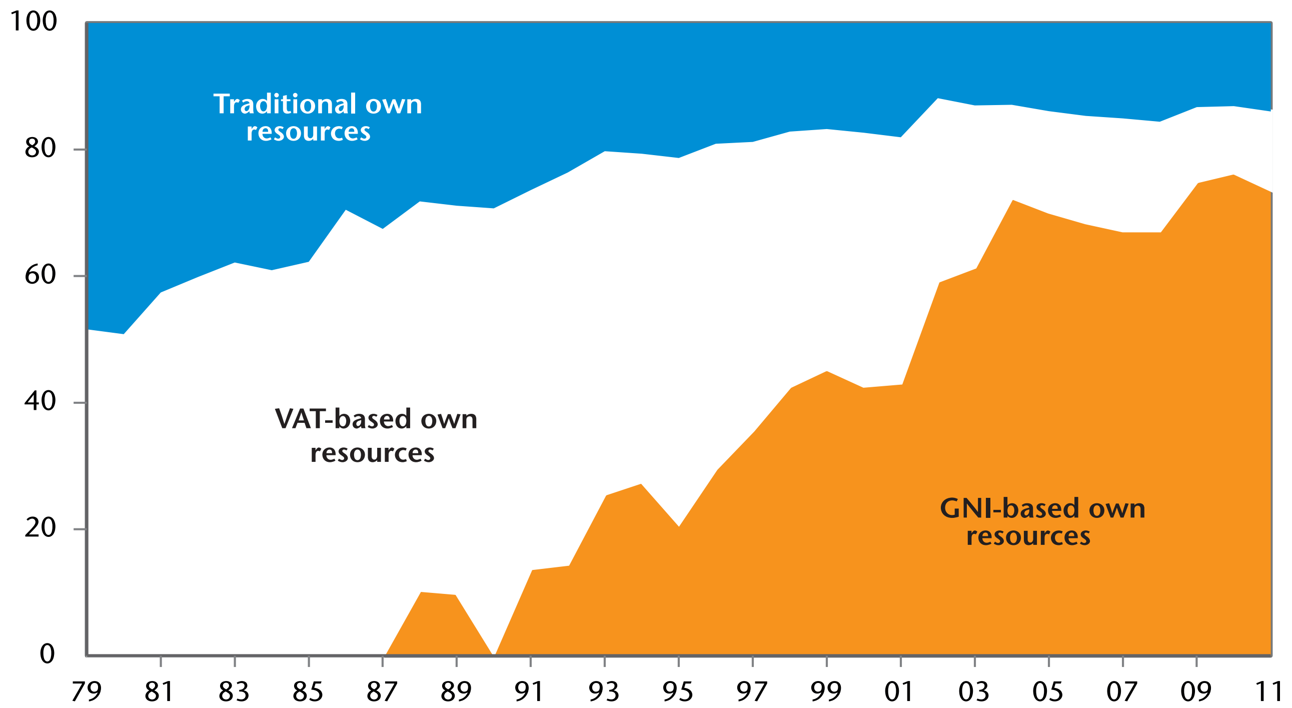
## Figure 1. Composition of EU revenues from own resources




*Source*: European Commission, 2012.

**Table 2**
**Eu budget: Type of revenue**

# Breakdown by type of revenue

| Type of revenue (1) | EU budget 2013 | | EU budget 2014 | |
|---|---|---|---|---|
| | EUR million (2) | % | EUR million (2) | % |
| Customs duties and sugar levies | 14822.7 | 10.3 | 16310.7 | 12.0 |
| VAT-based resource | 14680.1 | 10.2 | 17882.2 | 13.2 |
| GNI-based resource | 110822.8 | 76.7 | 99767.3 | 73.6 |
| Other revenue | 4125.2 | 2.9 | 1544.4 | 1.1 |
| TOTAL | **144450.8** | **100.0** | **135504.6** | **100.0** |

(1) The figures for 2013 are those corresponding to the AB no 9/2013
(2) Rounded figures

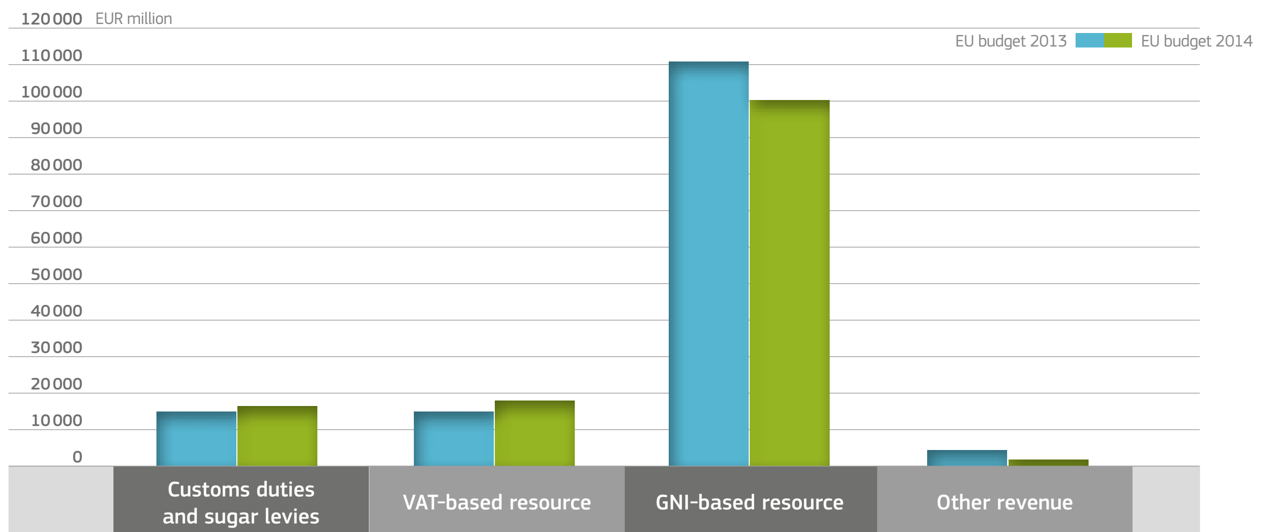


**Table 3**
**Multiannual Financial Framework 2014-2020 (in current prices)**

| 0 | | | | | | | | | (EUR million — current prices) |
|---|---|---|---|---|---|---|---|---|---|
| | Commitment appropriations | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total 2014–2020 |
| 1 | Smart and inclusive growth | 63 973 | 66 813 | 69 304 | 72 342 | 75 271 | 78 752 | 82 466 | 508 921 |
| 1a | Competitiveness for growth and jobs | 16 560 | 17 666 | 18 467 | 19 925 | 21 239 | 23 082 | 25 191 | 142 130 |
| 1b | Economic, social and territorial cohesion | 47 413 | 49 147 | 50 837 | 52 417 | 54 032 | 55 670 | 57 275 | 366 791 |
| 2 | Sustainable growth: natural resources | 59 303 | 59 599 | 59 909 | 60 191 | 60 267 | 60 344 | 60 421 | 420 034 |
| | Of which: market related expenditure and direct payments | 44 130 | 44 368 | 44 628 | 44 863 | 44 889 | 44 916 | 44 941 | 312 735 |
| 3 | Security and citizenship | 2 179 | 2 246 | 2 378 | 2 514 | 2 656 | 2 801 | 2 951 | 17 725 |
| 4 | Global Europe | 8 335 | 8 749 | 9 143 | 9 432 | 9 825 | 10 268 | 10 510 | 66 262 |
| 5 | Administration | 8 721 | 9 076 | 9 483 | 9 918 | 10 346 | 10 786 | 11 254 | 69 584 |
| | Of which: administrative expenditure of the institutions | 7 056 | 7 351 | 7 679 | 8 007 | 8 360 | 8 700 | 9 071 | 56 224 |
| 6 | Compensations | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| | Total commitment appropriations | 142 540 | 146 483 | 150 217 | 154 397 | 158 365 | 162 951 | 167 602 | 1 082 555 |
| | As a percentage of GNI | 1.03 % | 1.02 % | 1.00 % | 1.00 % | 0.99 % | 0.98 % | 0.98 % | 1.00 % |
| | Total payment appropriations | 135 866 | 141 901 | 144 685 | 142 771 | 149 074 | 153 362 | 156 295 | 1 023 954 |
| | as a percentage of GNI | 0.98 % | 0.98 % | 0.97 % | 0.92 % | 0.93 % | 0.93 % | 0.91 % | 0.95 % |
| | Margin available | 0.25 % | 0.25 % | 0.26 % | 0.31 % | 0.30 % | 0.30 % | 0.32 % | 0.28 % |
| | Own Resources Ceiling as a percentage of GNI | 1.23 % | 1.23 % | 1.23 % | 1.23 % | 1.23 % | 1.23 % | 1.23 % | 1.23 % |

**Table 4**
**Public expenditures as % of GDP (year 2010)**

| | |
|---|---|
| EU-27 | 50.6 |
| | |
| Germany | 47.9 |
| France | 56.6 |
| Italy | 50.3 |
| Poland | 45.4 |
| Spain | 45.6 |
| UK | 50.4 |
| | |
| United States | 42.3 |
| Japan | 40.7 |

Sources: Eurostat for EU and EU member states; OECD for the U.S. and Japan.

## Table 5

## Vertical Co-ordination in Taxing Consumption

| | | STATES VAT | STATES RST | STATES No Taxation |
|---|---|---|---|---|
| FEDERATION | VAT | 1 Dual VAT | 2 VAT + RST | 3 Federal VAT |
| | RST | 4 RST + VAT | 5 RST + RST | 6 Federal RST |
| | No Taxation | 7 State VAT | 8 State RST | 9 No tax |

## Table 6 Vertical Coordination in Taxing Consumption[1]

| | | **STATES** VAT | **STATES** RST | **STATES** No Taxation |
|---|---|---|---|---|
| **FEDERATION** | VAT | Canada<br>India[2]<br>Brazil[3]<br>Argentina[4] | Canada<br>India[2] | Germany<br>Austria<br>Switzerland<br>Belgium<br>Australia |
| | RST | | | |
| | No taxation | EU | USA | |

1. See for a general discussion of the different experiences par. 2.2.
2. India decided to introduce in 2006 states VATs even if these VATs use an origin based system rather than a destination one. Federal VAT however is essentially limited to the manufacturing sector and imports. Only 21 States have adopted state VAT's while the remaining still stick to the original RSTs.
3. The federal tax in Brazil is not a comprehensive VAT and is essentially limited to the manufacturing sector and imports and operates with many rates and exemptions.
4. Argentina has a typical federal VAT, while VATs used by provinces are essentially turnover taxes and not destination-based.

## Table 7

| | Table 10 | | | |
|---|---|---|---|---|
| | Sales Taxes in Federal Countries | | | |
| **Country** | | **Federal VAT** | **State Sales Taxes (VAT + RST)** | **Type of State tax** |
| Australia | | yes | no | all VAT revenue goes to states |
| Canada | | yes | yes | VATs + RSTs |
| United States | | no | yes | RSTs (5 states no tax) |
| Argentina | | yes | yes | gross receipts taxes |
| Brazil | | yes/no (turnover tax) | yes | VAT (origin base) |
| India | | no | yes | VAT |
| Germany | | yes | no | state share in VAT revenue |
| Austria | | yes | no | state share in VAT revenue |
| Belgium | | yes | no | state share in VAT revenue |
| Switzerland | | yes | no | none |
| European Union | | no | | |

**Table 8**
**Consumption Taxation in Canada**

| Provinces | Federal level | Provincial level | Types of taxes | Sub-national rate setting autonomy |
|---|---|---|---|---|
| 1) British Columbia, Newfoundland, Nova Scotia, New Brunswick, Ontario | HST | HST | VAT | No |
| 2) Alberta | GST | – | VAT | no, there is no provincial tax in place |
| 3) Quebec | GST | QST | VAT + VAT | Yes |
| 4) Saskatchewan, Manitoba, Prince Edward Island | GST | RST (Pst) | VAT + RST | Yes |

The order is from the most harmonized to the least harmonized. For provinces 1) the revenue of the provincial share of the HSTs is assigned to these provinces, while for provinces 3 and 4 federal VAT revenue is not allocated to them. Alberta (2) is the only province without a sales tax. Quebec applies VAT as a provincial sales tax named Quebec Sales Tax (QST).

**Table 9**

**Consumption Tax Rates and Tax Administration in Canada**

| | **Table 7 Consumption Tax Rates and Tax Administration in Canada** | | |
|---|---|---|---|
| | | | |
| **Central Government + Provinces** | **Federal Level** | **Provincial Level** | **Administration** |
| | | | |
| Canada | 5% | | Federal except in Quebec |
| | | | |
| 1) British Columbia | HST 5 % | HST 7% | Provincial |
| Newfoundland, | HST 5% | HST 8% | Provincial |
| Nova Scotia | HST 5% | HST 10% | Provincial |
| New Brunswick | HST5% | HST 8% | Provincial |
| Ontario | HST 5% | HST 8% | Provincial |
| | | | |
| 2) Alberta | GST 5 % | No sales tax | Federal |
| | | | |
| 3) Quebec | GST 5 % | QST (VAT) 7.5 % | Provincial |
| | | | |
| 4) Prince Edward Island | GST 5 % | RST (Pst) 10 % | Provincial |
| Saskatchewan | GST 5 % | RST (Pst) 5% | Provincial |
| Manitoba | GST 5 % | RST (Pst) 7% | Provincial |
| | | | |
| In Prince Edw ard Island the PST is applied to retail sales prices including GST. | | | |
| In Quebec the QST is applied to GST base including GST. | | | |
| In Manitoba and Saskatchew an the PST is applied to the retail level. | | | |
| There is a proposed increased in Quebec of the QST from 7.5% to 8.5 | | | |

## Tavola 10

### State and Local Sales Tax Rates
### As of January 1, 2011

| State | State Tax Rate | Rank | Avg. Local Tax Rate (a) | Combined Rate | Rank |
|---|---|---|---|---|---|
| Ala. | 4.00% | 38 | 4.03% | 8.03% | 10 |
| Alaska | None | 46 | 1.12% | 1.12% | 46 |
| Ariz. | 6.60% | 9 | 2.41% | 9.01% | 3 |
| Ark. | 6.00% | 15 | 2.10% | 8.10% | 9 |
| Calif. (b)(d) | 8.25% | 1 | 0.83% | 9.08% | 2 |
| Colo. | 2.90% | 45 | 4.08% | 6.98% | 24 |
| Conn. | 6.00% | 15 | None | 6.00% | 33 |
| Del. | None | 46 | None | None | 47 |
| Fla. | 6.00% | 15 | 0.99% | 6.99% | 23 |
| Ga. | 4.00% | 38 | 2.95% | 6.95% | 25 |
| Hawaii (c) | 4.00% | 38 | 0.35% | 4.35% | 45 |
| Idaho | 6.00% | 15 | 0.03% | 6.03% | 32 |
| Ill. | 6.25% | 12 | 1.97% | 8.22% | 8 |
| Ind. | 7.00% | 2 | None | 7.00% | 19 |
| Iowa | 6.00% | 15 | 0.84% | 6.84% | 26 |
| Kans. | 6.30% | 11 | 1.65% | 7.95% | 12 |
| Ky. | 6.00% | 15 | None | 6.00% | 33 |
| La. | 4.00% | 38 | 4.69% | 8.69% | 4 |
| Maine | 5.00% | 32 | None | 5.00% | 43 |
| Md. | 6.00% | 15 | None | 6.00% | 33 |
| Mass. | 6.25% | 12 | None | 6.25% | 31 |
| Mich. | 6.00% | 15 | None | 6.00% | 33 |
| Minn. | 6.875% | 7 | 0.27% | 7.14% | 17 |
| Miss. | 7.00% | 2 | None | 7.00% | 19 |
| Mo. | 4.225% | 37 | 3.24% | 7.46% | 15 |
| Mont. (e) | None | 46 | None | None | 47 |
| Nebr. | 5.50% | 29 | 0.89% | 6.39% | 29 |
| Nev. | 6.85% | 8 | 1.11% | 7.96% | 11 |
| N.H. | None | 46 | None | None | 47 |
| N.J. | 7.00% | 2 | None | 7.00% | 19 |
| N.M. (c) | 5.125% | 31 | 2.01% | 7.14% | 18 |
| N.Y. | 4.00% | 38 | 4.52% | 8.52% | 6 |
| N.C. | 5.75% | 28 | 2.07% | 7.82% | 13 |
| N.D. | 5.00% | 32 | 0.57% | 5.57% | 39 |
| Ohio | 5.50% | 29 | 1.28% | 6.78% | 27 |
| Okla. | 4.50% | 36 | 3.83% | 8.33% | 7 |
| Ore. | None | 46 | None | None | 47 |
| Pa. | 6.00% | 15 | 0.34% | 6.34% | 30 |
| R.I. | 7.00% | 2 | None | 7.00% | 19 |
| S.C. | 6.00% | 15 | 1.25% | 7.25% | 16 |
| S.D. | 4.00% | 38 | 1.22% | 5.22% | 42 |
| Tenn. | 7.00% | 2 | 2.44% | 9.44% | 1 |
| Tex. | 6.25% | 12 | 1.36% | 7.61% | 14 |
| Utah (b) | 5.95% | 27 | 0.67% | 6.62% | 28 |
| Vt. | 6.00% | 15 | None | 6.00% | 33 |
| Va. (b) | 5.00% | 32 | None | 5.00% | 43 |
| Wash. | 6.50% | 10 | 2.14% | 8.64% | 5 |
| W.Va. | 6.00% | 15 | None | 6.00% | 33 |
| Wis. | 5.00% | 32 | 0.42% | 5.42% | 40 |
| Wyo. | 4.00% | 38 | 1.30% | 5.30% | 41 |
| DC | 6.00% | - | – | 6.00% | – |

# Tavola 11

| State | Sales Tax Collections* ($ thousands) | Sales Tax Per capita | Per capita rank | Sales Taxes as a % of Total State Taxes |
|---|---|---|---|---|
| Alabama | 2 221 506 | 483 | 43 | 26.0% |
| Alaska | 0 | 0 | - | 0.0% |
| Arizona | 5 189 786 | 842 | 15 | 44.3% |
| Arkansas | 2 772 131 | 986 | 8 | 39.8% |
| California | 32 199 800 | 883 | 10 | 28.9% |
| Colorado | 2 105 049 | 443 | 44 | 24.7% |
| Connecticut | 3 040 683 | 868 | 12 | 25.1% |
| Delaware | 0 | 0 | - | 0.0% |
| Florida | 20 788 525 | 1 149 | 5 | 55.9% |
| Georgia | 5 802 913 | 620 | 33 | 34.1% |
| Hawaii | 2 355 316 | 1 832 | 1 | 47.9% |
| Idaho | 1 078 543 | 735 | 27 | 34.3% |
| Illinois | 7 760 590 | 605 | 35 | 27.6% |
| Indiana | 5 334 275 | 845 | 14 | 39.1% |
| Iowa | 1 800 829 | 604 | 36 | 29.4% |
| Kansas | 2 127 597 | 770 | 23 | 33.9% |
| Kentucky | 2 748 643 | 653 | 31 | 27.6% |
| Louisiana | 3 427 486 | 799 | 18 | 35.5% |
| Maine | 1 041 216 | 788 | 20 | 29.0% |
| Maryland | 3 381 694 | 602 | 37 | 23.2% |
| Massachusetts | 4 009 371 | 623 | 32 | 20.7% |
| Michigan | 8 080 905 | 800 | 16 | 34.1% |
| Minnesota | 4 437 407 | 859 | 13 | 25.6% |
| Mississippi | 3 047 837 | 1 047 | 17 | 50.9% |
| Missouri | 3 100 045 | 531 | 40 | 30.5% |
| Montana | 0 | 0 | - | 0.0% |
| Nebraska | 1 409 015 | 797 | 19 | 35.6% |
| Nevada | 3 163 832 | 1 268 | 3 | 51.4% |
| New Jersey | 0 | 0 | - | 0.0% |
| New Hampshire | 6 853 418 | 786 | 21 | 27.6% |
| New Mexico | 1 741 673 | 891 | 9 | 34.1% |
| New York | 11 263 576 | 583 | 38 | 20.6% |
| N. Caroline | 5 021 648 | 567 | 39 | 24.4% |
| N. Dakota | 427 487 | 672 | 30 | 26.4% |
| Ohio | 7 733 133 | 674 | 29 | 31.4% |
| Oklahoma | 1 799 947 | 503 | 42 | 23.1% |
| Oregon | 0 | 0 | - | 0.0% |
| Penn. | 8 403283 | 675 | 28 | 28.9% |
| Rhode Island | 854 257 | 800 | 17 | 31.2% |
| S. Carolina | 3 186 306 | 737 | 26 | 41.1% |
| S. Dakota | 679 162 | 869 | 11 | 57.5% |
| Tennessee | 6 451 838 | 1 068 | 6 | 60.6% |
| Texas | 18 275 210 | 777 | 25 | 49.9% |
| Utah | 1 890 793 | 741 | 25 | 34.6% |
| Vermont | 326 055 | 523 | 41 | 13.5% |
| Virginia | 3 263 647 | 427 | 45 | 19.0% |
| Washington | 10 048 349 | 1 571 | 2 | 61.2% |
| West Virginia | 1 125 766 | 619 | 34 | 24.7% |
| Wisconsin | 4 127 972 | 743 | 24 | 29.9% |
| Wyoming | 624 924 | 1 213 | 4 | 29.4% |
| All States | 226 523 438 | 7 | - | 32.1% |

**Table 12: Possible Forms of Sales Tax at the State Level**

## Possible Forms of Sales Tax at the State Level

**1) National Sales Tax with a Revenue-Sharing Mechanism**

**2) Origin-based Taxes**

- VAT with uniform rates
- VAT with variable rates

**3) Destination-based Taxes**

- Retail Sales Tax
- VAT with uniform rates
- VAT with variable rates

**4) A joint federal-state VAT (dual VAT)**

**Table 13: VAT Rates applied in the Member States, January 2014**

| Member States | Code | Super Reduced Rate | Reduced Rate | Standard Rate | Parking Rate |
|---|---|---|---|---|---|
| Belgium | BE | - | 6 / 12 | 21 | 12 |
| Bulgaria | BG | - | 9 | 20 | - |
| Czech Republic | CZ | - | 15 | 21 | - |
| Denmark | DK | - | - | 25 | - |
| Germany | DE | - | 7 | 19 | - |
| Estonia | EE | - | 9 | 20 | - |
| Greece | EL | - | 6,5 / 13 | 23 | - |
| Spain | ES | 4 | 10 | 21 | - |
| France | FR | 2,1 | 5,5 / 10 | 20 | - |
| Croatia | HR | - | 5 / 13 | 25 | - |
| Ireland | IE | 4,8 | 9 / 13,5 | 23 | 13,5 |
| Italy | IT | 4 | 10 | 22 | - |
| Cyprus | CY | - | 5 / 9 | 19 | - |
| Latvia | LV | - | 12 | 21 | - |
| Lithuania | LT | - | 5 / 9 | 21 | - |
| Luxembourg | LU | 3 | 6 / 12 | 15 | 12 |
| Hungary | HU | - | 5 / 18 | 27 | - |
| Malta | MT | - | 5 / 7 | 18 | - |
| Netherlands | NL | - | 6 | 21 | - |
| Austria | AT | - | 10 | 20 | 12 |
| Poland | PL |  | 5 / 8 | 23 | - |
| Portugal | PT | - | 6 / 13 | 23 | 13 |
| Romania | RO |  | 5 / 9 | 24 | - |
| Slovenia | SI | - | 9,5 | 22 | - |
| Slovakia | SK | - | 10 | 20 | - |
| Finland | FI | - | 10 / 14 | 24 | - |
| Sweden | SE | - | 6 / 12 | 25 | - |
| United Kingdom | UK | - | 5 | 20 | - |

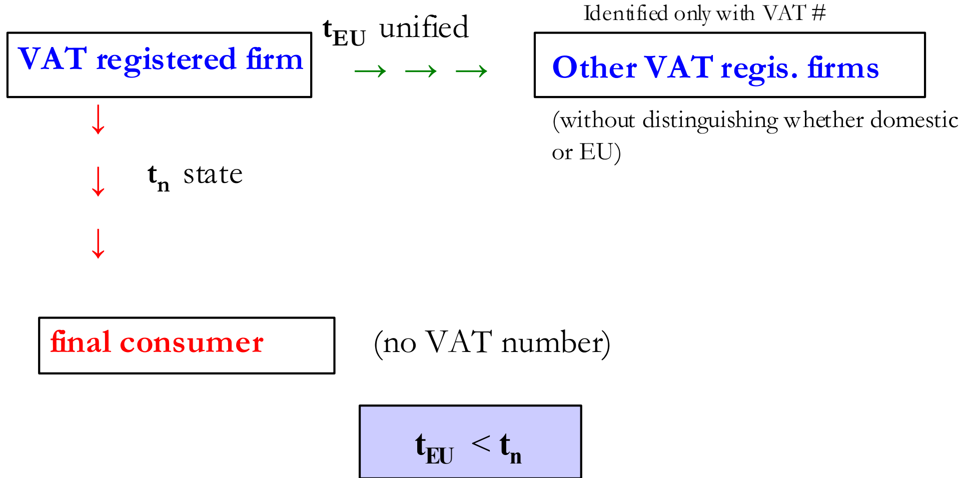
## Table 14: VAT Rates in the EU and in some countries, 2014

| Country | Single Rate | Two Rates | Multiple Rates |
|---|---|---|---|
| **Single Rate** | | | |
| Denmark | 25 | | |
| **Two Rates** | | | |
| Austria | | 20 10 | |
| Bulgaria | | 20 9 | |
| Czech Republic | | 21 15 | |
| Estonia | | 20 9 | |
| Germany | | 19 7 | |
| Latvia | | 21 12 | |
| Netherlands | | 21 6 | |
| Slovenia | | 22 9.5 | |
| United Kingdom | | 20 5 | |
| **Multiple Rates** | | | |
| Belgium | | | 21 6/12 |
| Cyprus | | | 19 5/9 |
| Finland | | | 24 10/14 |
| France | | | 20 2.1/5.5/10 |
| Greece | | | 23 6.5/13 |
| Hungary | | | 27 5/18 |
| Ireland | | | 23 4.8/9/13.5 |
| Italy | | | 22 4/10 |
| Lithuania | | | 21 5/9 |
| Luxembourg | | | 15 3/6/12 |
| Malta | | | 18 5/7 |
| Poland | | | 23 5/8 |
| Portugal | | | 23 6/13 |
| Romania | | | 24 5/9 |
| Slovakia | | | 20 10 |
| Spain | | | 21 4/10 |
| Sweden | | | 25 6/12 |
| **Other OECD Countries** | | | |
| Canada | 5% + provincial rates | | |
| Japan | 5 | | |
| Iceland | | 25.5 7 | |
| Norway | | 25 8/14 | |
| New Zealand | 12.5 | | |
| Australia | 10 | | |

Fonte: EC (2014) and OECD (2014).

**Box 1.**

**Pre-retail VAT + RST**




Tax burden is given only by $t_n$ i.e., rate(s) applied on sales to final consumer

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**Table 6**

**Possible solutions to taxing consumption in the EU**

| taxes | principle applied | state autonomy on rates choice | rate on intra-Comm. supply | clearing mechanism | VAT chain |
|---|---|---|---|---|---|
| RST | destination | **yes** | no | no | no |
| preretail VAT + RST | destination | **yes** | uniform Euro rate | yes | yes |
| Dual VAT | destination | yes, but lower | different | yes | yes |
| CVAT | destination | yes, but lower | different | yes | yes |
| Federal VAT | - | **no** | - | yes but only with revenue redistrib. | yes |

**Table 16**
**Possible solutions for a Eu tax**

| | political feasibility | degree of innovation | administrative functioning | economic effects | federal meaning |
|---|---|---|---|---|---|
| **VAT** | easy | low | good, some problems | positive | high |
| **company tax** | medium | high | medium | positive | high |
| **energy tax** | medium | medium | good | good | medium |
| **custom duties** | medium | low | good | positive | high |
| **some kind of surtax** | low | high | medium | ? | medium |
| **FTT** | low | high | difficult | low | medium |

## References

Amato, G.-Marè, M. (2005) Using a New VAT for Taxing Consumption and Financing the EU Budget, mimeo, Rome, August.

Aujean, M. (1995) “Value Added Tax in the Internal Market: a First Assessment”, *EC Tax Review*, n. 1.

Baldwin, R. (1996) “Discussion”, *Economic Policy*, n. 23, October.

Baldwin, R. (2007) “EU VAT Fraud: part 1-5”, *Vox*, 14-22 June, in www.voxeu.org

Begg, I. (2005) *Funding the European Union: Making Sense of the EU Budget*, A Federal Trust Report on the European Union’s Budget, March.

Berglas, S. (1981), "Harmonization of Commodity Taxes. Destination, Origin and Restricted Origin Principle", Journal of Public Economics, vol. 16.

Bird, R. (1989) “Tax Harmonization in Federations and Common Markets” in M. Neumann-K. W. Roskamp (eds.), *Public Finance and Performance of Enterprises*, Detroit, Wayne State University Press.

Bird, R. (1994) “Cost and Complexity of Canada’s VAT: The GST in International Perspective”, *Tax Notes International*, vol. 8, no.1, January.

Bird, R. (1999) “Rethinking Subnational Taxes: A New Look at Tax Assignment”, *IMF Working Paper*, no. 99, December.

Bird, R.-Gendron, P. (1998) “Dual VATs and Cross-Border Trade: Two Problems, One Solution”, *International Tax and Public Finance*, vol. 5, n. 3, July.

Bird, R.-Gendron, P. (2000) “CVAT, VIVAT, and Dual VAT: Vertical Sharing and Interstate Trade”, International Tax and Public Finance, vol. 7, n. 3, July.

Bird, R.-Gendron, P. (2001) “VATs in Federal States: International Experience and Emerging Possibilities”, Working Paper, Andrew Young School of Policy Studies, Georgia State University, no. 4, April.

Bird, R.-Mintz, J.-Wilson, T. (2006) “Coordinating Federal and Provincial Sales Taxes: Lessons from the Canadian Experience”, National Tax Journal, vol. 59, no. 4, December.

Bonino, E.-De Andreis, M. (2011) “Federation Lite, or what the United States of Europe might look like”, mimeo, December.

Boyer, D.-Russell, S. (1995), “Is it Time for a Consumption Tax?”, National Tax Journal, vol. 48, n. 3, september.

Burgess, R.-Howes, S.-Stern, N. (1995) “Value-Added Tax Options for India”, International Tax and Public Finance, vol. 2, n. 1 May. 88

Buti, M-Nava, M. (2003) Towards a European Budgetary System, CEPS Working Document No.203, Brussels, October.

Cipriani, G.-Marè, M. (2003) La finanza dell'Unione europea tra allargamento e ambizioni, Working Paper SIEP, November.

Cipriani, G.-Marè, M. (2007) Can the EU Budget Be Reformed? , paper presented at the XIX Villa Mondragone International Economic Seminar on The Economic Future of Europe, Rome, June 25-26.

Cipriani, G.-Pisani, S. (2004) The European Budget: An Alternative to Budgetary Balances to Assess Costs and Benefits for the Member States, Working Paper Siep, October 2004.

Cipriani, G. (2006), The Responsibility for implementing the Community budget, CEPS, Working Document No 247, June.

Cipriani, G. (2008), The context for some serious re-thinking of the European Union's budget.

Cnossen, S. (1993), "Harmonization of Indirect Taxes in the EEC", British Tax Review, no. 3.

Cnossen, S. (1998), "Global Trends and Issues in Value Added Taxation", International Tax and Public Finance, vol. 5, n. 3, July.

Cnossen, S. (2002) "Tax Policy in the European Union: A Review of Issues and Options", CESIfo Working Paper, n. 758, August.

Cnossen, S.-Shoup, C. (1987), "Coordination of Value-added Taxes", in S. Cnossen (a cura di) Tax Coordination in the European Communities, Kluwer, Dewenter, Holland.

Commission des Communautés européennes (1996), Un système commun de TVA: Un programme pour le Marché unique, Bruxelles, 22 luglio, COM(96) 328 final.

Commissione delle Comunità Europee (2000), Strategia volta a migliorare il funzionamento del regime Iva nel mercato interno, Comunicazione della Commissione al Consiglio e al Parlamento Europeo, Bruxelles, 7 giugno COM(2000)348 def.

Commissione Europea (2004) Structures of the taxation systems in the EU: 1995-2001- 2003, Brussels.

Congressional Budget Office (1992), Effects of Adopting a Value Added Tax, february, Washington, D.C.

Convenevole, R. (1996) "L'evasione dell'Iva in Italia: a quanto ammonta, come si può contrastarla", mimeo, Secit, Roma.

Convenevole, R. (1997) "L'evidenza empirica dell'evasione Iva in alcuni paesi membri e i suoi legami logici con la problematica della stima esauriente del Pnl", mimeo, Roma, 19 giugno.

Copenaghen Economics (2009) EU Budget Review: Option for Change, The Dutch Ministries of Finance, Economic Affairs and Agriculture, June.

Corte dei Conti Europea (1998) Relazione speciale n° 6/1998 sul bilancio del sistema delle risorse basate sull'IVA e sul PNL, Lussemburgo, http://www.eca.eu/

Corte dei Conti Europea (2000) Relazione speciale n° 17/2000 relativa al controllo, da parte della Commissione, dell'affidabilità e della comparabilità dei PNL degli Stati membri, Lussemburgo.

de Mello, L. (2007) "The Brazilian "Tax War": The Case of Value-Added Tax Competition among the States", *Working Paper Economic Department*, OECD, no. 544, 14 February.

Dosser, D. (1967), "Economic Analysis of Tax Harmonization" in C. Shoup (a cura di) Fiscal Harmonization in Common Markets, New York, Columbia University Press.

Due, J. (1973) "The Case for the Use of the Retail Form of Sales Tax in Preference to the Value Added Tax", in R. Musgrave (a cura di) Broad-Based Taxes. New Options and Sources, John Hopkins University Press, Baltimora.

Due, J. (1987) "The Choice between a Value Added Tax and a Retail Sales Tax", in Report of Proceedings of the 37th Tax Conference, Quebec, Canada, Canadian Tax Foundation..

Due, J. (1988) Indirect Taxation in Developing Countries, John Hopkins University Press, Baltimora.

Due, J. (1990) "Some Unresolved Issues in Design and Implementation of Value Added Taxes", National Tax Journal, n. 4, december.

Ebrill, L.-Keen, M.-Bodin, J.- Summers, V. (2001), The Modern VAT , IMF, Washington, D. C.

Emerson, M. –Aydin, S.-De Clerck-Sachsse, J.-Noutcheva, G.. (2006) Just what is this 'absorption capacity' of the European Union, CEPS Policy Brief, no. 113, September.

European Commission (2007) Vat Rates Applied in the Member states of the European Community, DOC/2137/2007, Brussels, May.

European Commission (1996), A Common System of VAT : A programme for the Single Market, Brussels, 22 July, COM(96) 328 final.

Fehr, H.-Rosenberg, C.-Wiegard, W. (1994), "Should the EU Adopt the Origin Principle for VAT after 1997?", Finanzarchiv, vol. 51.

Feldstein, M.-Krugman, P. (1989) "International Trade Effcets of Value Added Taxation", NBER Working Paper, no. 3163, November

Genser, B.-Haufler, A.-Sorensen, P. (1995), "Indirect Taxation in an Integrated Europe: Is There a Way of Avoiding Trade Distortions without Sacrificing National Tax Autonomy?", Journal of Economic Integration, vol. 10, n. 2, june.

Genser, B. (2003) "Coordinating VATs between EU Member States", International Tax and Public Finance, vol. 10.

Goulard, S.-Nava, M. (2002) Un financement plus démocratique du budget européen : un défi pour la Convention européenne, European Commission, Revue Francaise du Finances Publiques.

Gros, D.-Micossi, S. (2005) A Better Budget for the European Union, CEPS Policy Brief, No. 66, February.

Grossman, G. (1980) "Border Tax Adjustment: Do They Distort Trade?", Journal of International Economics, n. 1 February.

Haufler, A. (1993), Commodity Tax Harmonization in the European Community, Heidelberg, Physica-Verlag.

Hellerstein, W. (2005) "US Subnational States Sales Tax Reform: The Streamlined Sales Tax Project, mimeo, paper presented at International Tax Dialogue VAT Conference, Rome, Italy, March 14-15.

International Tax Dialogue (2005) The Value Added Tax: Experiences and Issues, mimeo, paper presented at International Tax Dialogue VAT Conference, Rome, Italy, March 14-15.

Jimenez, J. P. (2010) Brazilian Subnational VAT: Problems, Proposals for Reform and Prospects, slides presented at the Forum of Federations: Making the 18th Amendment and NFC Award Work, Islamabad, 30-31 October.

Keen, M. (1991), "Aspect of Tax Coordination in the European Communities", IFS Working Paper, n. W91/5, January.

Keen, M. (1993), "The Welfare Economics of Tax Coordination in the European Communities. A Survey", Fiscal Studies, vol. 14, n. 2, May.

Keen, M., (2000) "CVAT, VIVAT, and All That: New Forms of Value-Added Tax for Federal Systems", Canadian Tax Journal, vol. 48, no. 2. 90.

Keen, M., (2002) "Some International Issues in Commodity Taxation", IMF Working Paper, no. 124, July.

Keen, M., (2005) The VAT Experience, paper presented at the International Tax Dialogue VAT Conference, 15-16 March, Rome, mimeo.

Keen, M. (2007) "VAT Attacks!", IMF Working Paper, no. 142, June.

Keen, M.-Lockwood, B. (2007) "The Value Added Tax: Its Causes and Consequences", IMF Working Paper, no. 183, July.

Keen, M.-Smith, S. (1996) "ViVat: an Alternative VAT for the EU", Economic Policy, n. 23, October.

Keen, M.-Smith, S. (2000) "Viva VIVAT", International Tax and Public Finance, vol. 7, n. 3, July.

Keen, M.-Smith, S. (2007) "VAT Fraud and Evasion: What Do We Know, and What Can Be Done?", IMF Working Paper, no. 31, February.

King, D. (1984) Fiscal Tiers,

Lauré, M. (1993), Science Fiscale, Paris, Presses Universitaires de France.

Leccisotti, M.-Marè, M. (1992), "On the Presumed Technical Superiority of VAT", Australian Tax Forum, vol. 9, n. 3.

Le Cacheux, J. (2005) Budget européèn: le poison du juste retour, Notre Europe, Etudes et Recherches n. 41,

Le Cacheux, J. (2007) Funding the EU Budget with a Genuine Own Resource: The Case for a European Tax, Notre Europe, Studies n. 57, May.

Lefebvre, M. (2005) (ed.) What Kind of European Budget for 2013?, CEES and IFRI, Paris

Lockwood, B. (1991), "Border Controls and Tax Competition in a Custom Union", Center for Economic Research, Discussion Paper, n. 9140, September.

Lockwood, B. (1993), "Commodity Tax Competition under Destination and Origin Principles", Journal of Public Economics, vol. 52, n. 2, September.

Lockwood, B.-De Meza, B.-Myles, G. (1994a), "When the Origin and Destination Regimes are Equivalent?", International Tax and Public Finance, vol. 1, n. 1, May.

Lockwood, B.-De Meza, B.-Myles, G. (1994b), "The Equivalence between Destination and Non-Reciprocal Restricted Origin Tax Regimes", Scandinavian Journal of Economics, vol. 96, n. 3.

Lockwood, B.-De Meza, B.-Myles, G. (1995), "On the European Union VAT Proposals: The Superiority of Origin over Destination Taxation", Fiscal Studies, vol. 16, n. 1.

Longobardi, E. (1990), "L'Iva verso il '92 e oltre: un tributo europeo tra esigenze nazionali e inziativa comunitaria" in A. Majocchi-G. Tremonti (a cura di) Le imposte del 1992, Milano, Angeli.

MacDougall D. (1977) Report of the Study Group on the Role of the Public Finance in European Integration, European Commission, Brussels.

McLure, C. (1993) “Economic, Administrative, and Political Factors in Choosing a general Consumption Tax”, National Tax Journal, vol. 46, n. 3, september.

McLure, C. (2000a) “Implementing Subnational Value Added Taxes on International Trade: The Compensating VAT (CVAT)”, International Tax and Public Finance, vol. 7, n. 3, July.

McLure, Charles E., Jr. (2000b). “Tax Assignment and Subnational Fiscal Autonomy” Bulletin for International Fiscal Documentation.

McLure, Charles. (2001) “The Tax Assignment Problem: Ruminations on How Theory and Practice Depend on History”, National Tax Journal, vol. 54, no. 2.

McLure, Charles (2005) “Coordinating State Sales Taxes with a Federal VAT: Opportunities, Risks, and Challenges” paper presented at the Symposium on Federal Tax Reform and the States, National Press Club, Washington, DC, May 18.

Marè, M.-Sarcinelli, M.(1991), "È l'Iva compatibile con il mercato unico del 1992?", Politica economica, n. 2, agosto.Marè, M. (2002) La tassazione dei consumi nell'UE: prelievo statale o imposta federale?, mimeo, SECIT, Ministero dell'Economia e delle Finanze, Roma, 10 giugno.

Marè, M. (2003) "La tassazione nell'Unione Europea: quale coordinamento? Quanta concorrenza?", CNEL Rapporto di ricerca, 3 July 2003.

Marè, M. (2006) "A New VAT for the European Union: Taxing Consumption and Financing the Budget", in G. Brosio-G. Muraro (eds.) Il finanziamento del settore pubblico, Milano, F. Angeli.

Marè, M. (2014) Subnational Consumption Taxes, in Gandullia, L.-Marè, M.-Piacentino, D.,*The Role of Taxes in Fiscal Decentralization*, Oecd, Paris, forthcoming.

Marè, M.-Sarcinelli, M.(1991), "È l'Iva compatibile con il mercato unico del 1992?", Politica economica, no. 2, August.

Marè, M.-Sarcinelli, M. (1998), Europa: cosa ci attende? Roma, Laterza.

Marè, M-Vitaletti, G. (1996), "La tassazione dei consumi nell'Unione Europea: effetti economici e ipotesi di riforma", Il Fisco, n. 15, 15 April.

Marè, M.-Vitaletti, G. (2000), "A Solution to the Definitive VAT Regime of the European Union", mimeo, December.

Messere, K. (1994) "Consumption Tax Rules", Bulletin for International Fiscal Documentation, vol. 48, n. 12, December.

Metcalf, G. (1995), "Value Added Taxation: A Tax whose Time has come", Journal of Economic Perspectives, vol. 9, n. 1, winter.

Mikesell, J. (1997) "The American Retail Sales Tax: Consideration on their Structure, Operations, and Potential as a Foundation for a Federal Sales Tax", National Tax Journal, vol. 50, no. 1, March.

Mora, M-Varsano, R. (2001) Fiscal Decentralization and Subnational Fiscal Autonomy in Brazil: Some Facts of the Nineties", Texto Para Discussao, n. 854, Rio de Janeiro, December.

Musgrave, R. (1959) The Theory of Public Finance, New York, McGraw Hill.

Musgrave, R. (1969) Fiscal Systems, New Haven, Yale University Press.

Musgrave, R. (1983) "Who Should Tax, Where and What?", in Tax Assignment in Federal Countries, a cura di Charles McLure, Centre for Research on Federal Financial Relations, Australian National University, Canberra.

Musgrave, R.-Musgrave, P. (1973), Public Finance in Theory and Practice, New York, McGraw-Hill.

Musgrave, P. (1987) "Interjurisdictional Coordination of Taxes on Capital Incomes", in S. Cnossen (a cura di) Tax Coordination in the European Community, Kluwer Dewenter.

Musgrave, P. (2001)

Neumark, F. (1963) Report to the Fiscal and Monetary Committee (Neumark Report), CEE Commission, Bruxelles.

Oates, W. (1968) “The Theory of Public Finance in a Federal System”, Canadian Journal of Economics, vol. 1, n. 1 February.

Oates, W. (1972) Fiscal Federalism, New York, Harcourt Brace.

Oates, W. (1977a) “Fiscal Federalism in Theory and Practice: Application to the European Community”, in McDougall (1977).

Oates, W. (1977b) “An Economist’s Perspective on Fiscal Federalism” in W. Oates (ed.) The Political Economy of Fiscal Federalism.

Oates, W. (1999), “An Essay on Fiscal Federalism”, Journal of Economic Literature, vol. 37, September. 92

Oates, W. (2002) “Fiscal Federalism and European Union: Some Reflections”, mimeo, September, SIEP, Pavia.

Oecd (2005) Consumption Tax Trends, 2004 edition, Paris.

Oecd (2006) Consumption Tax Trends, 2006 edition, Paris.

Olson, M. (1969) “The Principle of Fiscal Equivalence: The Division of Responsibilities Among Different Levels of Governments”, American Economic Review,P&P, , vol. 59.

Poddar, S. (1988) “Issues in Integration of Federal and Provincial sales Taxes: A Canadian Perspective”, National Tax Journal, September, vol. 41, no. 3

Poddar, S. (1990) "Value-Added Tax at the State Level," in Malcolm Gillis, Carl S. Shoup, and Gerardo P. Sicat (eds.), Value Added Taxation in Developing Countries, Washington: The World Bank, 1990.

Quigley, D. (1995) “Enterprise in the Single Market: The Definitive VAT Regime”, EC Tax Review, n. 1.

Raponi, D. (1996) “A Programme for a new Common System of VAT”, EC Tax Review, n.3.

Rezk, E. (2000) “Federalism and Decentralization Under Convertibility: Lessons from the Argentine Experience”, IMF Seminar on Decentralization, Washington, D.C.

Sapir, A. (2003) An Agenda for a Growing Europe, Report of an Independent High-Level study Group established on the initiative of the President of the European Commission, European Commission, Brussels, July.

Sharma, C. K. (2004) Implementing VAT in India: Implications for Federal Polity, The Indian Journal of Political Science, vol. LXVI, No 4, December, pp. 915-934.

Shibata, H. (1967) “The Theory of Economic Unions; A Comparative Analysis of Custom Unions, Free Trade Areas, and Tax Unions” in C. Shoup (a cura di) Fiscal Harmonization in Common Markets, New York, Columbia University Press.

Shoup, C. (1969), Public Finance, Chicago, Aldline.

Shoup, C. (1973) “Factors Bearing on an Assumed Choice between a Federal Retail Sales Tax and a Federal Value Added Tax”, in R. Musgrave (ed.) Broad-Based Taxes. New Options and Sources, John Hopkins University Press, Baltimore.

Shoup, C. (1990) “Choosing among Types of VATs”, in M. Gillis-C. Shoup-G. Sicat (a cura di) Value Added Taxation in Developing Countries, World Bank, Washington, D.C. 93

Sinn, H. W. (1993) “How Much Europe? Subsidiarity, Centralization and Fiscal Competition”, CEPR Discussion Paper, n. 834, September.

Smith, S. (1997) The Definitive Regime for VAT, Institute for Fiscal Studies, Commentary 63, London.

Tabellini, G. (2002) “Principles of Policymaking in the European Union: an Economic Perspective, mimeo, Bocconi University, October.

Terra, B. (1996) “A Common System of VAT. A Programme for the Single Market”, VAT Monitor, vol. 7, n. 5, September-October.

Vanistendael, F. (1995) “A Proposal for a Definitive VAT System Taxation in the Country of Origin at the Rate of the Country of Destination, Without Clearing”, EC Tax Review, n. 1.

Varsano, R. (1995), “A Tributacao do Comercio Interstadual: ICMS versus ICMS partilhadp”, Texto para Discussao, n. 382, Istituto de Pesquisa Economica Aplicada, Brasilia.

Varsano, R. (1999) “Subnational Taxation and Treatment of Interstate Trade in Brazil: Problems and a Proposed Solution”, mimeo.

Whalley, J. (1979), "Uniform Domestic Tax Rates, Trade Distortions and Economic Integration", Journal of Public Economics, n. 11.