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EUROPEAN PARLIAMENT

DIRECTORATE GENERAL INTERNAL POLICIES OF THE UNION

Budgetary Support Unit

FUTURE OWN RESOURCES

BUDGETARY AFFAIRS

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Brussels, European Parliament, 2007

Future Own Resources

External Study on the Composition of Future Own Resources

for the European Parliament, Directorate General Internal Policies

(Final Report)

Executive Summary

Following the 2005 study undertaken by the Study Group for European Policy to consider possible alternatives to the procedures currently used for the determination of the contributions of each Member State to the EU budget, Deloitte was asked by the European Parliament, Directorate General for Internal Policies, to collect quantitative information on the revenues of the four leading candidate taxes, as identified by the Study Group, for as many Member States as possible.

The revenues from each tax were then assessed to determine:

- **Revenue share**: the share of revenues from the candidate tax that would be required to fully match each Member State's contribution to the EU budget, excluding Traditional Own Resources. Each Member State's share is also compared with the EU average revenue share. For comparison purposes, we have also calculated the revenue share that would be required if each Member State's contribution was equal to the same proportion of GDP, equal to the current EU average of 0.80%.
- **Sufficiency**: an indicator of the ability of each Member State's candidate tax base to fully support the existing level of budget contribution, net of Traditional Own Resources. For the purpose of our analysis, for each tax we assume that if all Member States can raise revenues that exceed the transfer that would be required to match their contribution to the EU budget, then that tax fulfils the sufficiency criterion.
- **Stability**: for the purpose of our analysis, we assessed stability by reference to the relationship between each Member State's tax revenues and its economic performance. In our analysis, stability is measured by calculating the correlation between revenues and GDP per capita in the period 2000 – 2005.

Our analysis has shown that VAT appears to be the only tax that fulfils both sufficiency and stability criteria. In addition, the share of total revenues that would be required to match the current contributions to the EU budget (net of Traditional Own Resources) is smaller than for all the other candidate taxes. The results of the analysis are summarised in the following table.

Tax	**Sufficiency**	**Stability**
VAT	Fulfilled	Fulfilled
Excise Duty on Motor Fuel	Partially fulfilled	Partially fulfilled
Excise Duties on Alcohol and Tobacco	Not fulfilled	Partially fulfilled
Tax on Corporate Profit	Fulfilled	Not fulfilled

Value Added Tax: this tax appears to fulfil both the sufficiency and stability criteria. The required share of revenues is always below 25% and, in almost all Member States, the correlation with GDP per capita is high.

Excise duty on motor fuel for road transport: in two Member States (Ireland and the Netherlands), this tax does not raise sufficient revenues. Most of the remaining member states would need to transfer between 50% and 75% of their revenues, but some countries would require more. Correlation with GDP per capita is generally high, although in some cases it is below 50%.

Excise duties on alcohol and tobacco: in nine Member States, this tax does not raise sufficient revenues and for several of the other countries the required share would be larger than 75% of total revenues. Correlation with GDP per capita is generally high, although it is negative in Denmark, Finland and Sweden.

Corporate profit tax: the revenues from this tax appear to be sufficient in all Member States. Most Member States would need to transfer between 25% and 50% of their revenues. In nine Member States correlation with GDP per capita is negative, suggesting low stability of revenues.

Résumé exécutif

Suite à l'étude réalisée en 2005 par le Groupe d'Etude sur la Politique européenne ayant pour objet d'examiner les alternatives possibles aux procédures actuelles visant à déterminer la contribution de chaque Etat Membre au budget de l'Union européenne, la Direction Générale « Politiques internes » du Parlement européen, a chargé la société Deloitte de collecter des informations quantitatives sur les revenus générés par les quatre principales impositions pressenties, identifiées par le Groupe d'Etude, dans le plus grand nombre possible d'Etats Membres.

Les revenus issus de chacune de ces impositions ont été évalués afin de déterminer :

- **la part des revenus** : la part des revenus des impositions pressenties nécessaire pour atteindre la contribution de chaque Etat membre au budget de l'Union, hors Ressources Propres Traditionnelles. La part de chaque Etat Membre a également été comparée avec la part moyenne européenne. Pour les besoins de la comparaison, nous avons calculé la part des revenus qui serait requise si la contribution de chaque Etat Membre était égale à la même proportion du PIB, soit la moyenne européenne actuelle de 0,8% ;
- **la suffisance** : un indicateur basé sur l'aptitude, dans chaque Etat Membre, de l'assiette de l'imposition pressentie à supporter pleinement le niveau actuel de contribution au budget de l'Union européenne, hors Ressources Propres Traditionnelles. Dans le cadre de notre analyse, nous supposons que si chaque Etat Membre peut générer, par une imposition, des revenus qui excèdent le transfert correspondant à leur contribution au budget de l'Union, alors, cette imposition obéit au critère de suffisance.
- **la stabilité** : pour les besoins de notre analyse, nous avons évalué la stabilité comme la relation entre les revenus de l'imposition et la performance économique de l'Etat Membre. Dans notre analyse, la stabilité est mesurée en calculant la corrélation entre les revenus de l'imposition et le PIB par habitant dans la période 2000-2005.

Notre analyse a démontré que la TVA apparaît comme étant la seule imposition qui remplit simultanément les critères de suffisance et de stabilité. En outre, la part des revenus totaux correspondant à la contribution actuelle au budget de l'Union (hors Ressources Propres Traditionnelles) est plus petite que celle des autres impositions pressenties. Les résultats de l'analyse sont synthétisés dans le tableau ci-dessous.

Taxe	**Suffisance**	**Stabilité**
TVA	Rempli	Rempli
Droits d'accises sur les carburants	Partiellement rempli	Partiellement rempli
Droits d'accises sur les alcools et le tabac	Non rempli	Partiellement rempli
Impôts sur les revenus des sociétés	Rempli	Non rempli

Taxe sur la valeur ajoutée : cette taxe remplit à la fois les critères de suffisance et de stabilité. La part des revenus requis est toujours inférieure à 25% et la corrélation avec le PIB par habitant est très élevée dans la quasi-totalité des Etats Membres.

Droits d'accises sur les carburants destinés au transport routier: dans deux Etats Membres (Irlande et les Pays-Bas), cette imposition ne génère pas des revenus suffisants. La plupart des autres Pays Membres devraient transférer entre 50% et 75% de leurs revenus, voire davantage dans certains pays. La corrélation avec le PIB par habitant est généralement élevée, bien qu'en dessous de 50% dans certains cas.

Droits d'accises sur les alcools et le tabac : dans neuf Etats Membres, cette imposition ne génère pas de revenus suffisants et, dans plusieurs autres pays, la part nécessaire pour atteindre la contribution au budget de l'Union devrait être de plus de 75% des revenus totaux. La corrélation avec le PIB par habitant est généralement haute, à l'exception du Danemark, de la Finlande et de la Suède où l'on observe une corrélation négative.

Impôt sur les revenus des sociétés : les revenus générés par ces impôts sont suffisants dans tous les Etats Membres. La plupart des pays devraient transférer entre 25% et 50% de leurs revenus. Dans neuf Etats Membres, la corrélation avec le PIB par habitant est négative, ce qui suggère une faible stabilité des revenus.

Zusammenfassung

Im Anschluss an die 2005 durchgeführte Studie der Arbeitsgruppe für Europapolitik, die sich mit Alternativen zum momentanen Bestimmungsverfahren des Beitrags der Mitgliedsstaaten zum Budget der EU beschäftigt, wurde Deloitte vom Europäischen Parlament (Generaldirektion Interne Politikbereiche) beauftragt, für so viele Mitgliedsstaaten wie möglich quantitative Informationen zu Einnahmen aus vier von der Arbeitsgruppe für Europapolitik identifizierten Steuern zu erstellen.

Die Einnahmen aus jeder dieser Steuern wurden analysiert, um eine Bewertung in den Folgenden Kategorien abgeben zu können:

- **Anteil an den Einnahmen**: der Anteil an den Einnahmen der möglichen Steuern, der benötigt würde, um den Beitrag jedes Mitgliedsstaats zum EU Budget, abzüglich der traditionellen Eigenmittel, komplett zu decken. Der Anteil der Einnahmen jedes einzelnen Mitgliedstaates wird auch mit dem durchschnittlichen Anteil an den Einnahmen in der gesamten EU verglichen. Zusätzlich wurde zu Vergleichszwecken der Anteil der Einnahmen berechnet, der notwendig wäre, wenn der Mitgliedsbeitrag jedes Mitgliedsstaates dem momentanen durchschnittlichen europäischen Mitgliedsbeitrag von 0,80% des BIP entsprechen würde.
- **Hinlänglichkeit**: ein Indikator für die Möglichkeit eines jeden Mitgliedsstaats den eigenen Mitgliedsbeitrag (abzüglich der traditionellen Eigenmittel) durch die möglichen Steuern vollständig abzudecken. In unserer Analyse gilt eine Steuer als hinlänglich, falls alle Mitgliedsstaaten durch diese Steuer Einnahmen erzielen können, die größer sind als ihr Beitrag zum EU Budget.
- **Stabilität**: in unserer Analyse bewerten wir Stabilität unter Zuhilfenahme eines Zusammenhangs zwischen Steuereinnahmen und Wirtschaftsleistung in jedem Mitgliedsstaat. In unserer Analyse wird Stabilität als Korrelation zwischen Steuereinnahmen und Bruttoinlandsprodukt (BIP) pro Kopf im Zeitraum 2000-2005 gemessen.

Unsere Analyse zeigt, dass die Mehrwertssteuer die einzige Steuer ist, die sowohl unsere Kriterien der Stabilität, als auch der Hinlänglichkeit erfüllt. Zusätzlich ist der Anteil der Gesamteinnahmen, der notwendig wäre um die Beiträge zum EU Budget (abzüglich der traditionellen Eigenmittel) abzudecken, bei der Mehrwerststeuer kleiner ist als bei den anderen möglichen Steuern. Die folgende Tabelle fasst unsere Ergebnisse zusammen.

Steuer	**Hinlänglichkeit**	**Stabilität**
Mehrwertsteuer	Erfüllt	Erfüllt
Mineralölsteuer	Teilweise erfüllt	Teilweise erfüllt
Alkohol und Tabaksteuern	Nicht erfüllt	Teilweise erfüllt
Körperschaftssteuer	Erfüllt	Nicht erfüllt

Mehrwertsteuer: diese Steuer scheint sowohl hinlänglich, als auch stabil zu sein. Der benötigte Anteil an den Einnahmen liegt in jedem Mitgliedsstaat unter 25% und in fast allen Mitgliedsstaaten ist die Korrelation mit dem BIP pro Kopf sehr hoch.

Mineralölsteuer: in zwei Mitgliedsstaaten (Irland und den Niederlanden) erzielt diese Steuer ungenügende Einnahmen und kann daher nicht als hinlänglich bezeichnet werden. In den meisten der anderen Mitgliedsstaaten müssten zwischen 50% und 75% der Einnahmen an die EU überwiesen werden. In manchen Mitgliedsstaaten wäre dieser Anteil allerdings höher. Die

Korrelation mit dem BIP pro Kopf ist im Allgemeinen relativ hoch. In einigen Mitgliedsstaaten liegt sie hingegen unter 50%.

Alkohol und Tabaksteuern: in neun Mitgliedsstaaten erzielen diese Steuern ungenügende Einnahmen und in einigen anderen Ländern müssten mehr als 75% der Gesamteinnahmen aus diesen Steuern an die EU überwiesen werden. Die Korrelation mit dem BIP pro Kopf ist im Allgemeinen hoch. In Dänemark, Finnland und Schweden ist sie allerdings negativ.

Körperschaftssteuer: die Einnahmen aus der Körperschaftssteuer scheinen in allen Mitgliedsstaaten hinlänglich zu sein. Die meisten Länder müssten zwischen 25% und 50% ihrer Einnahmen an die EU überweisen. In neun Mitgliedsstaaten ist die Korrelation mit dem BIP pro Kopf negativ, was eine geringe Stabilität der Einnahmen nahe legt.

Summary of Main Results

Background

At present, the budget of the EU is obtained from three different sources:

- **Traditional Own Resources**: these consist of Customs Duties and Agricultural Resources (which are custom duties on agricultural products imported from non-member countries). The Treaty of Rome earmarked custom duties as the principal resource to be assigned to the European Economic Community (EEC). Since 2000, Member States are allowed to retain 25% of Traditional Own Resources to cover collection costs.
- **Value Added Tax**: VAT resources were introduced in 1970 because the Traditional Own Resources were not sufficient to finance the Community budget. However, the need to harmonise the VAT base resulted in this resource not coming into being until 1980. This resource is obtained by applying a given rate to a base determined in a uniform manner. Since 2000, the maximum applicable rate cannot exceed 0.5% of the harmonised and capped VAT Base.
- **Gross National Income**: The GNI-based resource was introduced in 1988. It is obtained by applying a rate, fixed each year under the budget procedure, to a base representing the sum of the gross national incomes at market prices. It is calculated by reference to the difference between expenditure and the yield of all the other own resources. It is the "key" resource, not only because it finances the bulk of the budget but also because it determines the cap on the VAT base, how the cost of the UK rebate is shared out, and the ceiling on total resources that the Community can receive.

Figure 1 provides an illustration of the breakdown of the EU budget by source.

Figure 1 – Breakdown of EU budget sources

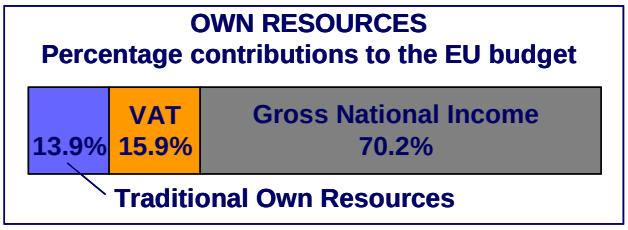
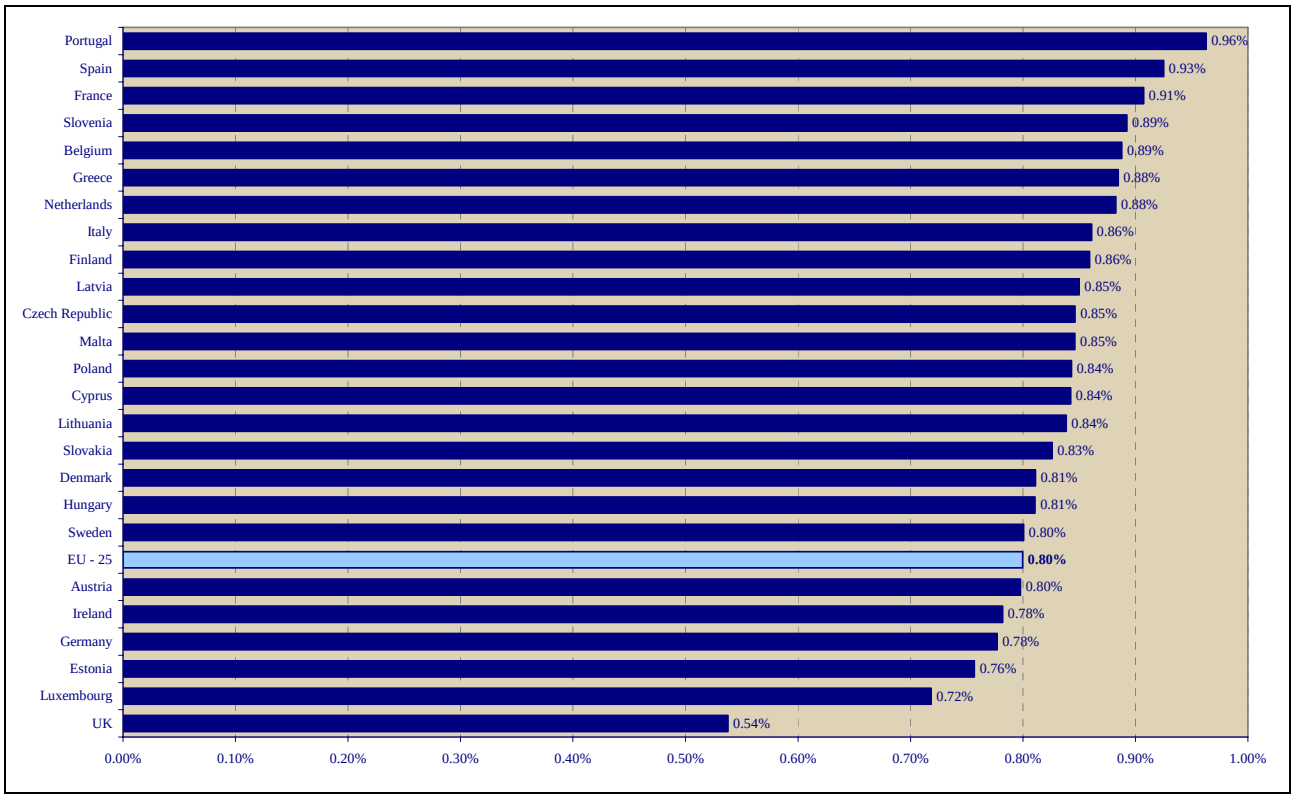


Figure 2 shows the most recent contributions ([1]) of each individual Member State to the EU budget, net of Traditional Own Resources and after the UK rebate ([2]) has been applied. Contributions range from 0.96% of GDP for Portugal to 0.54% of GDP for the United Kingdom. The average of the 25 Member States is equal to about 0.80% of total EU GDP (Bulgaria and Romania had not yet joined the EU when this information was published).

[1] European Court of Auditors, *Annual Report concerning the financial year 2005*, p. 243, available at: http://eca.europa.eu/audit_reports/annual_reports/docs/2005/ra05_en.pdf

[2] The UK has been granted a rebate since 1984, when it had one of Europe's lowest per capita incomes. At that time, the EU budget was mainly financed with VAT resources and the UK had a larger VAT base than other Member States, but, with a proportionately smaller agricultural sector, it benefited less from the Common Agricultural Policy.

Figure 2 – Contributions of individual Member States as percentage of their GDP (net of TOR and UK rebate)



In 2005, the European Parliament asked the Study Group for European Policy (**"SEP")** to consider possible alternatives to the procedures currently used for determining the contributions of each Member State to the EU budget. Their objective was to suggest improvements to the current funding arrangement in response to a larger European Union and potential budgetary imbalances. The report, *Own Resources: Evolution of the system in a EU of 25* ([3]), concluded that the most satisfactory method would to be based on the adoption of an EU-wide own tax resource.

On the basis of a series of criteria, four leading candidate taxes were selected: these are Value Added Tax, Excise Duty on Motor Fuel, Excise Duties on Alcohol and Tobacco and Taxes on Corporate Profits.

Purpose of this study

Deloitte was asked by the European Parliament, Directorate General for Internal Policies, to collect quantitative information on the revenues of the four leading candidate taxes for as many Member States as possible.

The revenues from each tax were then assessed to determine:

- **Revenue share**: the share of revenues from the candidate tax that would be required to fully match each Member State's current contribution to the EU budget, excluding Traditional Own Resources. Each Member State's share is also compared with the EU average revenue share. For comparison purposes, we have also calculated the revenue share that would be required if each Member State's contribution was equal to the same proportion of GDP; specifically the current EU average of 0.80%.
- **Sufficiency**: an indicator of the ability of each Member State's candidate tax base to fully support the existing level of budget contribution, net of Traditional Own Resources. For the

[3] Study Group for European Policies (SEP), *Own Resources: Evolution of the system in a EU of 25*, Brussels, 2005

purpose of our analysis, for each tax we assume that if all Member States can raise revenues that exceed the transfer that would be required to match their contribution to the EU budget, then that tax fulfils the sufficiency criterion.

- **Stability**: for the purpose of our analysis, we assessed stability by reference to the relationship between each Member State's tax revenues and its economic performance. In our analysis, stability is measured by calculating the correlation between revenues and GDP per capita in the period 2000 – 2005.

An illustration of the analysis is provided in the following example.

EXAMPLE 1

We take the example of Germany and VAT to illustrate the analysis that we undertook for all candidate taxes and for all Member States.

In 2005, Germany's contribution to the EU budget (net of Traditional Own Resources) was approximately EUR 17.4 billion (about 20% of total budget), making it the largest contributor to the EU. Under the current system, such contribution would partly be funded using VAT revenues and partly come from other sources, calculated as a percentage of the country's GNI.

Let us now assume that the entirety of Germany's contribution is funded using VAT revenues. Given that Germany's total VAT revenues in 2005 were about EUR 136.8 billion, Germany would require only about 12.7% of its total VAT revenues to match its 2005 contribution to the EU. This is Germany's REQUIRED REVENUE SHARE for VAT.

In order to assess the SUFFICIENCY of the tax (in this case, VAT), we repeat the same calculation for all Member States. We find that, on average, Member States would need to transfer about 10.4% of their revenues, and no Member State would need to transfer more than 13%. Hence, the revenues from VAT appear to fulfil the SUFFICIENCY CRITERION.

Finally, we need to assess whether the revenues from VAT are STABLE. To do so, we calculate the correlation between revenues and GDP per capita for each Member State for the period 2000 – 2005. Correlation is only a proxy for STABILITY, but provides an useful indication. In Germany, the correlation is equal to 93.5%. In the EU, on average, correlation is equal to 93%. These values suggest a high degree of correlation, hence the revenues from VAT appear to fulfil the STABILITY criterion.

Data

We collected revenue data for the period 2000 – 2005, exclusively from publicly available sources. These include National Statistical Offices, National Ministries of Finance and Eurostat. The data required for the analysis were identified using the ESA95 classification criteria to ensure consistency in the data collection process and data comparability. We have used this information as it was provided to us by the individual Member States. We have not checked or otherwise verified these data.

Table 1 lists the information collected and the corresponding ESA95 code.

Table 1 – ESA95 classification of taxes examined

Tax	ESA95 code
Value Added Tax	d211
Excise duties on motor fuel for road transport	d214a
Excise duties on tobacco and alcohol	d214a
Tax on corporate profits	d51b + d51c2

Whenever possible, the analysis included data for Bulgaria and Romania, which joined the EU on January 1st 2007. The analysis was undertaken under the assumption that their contribution to the EU budget as a percentage of GDP would be in line with the current average contribution of the

other 25 Member States.

The results of our analysis are summarised in the remainder of this Executive Summary. For each tax we provide:

- an estimation of the required revenue share that each Member State would need to transfer to the EU if all contributions were to originate exclusively from that tax;
- a comparison of the fulfilment of the sufficiency criterion across all Member States; and,
- a comparison of the fulfilment of the stability criterion across all Member States.

For VAT, whenever possible, we also collected information regarding the breakdown of revenues into its domestic and non-domestic components. It should be noted, however, that only 17 Member States were able to provide the required information. We present the results of this analysis in the following section.

Limitations

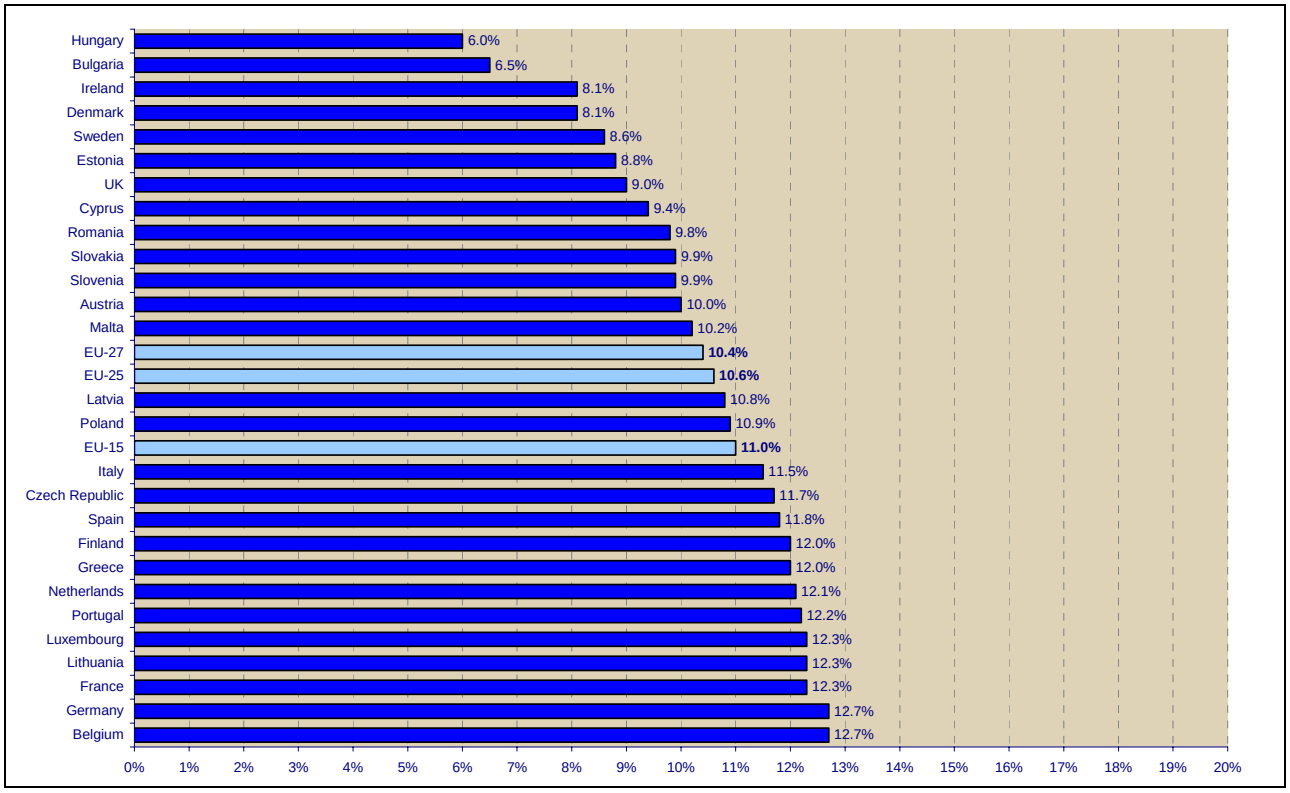
We draw the reader's attention to the limitations of our analysis described in Section 1.5 of the Technical Annex

VAT

Required revenue share

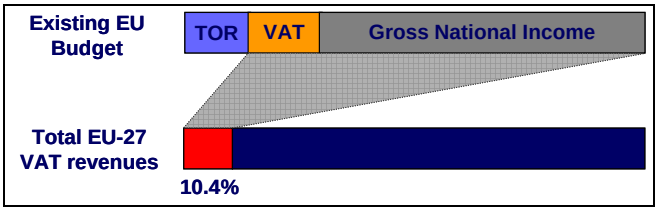
Figure 3 compares the share of VAT revenues that each Member State would need to dedicate to the EU budget, if the current system (net of Traditional Own Resources), were to be replaced entirely by VAT revenues.

Figure 3 – Required VAT revenue share



The EU-15 average is approximately 11.0%, while the EU-25 average is 10.6%. If all 27 Member States are included, only 10.4% of total European VAT revenues would be required to replace the existing VAT and GNI own resources, as shown in Figure 4.

Figure 4 – Average required share of VAT revenues

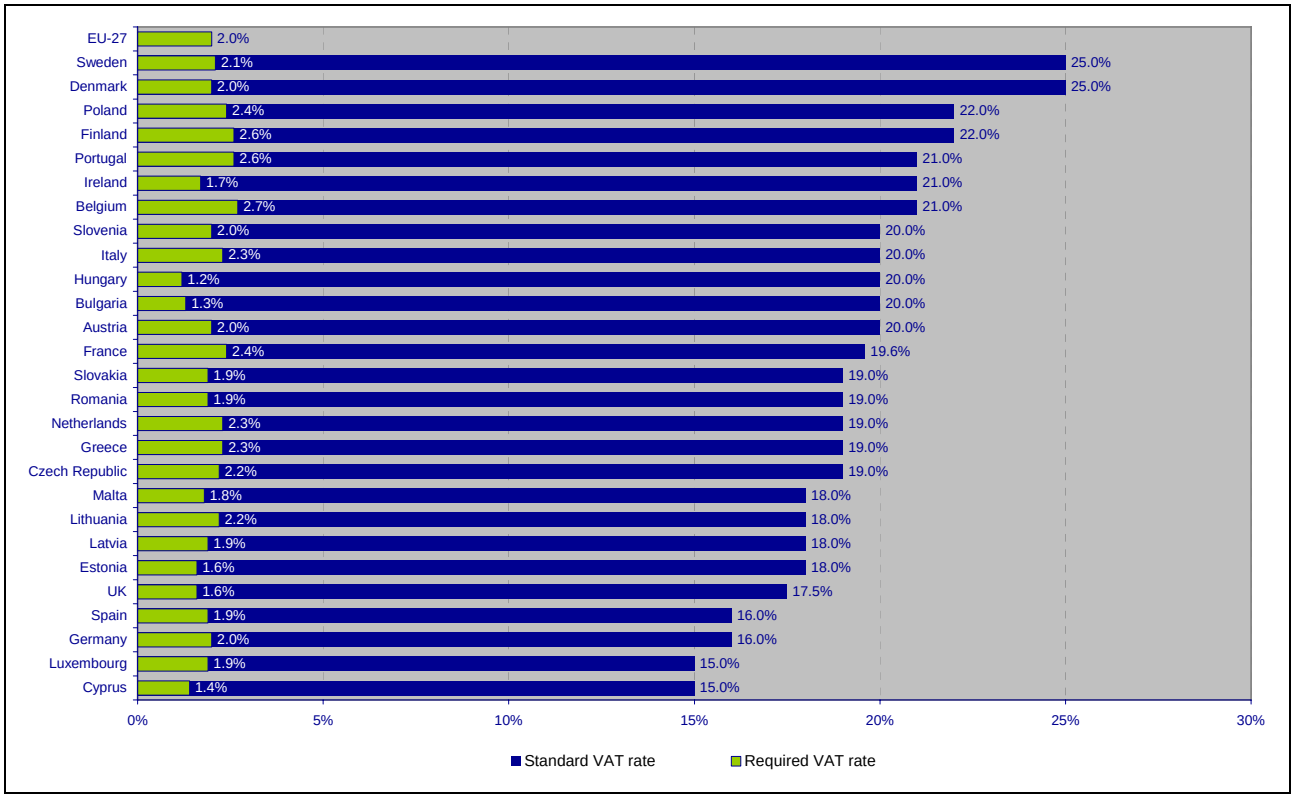


The required revenue share ranges from 6.0% for Hungary to 12.7% for Belgium and Germany. There may be several reasons for this variability, including the relative size of EU budget contribution, the differences in actual VAT revenues that depend on the VAT rates, the application of discounts and the effectiveness of each Member State in collecting the tax.

Figure 5 shows the VAT rates that would be required in each Member State to raise revenues sufficient to match each country's existing contribution to the EU Budget (net of Traditional Own Resources). This calculation assumes that all VAT revenues are raised by applying each Member State's standard VAT rate. Reduced and super-reduced rates have been ignored for simplicity.

The average required rate is equal to about 2.0 percentage points. The required rates range from 1.2 percentage point in Hungary to 2.7 percentage points in Belgium.

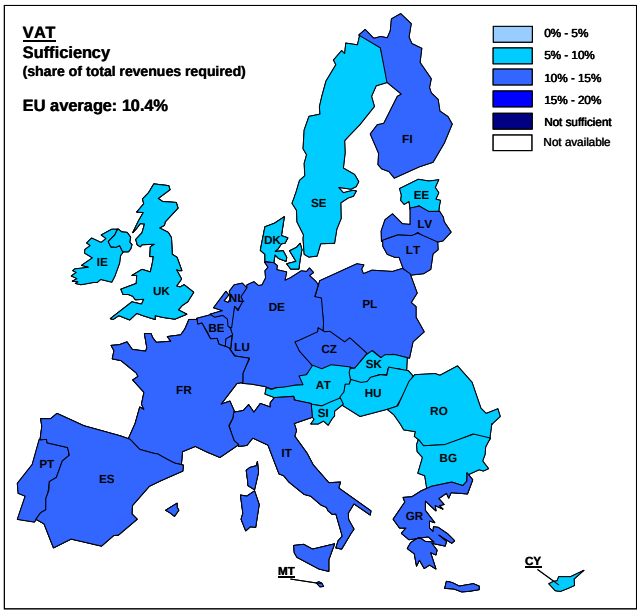
Figure 5 – Required VAT rates vs. standard VAT rates



Sufficiency

Figure 6 provides a comparison of the level of sufficiency of VAT revenues in all 27 Member States. As shown in the figure, in all Member States the share of VAT revenues that would be required to match their respective contributions to the EU budget (net of Traditional Own Resources) is always below 15%. Therefore, the sufficiency criterion appears to be fulfilled in all countries.

Figure 6 – Sufficiency of VAT



The EU-27 average VAT revenue share is 10.4%. As shown in Figure 5, this translates into an average VAT rate of 2.0%. The example below shows how this may be applied in a Member State where the VAT rate is currently 20%.

EXAMPLE 2

In the current situation, if the VAT rate is equal to 20%, a good costing EUR 10.00 would attract a total VAT equal to EUR 2.00. Hence, a consumer would pay a final price of EUR 12.00

If the EU was funded through VAT revenues, a share of this VAT would be transferred directly to the EU. Given that, on average 10.4% of VAT revenues would be required to match the current budget contributions, this would translate into a required VAT rate equal to 2%. Therefore, assuming that the final price of the good did not change, the final consumer would pay:

- EUR 10.00 equal to the price of the good purchased;

- EUR 1.80 equal to the share of national VAT (charged at a rate equal to 18%); and,

- EUR 0.20 equal to the share of EU VAT (charged at a rate equal to 2%)

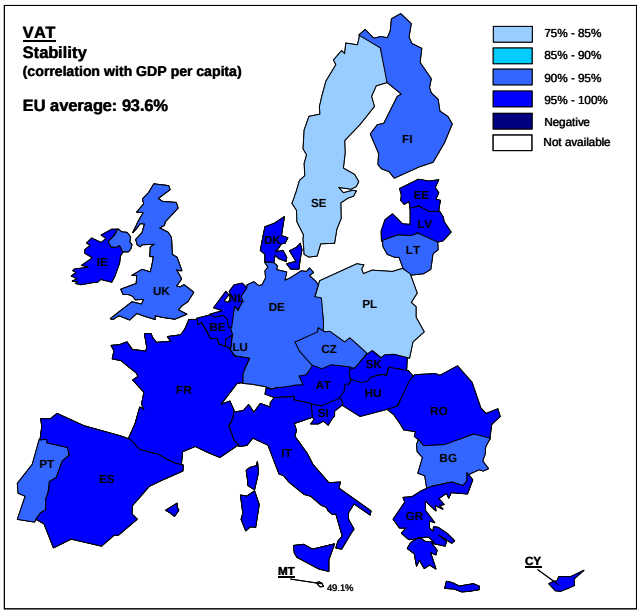
The final price would still be EUR 12.00

This example is provided for illustrative purposes only and is based on simplifying assumptions.

Stability

Figure 7 provides a comparison of the level of stability of VAT revenues in all 27 Member States. As shown in the figure, in all Member States (with the exception of Malta, Poland and Sweden) the correlation between VAT revenues and GDP per capita is at least as high as 90%. In two Member States, Poland and Sweden, the estimated correlation is high but slightly lower than in other Member States. This appears to be due to temporary slowdowns in GDP growth, whilst VAT revenues have kept growing for the whole period under analysis. The results of the analysis suggest that the stability criterion appears to be satisfied for all Member States, with the exception of Malta where the correlation of VAT with GDP per capita is about 49.1%.

Figure 7 – Stability of VAT



Non-domestic VAT

We also considered the sufficiency of the share of VAT revenues which are raised on imports, both from within the EU and from external countries. As noted previously, only 17 Member States were able to provide this information. The results of this analysis are shown in Table 2. For most Member States, VAT raised on imports generates sufficient revenues to match each Member State's recent contributions to the EU budget. The average required revenue share is approximately 54.5% of total non-domestic VAT revenues. However, Greece, Italy and Spain would require a share of non-domestic VAT revenues that ranges between 86.2% and 97.7%. In four cases, the revenues generated by non-domestic VAT are not sufficient to match the EU Budget contributions of these countries. Therefore, non-domestic VAT does not appear to fulfil the sufficiency criterion.

Table 2 – Sufficiency of non-domestic VAT

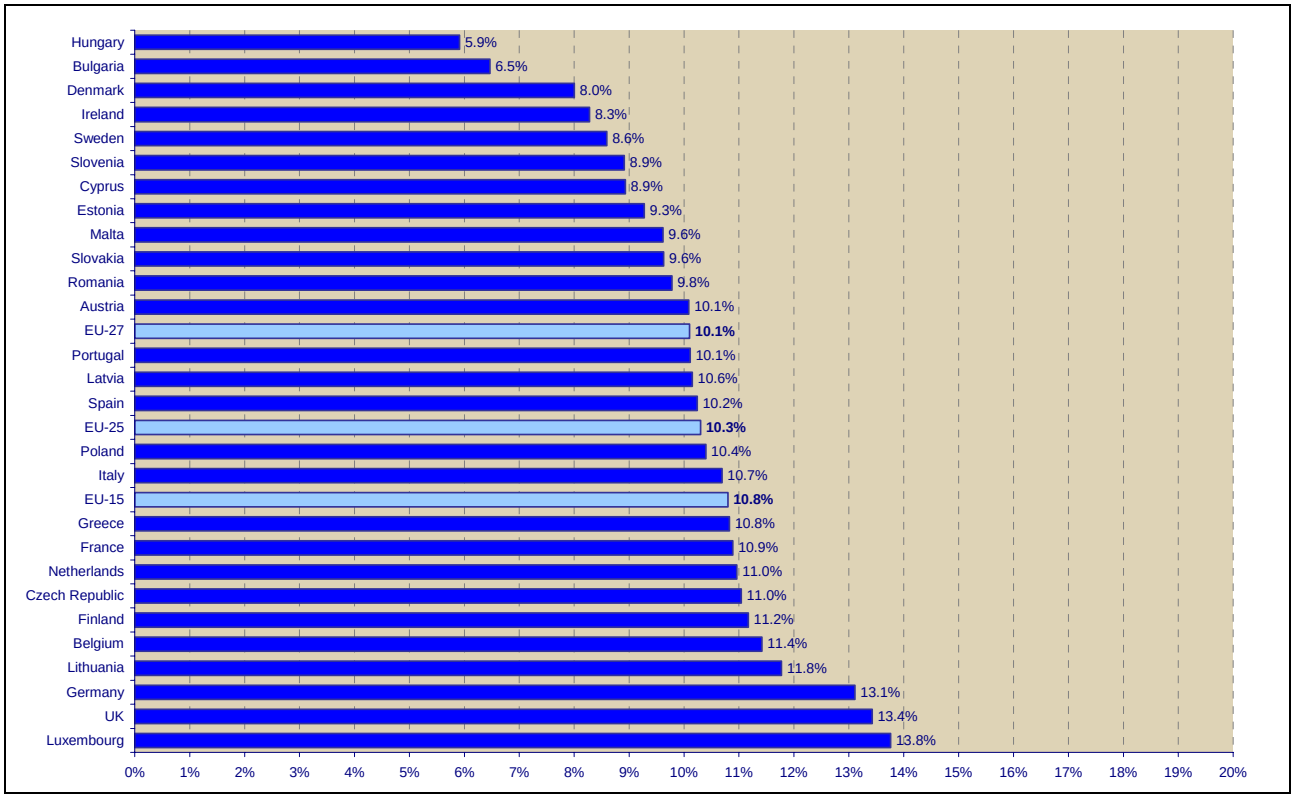
Member State	Revenues from VAT on imports (EUR million)	EU Budget contribution (EUR million)	Share of non-domestic VAT revenues required
Czech Republic	1,556	844	54.2%
Germany	31,640	17,412	55.0%
Greece	1,771	1,602	90.5%
Spain	9,713	8,377	86.2%
Ireland	1,234	1,260	not sufficient
Italy	12,493	12,205	97.7%
Cyprus	399	115	28.8%
Latvia	269	109	40.5%
Lithuania	333	173	52.0%
Hungary	713	720	not sufficient
Austria	7,798	1,956	25.1%
Poland	4,201	2,055	48.9%
Portugal	1,036	1,419	not sufficient
Slovenia	500	247	49.4%

Member State	Revenues from VAT on imports (EUR million)	EU Budget contribution (EUR million)	Share of non-domestic VAT revenues required
Finland	3,353	1,352	40.3%
Sweden	2,065	2,303	not sufficient
United Kingdom	24,421	9,630	39.4%
Average			**54.5%**

Proportional Budget contributions

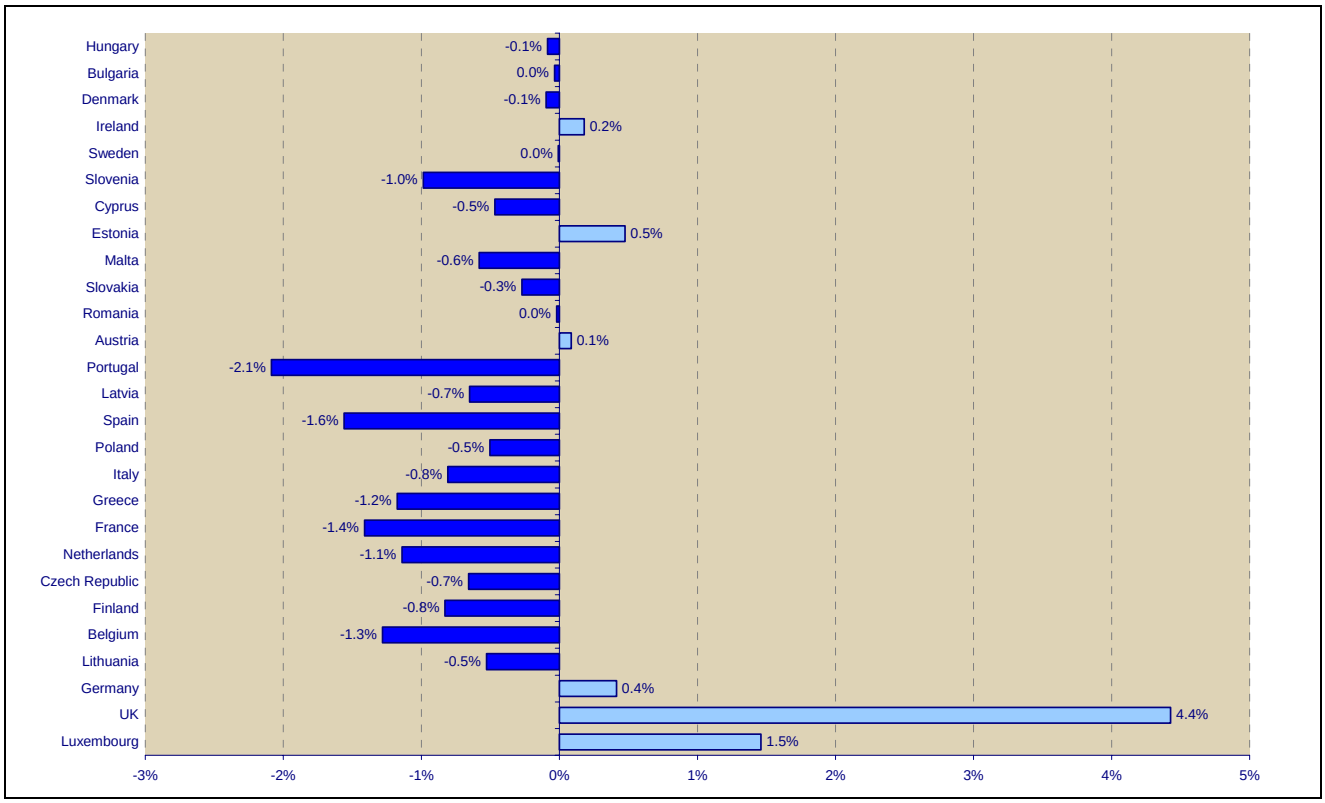
Finally, we considered the VAT revenue shares that would be required if all Member States contributed the same proportion of their annual GDP to the EU Budget. Figure 8 shows the VAT revenue shares that would be required if each Member State's budget contribution was equal to the EU-25 average share of GDP required for the entire EU budget, currently equal to about 0.80% of the EU-25 GDP (net of Traditional Own Resources).

Figure 8 – Required VAT revenues share assuming proportional contributions



The required VAT revenue share ranges between 5.9% for Hungary to 13.8% for Luxembourg. Figure 9 shows how the required VAT revenue share would change for each Member State with respect to the current levels of contribution. Most Member States would be able to reduce the required share of VAT revenues. Six Member States (Austria, Estonia, Germany, Ireland, Luxembourg and the United Kingdom) would need to transfer a higher share of revenues. The UK shows the largest change, with its required revenues share increasing 4.4 percentage points, from 9.0% to about 13.4%.

Figure 9 – Change in the required VAT revenue share



Excise Duty on Motor Fuel

Required revenue share

Figure 10 compares the share of Excise Duty on Motor Fuel revenues that each Member State would need to dedicate to the EU budget, if the current system (net of Traditional Own Resources), were to be replaced.

The EU-15 average is 60.9%, while the EU-25 average is 53.3%. If all 26 Member States are included (data for Bulgaria is currently not available), 52.9% of total European Excise Duty on Motor Fuel revenues would be required to replace the existing VAT and GNI own resources, as shown in Figure 11.

The required revenue share ranges from 28.2% for the UK to 82.4% for Sweden. There may be several reasons for this variability, including relative size of EU budget contribution, the differences in actual revenues that depend on the excise duty rates, the application of discounts and the effectiveness of each Member State in collecting the tax.

Figure 10 – Excise Duty on Motor Fuel revenue share

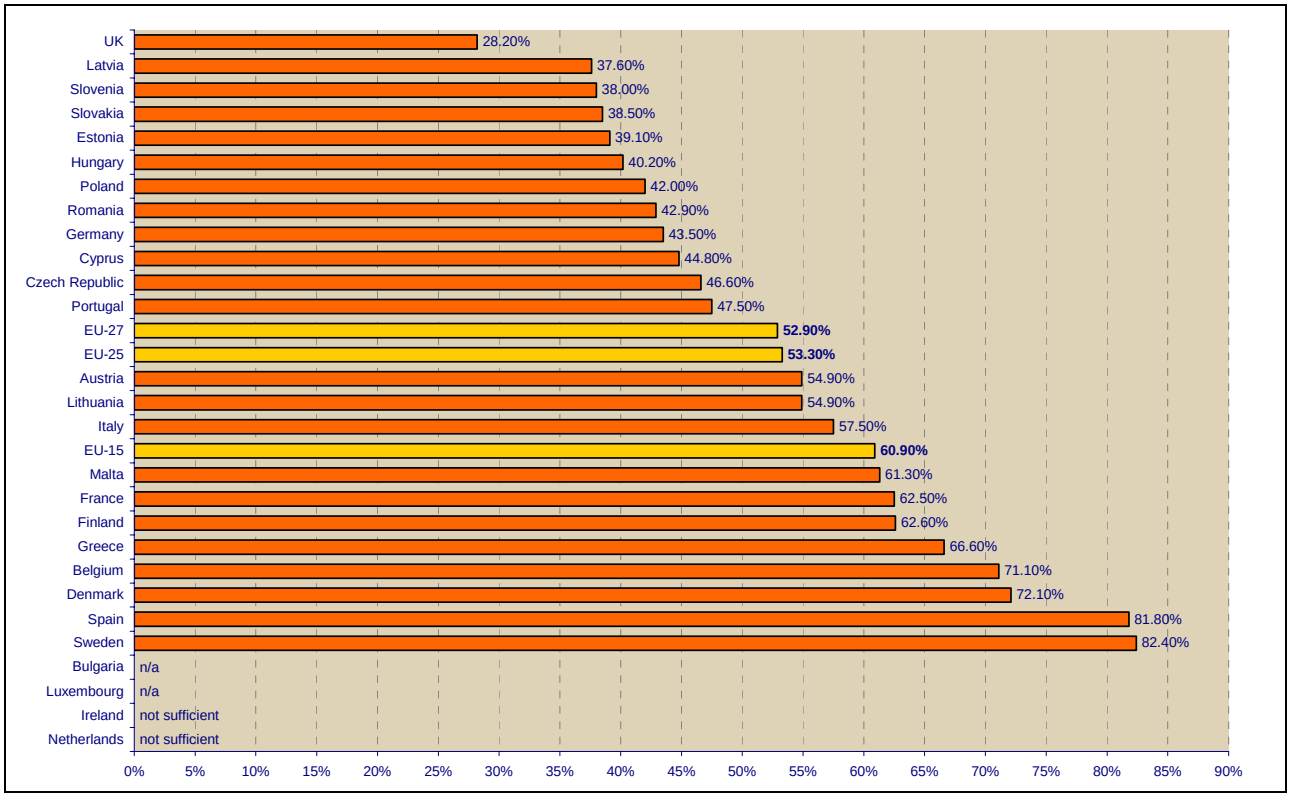
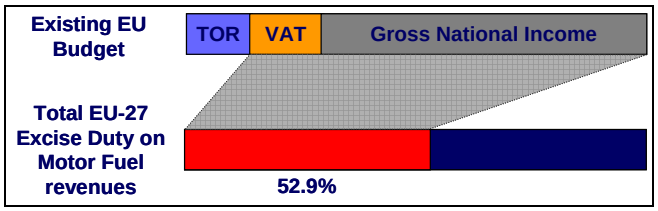


Figure 11 – Average required share of Excise Duty on Motor Fuel Revenues



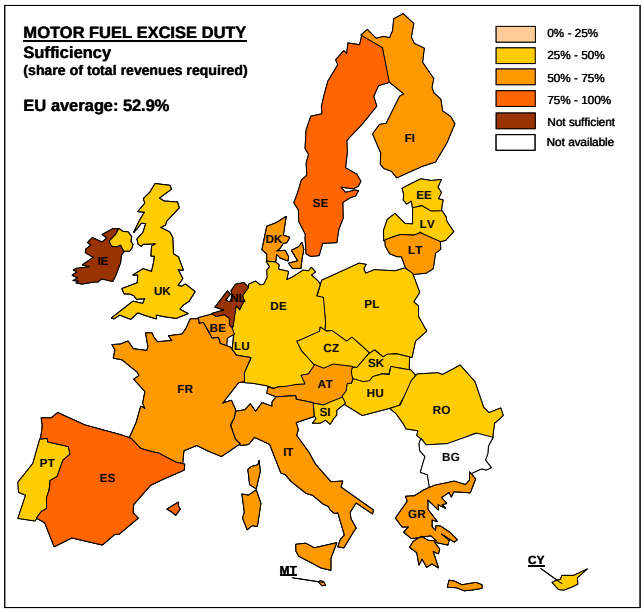
Sufficiency

The chart provides a comparison of the level of sufficiency of the Excise Duty on Motor Fuel revenues in 25 Member States (data for Bulgaria were not available, while the tax is not applied in Luxembourg).

As shown in the figure, in Ireland and the Netherlands the revenues raised by this tax are not sufficient to match these Member States' EU budget contribution. No Member State would need to transfer less than 25% of their revenues from this tax and several Member States would need to transfer more than 50%.

Hence, the sufficiency criterion appears to be fulfilled only partially.

Figure 12 – Sufficiency of Excise Duty on Motor Fuel



The EU-25 average motor fuel excise duty required revenue share is 52.9%. This translates into an average duty rate of EUR 254 per 1000 litres of fuel. The example shows how this may be applied in a Member State where the duty rate is currently EUR 500 per 1000 litres of fuel.

EXAMPLE 4

In the current situation, if the motor fuel excise duty rate is equal to EUR 500 per 1000 litres of fuel, a customer purchasing 40 litres of fuel with a price of EUR 0.50 per litre will pay EUR 20.00 for the fuel and EUR 20.00 of fuel duty (at EUR 0.50 per litre). Hence, the final price paid will be EUR 40.00.

If the EU was funded through revenues from motor fuel excise duty, a share of these revenues would be transferred directly to the EU. Given that, on average, 52.9% of motor fuel duty revenues would be required to match the current budget contributions, this would translate into a required duty rate of EUR 254 per 1000 litres of fuel. Therefore, the final consumer would pay:

- EUR 20.00 for the fuel;

- EUR 9.84 as national fuel duty; and,

- EUR 10.16 as EU fuel duty.

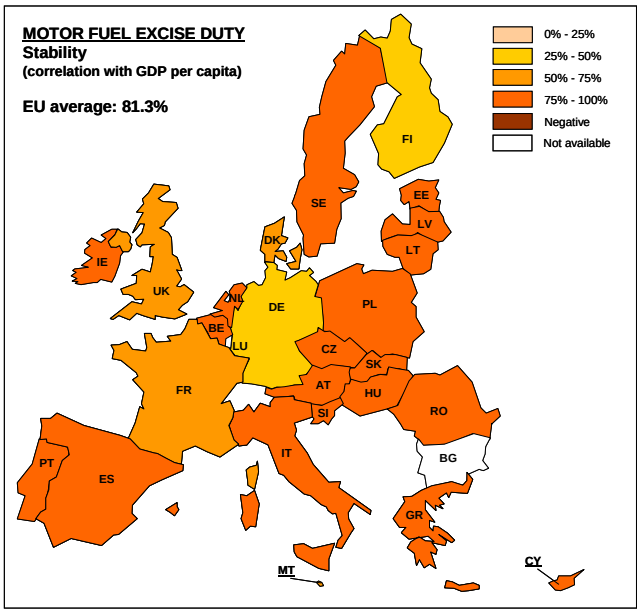
The final price would still be EUR 40.00

This example is provided for illustrative purposes only and is based on simplifying assumptions.

Stability

Figure 13 provides a comparison of the level of stability of Excise Duty on Motor Fuel revenues in 25 Member States (data for Bulgaria were not available, while the tax is not applied in Luxembourg). As shown in the figure, in most Member States the correlation between revenues and GDP per capita is above 75%. However, for some countries, this drops below 75%, while in the case of Finland, Germany and Malta the correlation is lower than 50%. This means the stability criterion appears to be only partially fulfilled.

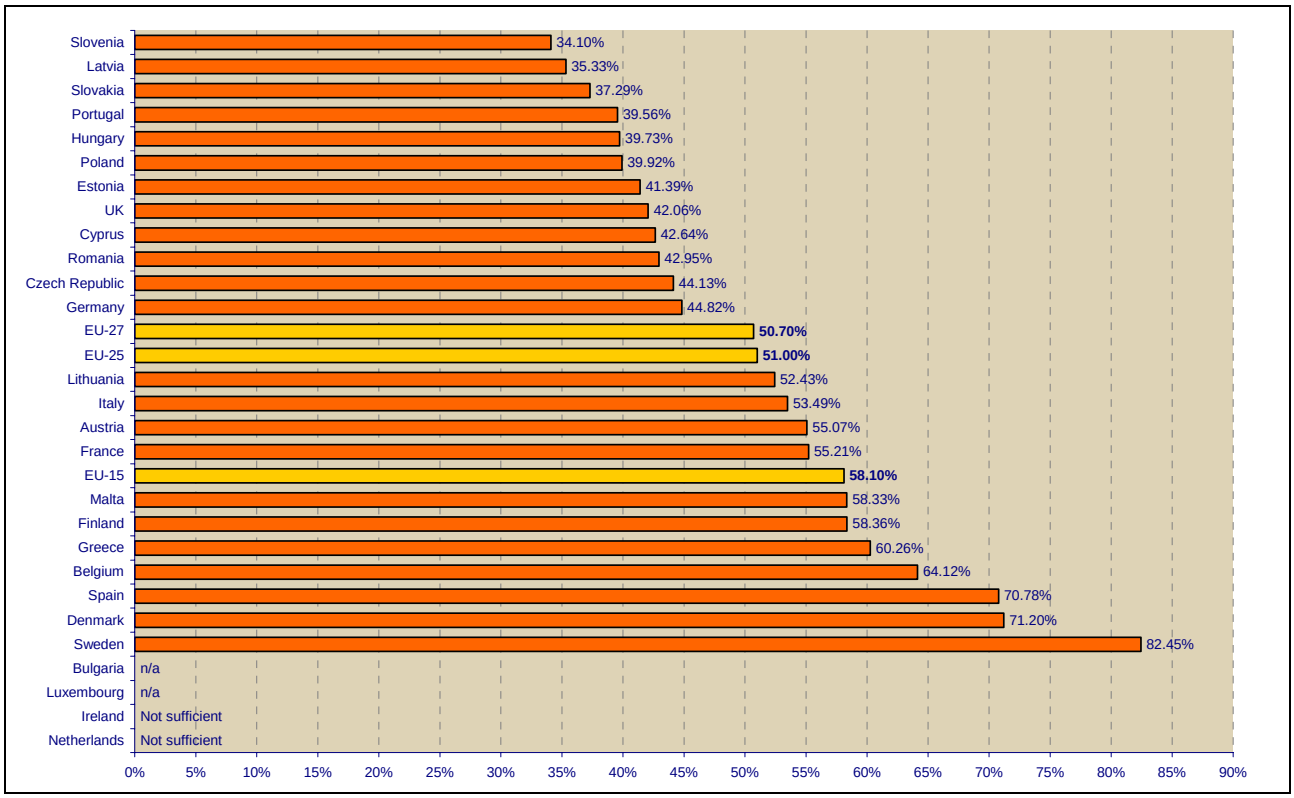
Figure 13 – Stability of Excise Duty on Motor Fuel



Proportional Budget contributions

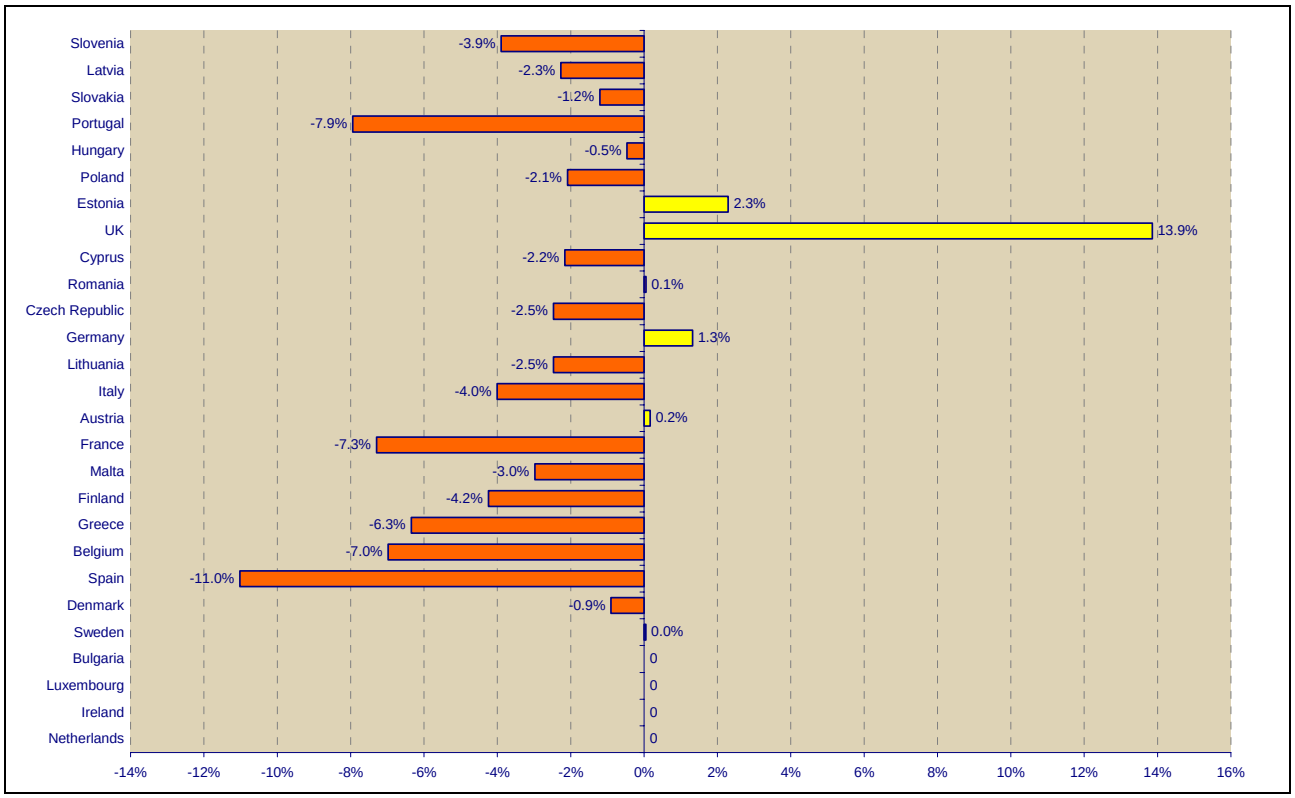
Finally, we considered the motor fuel excise duty revenue shares that would be required if all Member States contributed to the EU Budget the same proportion of their annual GDP. Figure 14 shows the motor fuel excise duty revenue shares that would be required if each Member State's budget contribution was equal to the EU-25 average share of GDP required for the entire EU budget, currently equal to about 0.80% of the EU-25 GDP (net of Traditional Own Resources).

Figure 14 – Required motor fuel excise duty revenue share assuming proportional contributions



The required motor fuel excise duty revenue share ranges between 34.1% for Slovenia to 82.4% for Sweden. Figure 15 shows how the required motor fuel excise duty revenue share would change for each Member State with respect to the current levels of contribution. Most Member States would be able to reduce the required share of motor fuel excise duty revenues. As for VAT, Austria, Estonia, Germany and the United Kingdom would need to transfer a higher share of revenues, while Ireland and the Netherlands do not raise revenues that would be sufficient to match their contribution .The UK shows the largest change, with its required revenues share increasing 13.9 percentage points, from 28.2% to about 42.1%.

Figure 15 – Change in the required motor fuel excise duty revenue share



Excise Duties on Alcohol and Tobacco

Required revenue share

Figure 16 compares the share of Excise Duties on Alcohol and Tobacco revenues that each Member State would need to dedicate to the EU budget, if the current system (net of Traditional Own Resources) were to be replaced entirely by revenues generated by these taxes.

The EU-15 average is 74.1%, while the EU-25 average is 69.2%. If all existing Member States are included (i.e. including Romania; data for Bulgaria are not available) the average share of total revenues from alcohol and tobacco excise duty that would be required to replace the existing VAT and GNI own resources would be 68.9%, as shown in Figure 17.

The required revenue share ranges from 41.3% for Estonia to 97.9% for Germany. There may be several reasons for this variability, including the relative size of EU budget contribution, the differences in actual revenues that depend on the excise duties rates, the application of discounts and the effectiveness of each Member State in collecting the tax.

Figure 16 – Required Excise Duties on Alcohol and Tobacco revenues

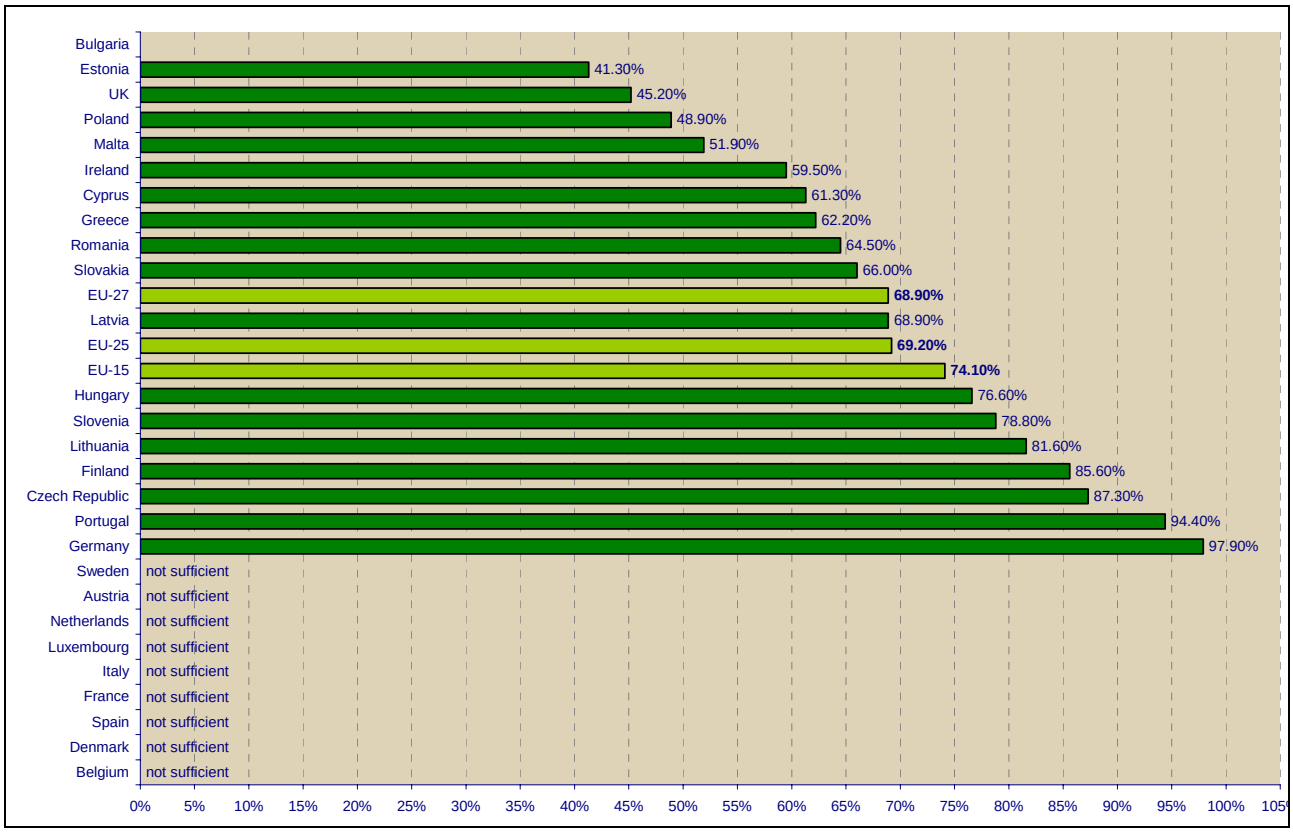
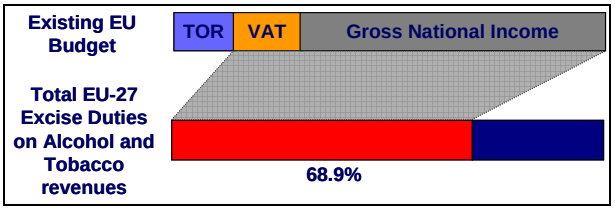


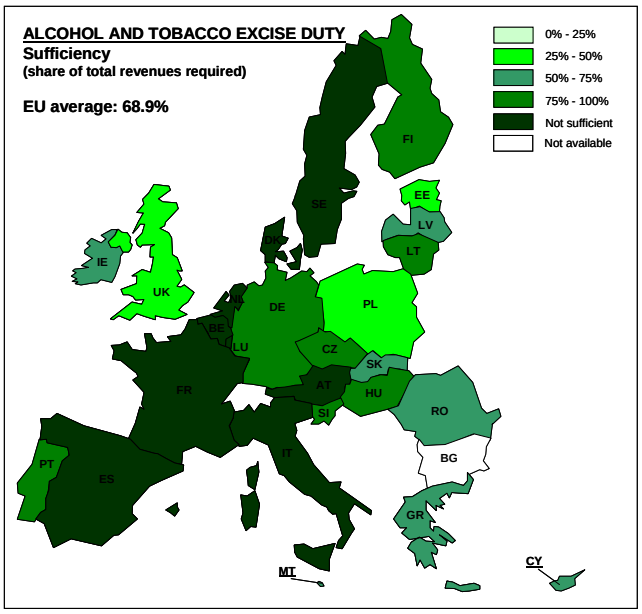
Figure 17 – Average required share of Excise Duties on Alcohol and Tobacco



Sufficiency

Figure 18 provides a comparison of the level of sufficiency of the revenues from excise duties on alcohol and tobacco in 26 Member States (data for Bulgaria were not available). As shown in the figure, several Member States do not collect sufficient revenues to match their recent contribution to the EU budget (net of Traditional Own Resources). Only Estonia, Poland and the United Kingdom would be required transferring less than 50% of their revenues from these taxes. Hence, the sufficiency criterion appears not to be fulfilled.

Figure 18 – Sufficiency of Excise Duties on Alcohol and Tobacco



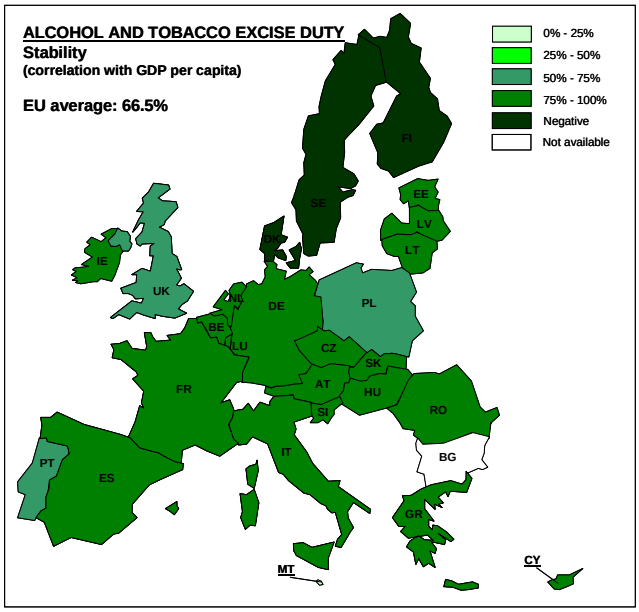
Stability

Figure 19 provides a comparison of the level of stability of the revenues from Excise Duties on Alcohol and Tobacco in 26 Member States (data from Bulgaria were not available).

As shown in the figure, in most Member States, the correlation between revenues and GDP per capita is above 75%. However, in Denmark, Finland and Sweden, correlation is negative. Correlation is also low in Malta, Poland, Portugal and the UK. This may be due to changes in policies, especially if some Member States have tried to reduce the consumption of alcohol and, in particular, tobacco.

Therefore, the stability criterion appears to be only partially fulfilled.

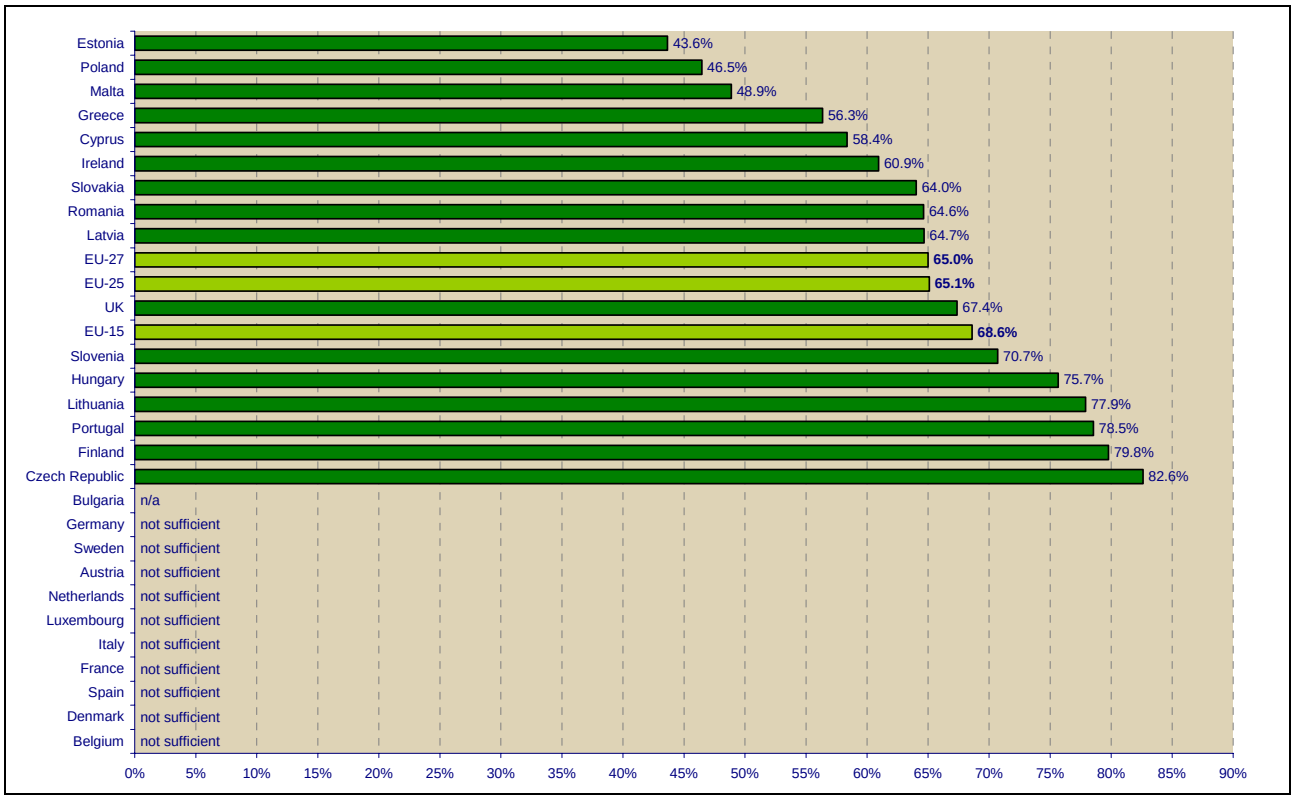
Figure 19 – Stability of Excise Duties of Alcohol and Tobacco



Proportional Budget contributions

Finally, we considered the alcohol and tobacco revenue shares that would be required if all Member States contributed to the EU Budget the same proportion of their annual GDP. Figure 20 shows the alcohol and tobacco excise duty revenue shares that would be required if each Member State's budget contribution was equal to the EU-25 average share of GDP required for the entire EU budget, currently equal to about 0.80% of the EU-25 GDP (net of Traditional Own Resources).

Figure 20 – Required alcohol and tobacco excise duty revenue share assuming proportional contributions

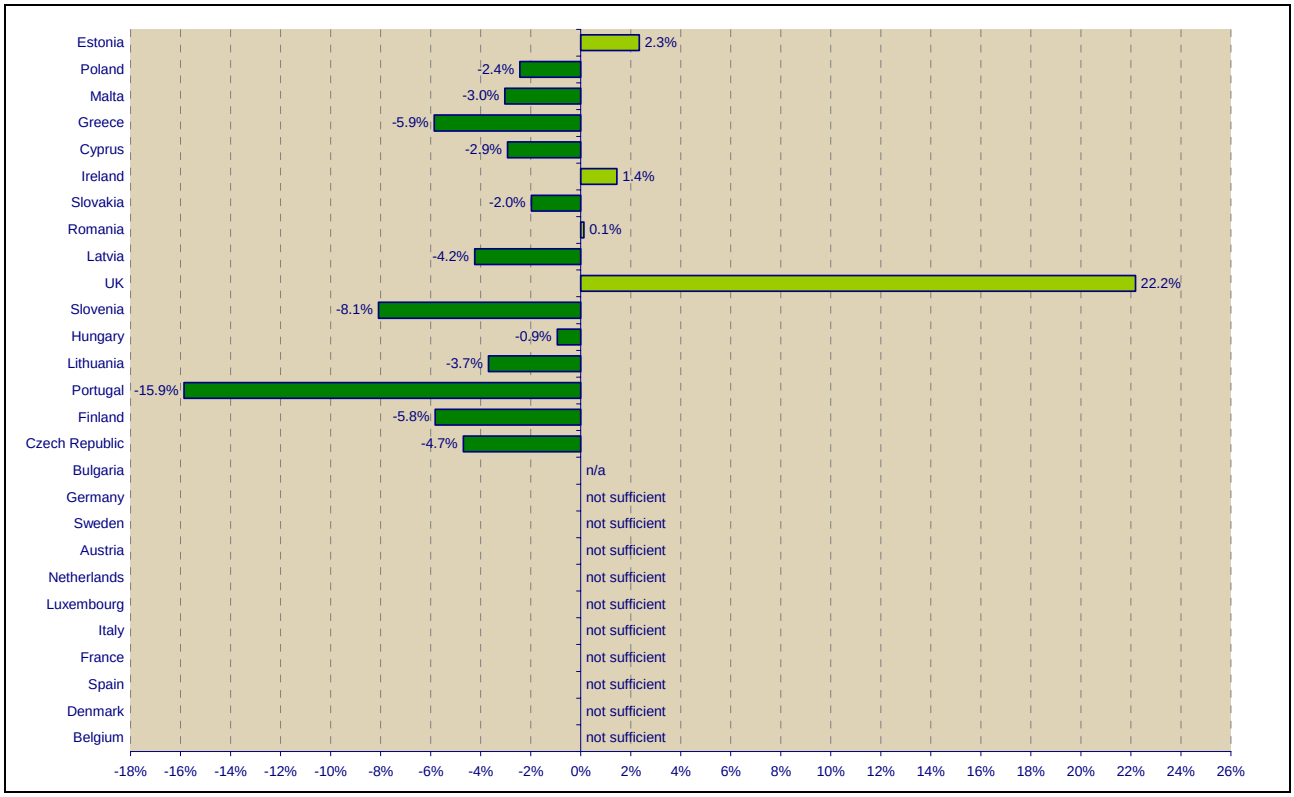


The required alcohol and tobacco excise duty revenue share ranges between 43.6% for Estonia to

82.6% for Czech Republic. In ten Member States the revenues raised from these taxes would not be sufficient to match their contributions under this arrangement. Figure 21 shows how the required alcohol and tobacco excise duty revenue share would change for each Member State with respect to the current levels of contribution.

Most Member States would be able to reduce the required share of alcohol and tobacco excise duty revenues. Four Member States (Estonia, Ireland, the United Kingdom and, only marginally, Romania) would need to transfer a higher share of revenues. Austria, Germany and Luxembourg do not raise sufficient revenues to match their current budget contributions. The UK shows the largest change, with its required revenues share increasing 22.2 percentage points, from 45.2% to about 67.4%.

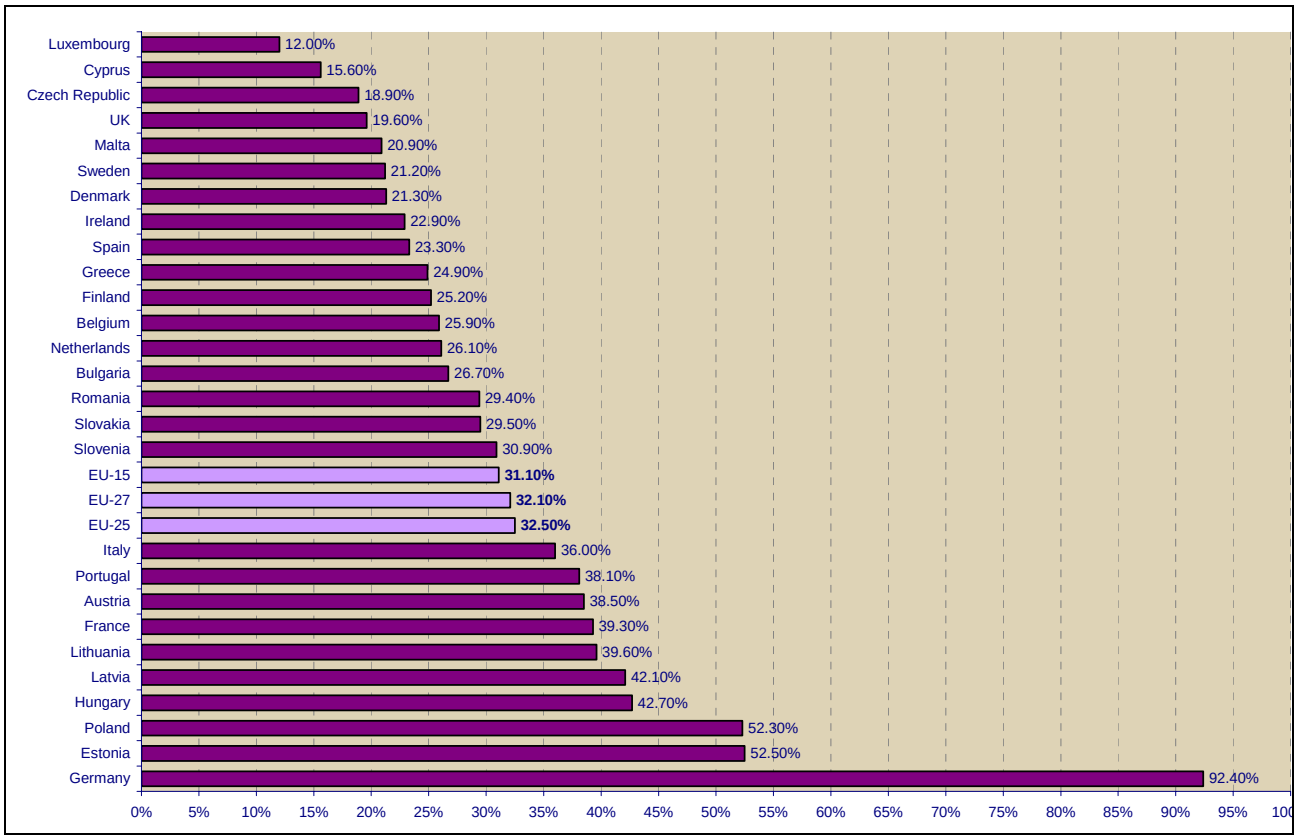
Figure 21 – Change in the required alcohol and tobacco excise duty revenue share



Tax on Corporate Profits

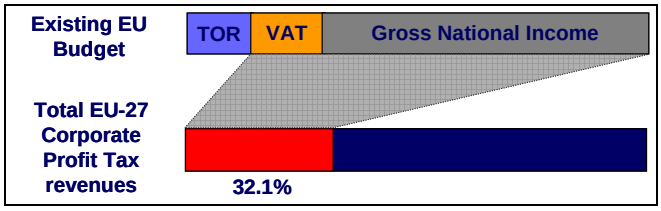
Figure 22 compares the share of revenues from the Corporate Profit Tax that each Member State would need to dedicate to the EU budget, if the current system (net of Traditional Own Resources) were to be replaced.

Figure 22 – Required Corporate Profit tax revenues



The EU-15 average is 31.1%, while the EU-25 average is 32.5%. If all Member States are included (i.e. including Bulgaria and Romania) the average share of total revenues from the tax on Corporate Profit that would be required to replace the existing VAT and GNI own resources would be 32.1%, as shown in Figure 23.

Figure 23 - Average required share of Corporate Profit Tax



The required revenue share ranges from 12.0% for Luxembourg to 92.4% for Germany. There may be several reasons for this variability, including the relative size of each Member State's contribution to the EU budget, the differences in actual revenues that depend on the tax rates, the application of discounts and the effectiveness of each Member State in collecting the tax and, finally, tax policy changes. For example, Germany reformed the legislation on Corporate Profit Tax

in 2001, temporarily reducing the revenues from this tax.

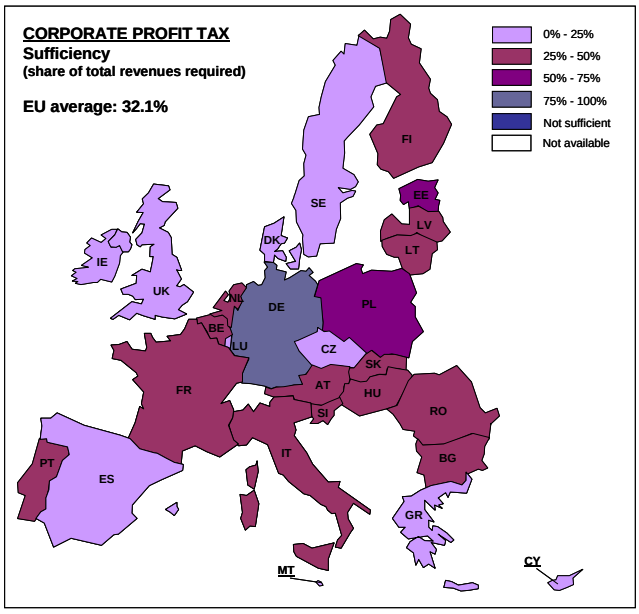
Sufficiency

Figure 24 provides a comparison of the level of sufficiency of the revenues from the corporate profit tax in all 27 Member States. As shown in the figure, most Member States would need to transfer at least 25% of the revenues from this tax to match their respective contribution to the EU budget (net of Traditional Own Resources). Germany appears to be the only Member State which would need to transfer most of its revenues. However, this appears to be a temporary condition possibly due to a recent reform of the legislation concerning corporate profit tax.

However, a small number of Member States would require a transfer of less than 25% of their revenues from this tax.

The revenues from the tax on corporate profits appear to fulfil the sufficiency criterion.

Figure 24 – Sufficiency of Corporate Profit Tax



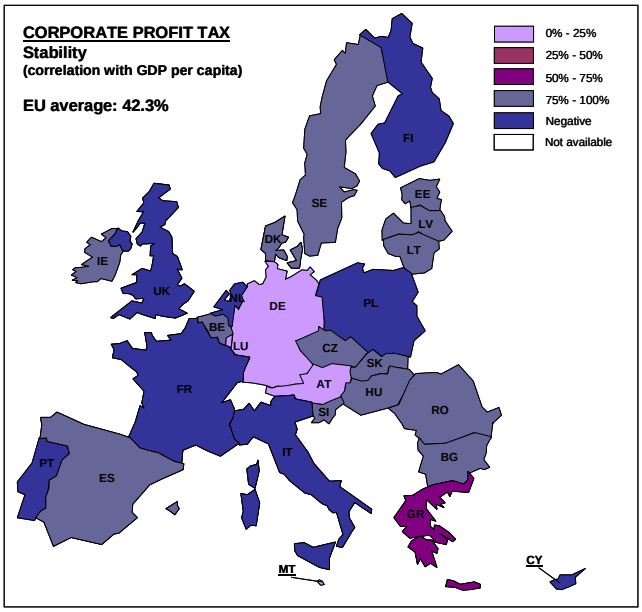
Stability

Figure 25 provides a comparison of the level of stability of Corporate Profit tax revenues in all 27 Member States.

As shown in the figure, the correlation is not uniform across all Member States. For several Member States the correlation of tax revenues with GDP per capita is negative. This may be due to changes in tax policies occurred during the period 2000 -2005. In other Member States (especially in Eastern Europe and in the Baltic Republics) correlation is at least 75%.

However, due to the large number of Member States that show a negative correlation, the stability criterion does not appear to be fulfilled.

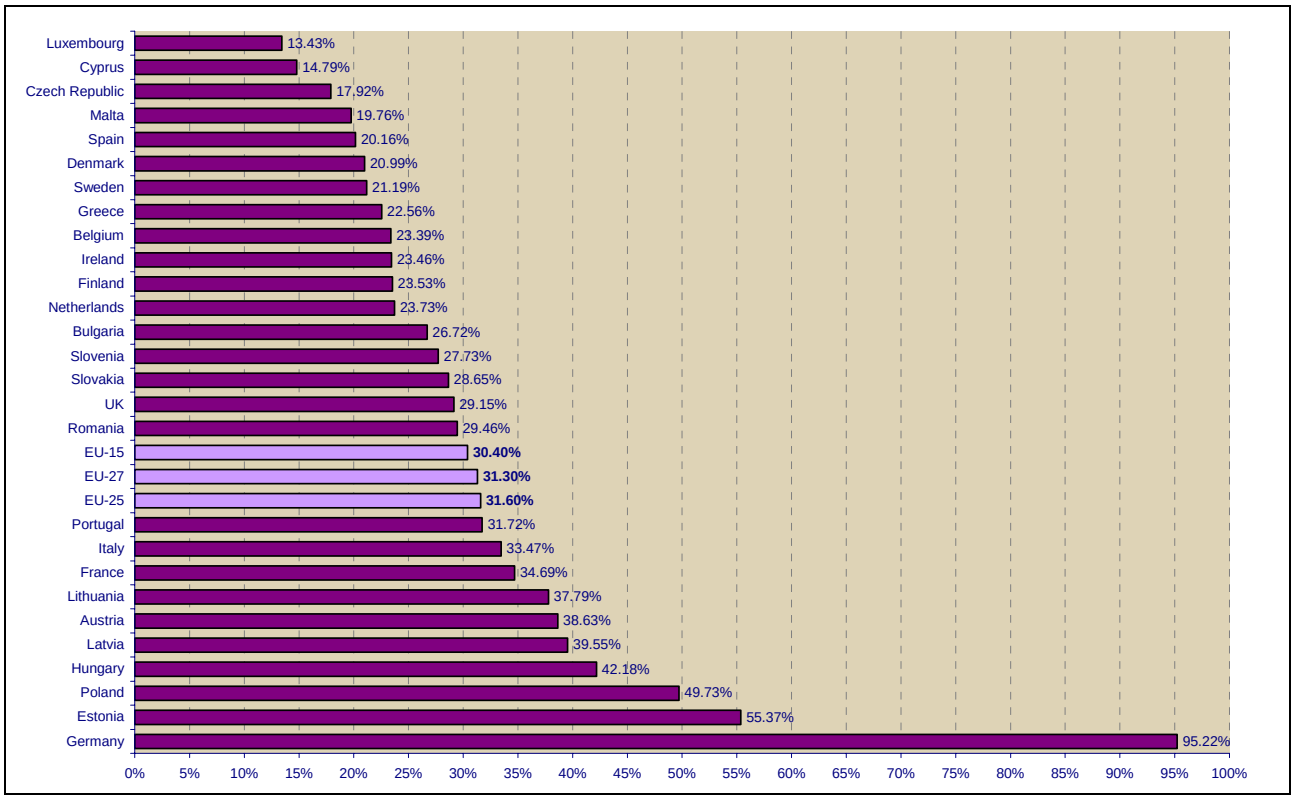
Figure 25 – Stability of Corporate Profit Tax



Proportional Budget contributions

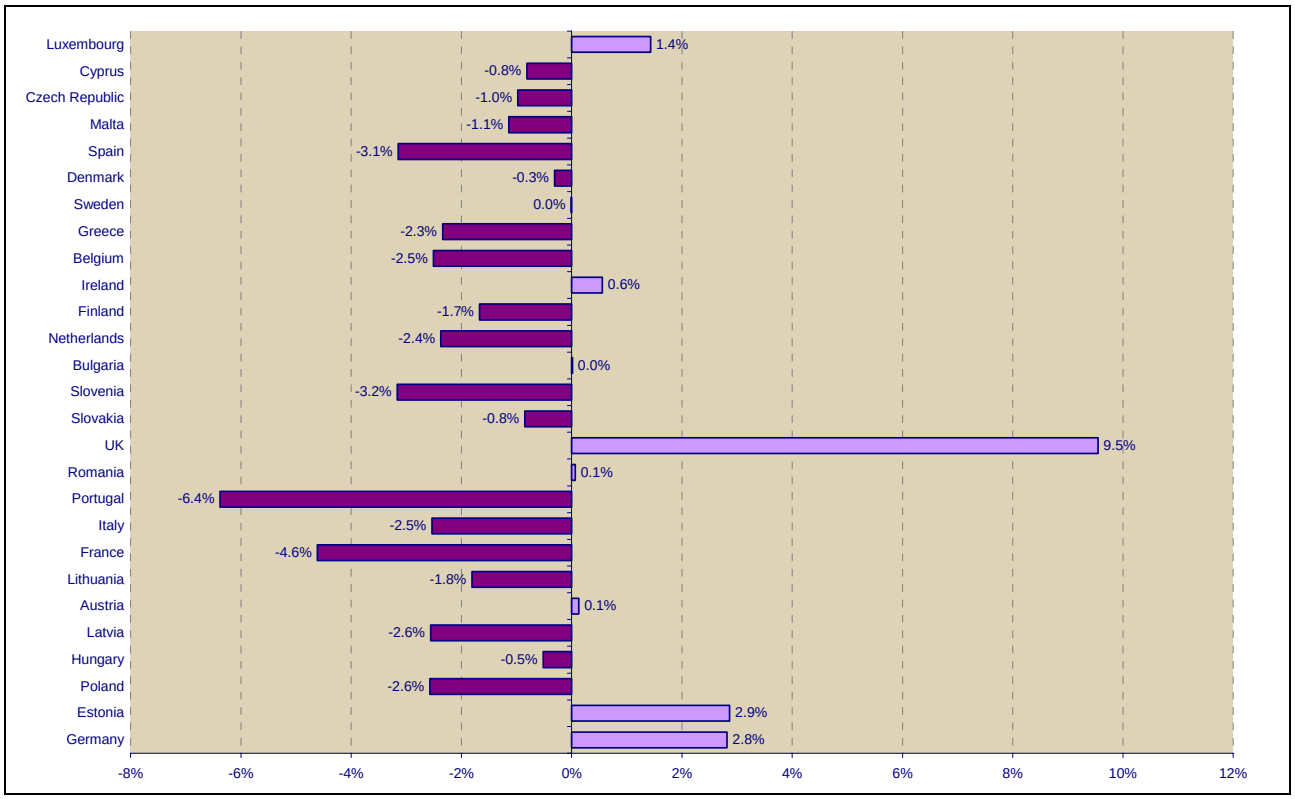
Finally, we considered the corporate profit tax revenue shares that would be required if all Member States contributed to the EU Budget the same proportion of their annual GDP. Figure 26 shows the corporate profit tax revenue shares that would be required if each Member State's budget contribution was equal to the EU-25 average share of GDP required for the entire EU budget, currently equal to about 0.80% of the EU-25 GDP (net of Traditional Own Resources).

Figure 26 – Required corporate profit tax revenue share assuming proportional contributions



The required corporate profit tax revenue share ranges between 13.4% for Luxembourg to 95.2% for Germany. Figure 27 shows how the required corporate profit tax revenue share would change for each Member State with respect to the current levels of contribution. Most Member States would be able to reduce the required share of corporate profit tax revenues. As for VAT, six Member States (Austria, Estonia, Germany, Ireland, Luxembourg and the United Kingdom) would need to transfer a higher share of revenues. The UK shows the largest change, with its required revenues share increasing 9.5 percentage points, from 19.6% to about 29.1%.

Figure 27 – Change in required corporate profit tax revenue share



Summary of findings

Our analysis has shown that VAT appears to be the only tax that fulfils both the sufficiency and stability criteria. In addition, the share of total revenues that would be required to match the current contributions to the EU budget (net of Traditional Own Resources) is smaller than for all the other candidate taxes. The results of the analysis are summarised in Table 3

Table 3 – Summary of results

Tax	Sufficiency	Stability
VAT	Fulfilled	Fulfilled
Excise Duty on Motor Fuel	Partially fulfilled	Partially fulfilled
Excise Duties on Alcohol and Tobacco	Not fulfilled	Partially fulfilled
Tax on Corporate Profit	Fulfilled	Not Fulfilled

Value Added Tax: this tax appears to fulfil both the sufficiency and stability criteria. The required share of revenues is always below 25% and, in almost all Member States, the correlation with GDP per capita is very high.

Excise duty on motor fuel for road transport: in two Member States (Ireland and the Netherlands), this tax does not raise sufficient revenues. Most of the remaining member states would need to transfer between 50% and 75% of their revenues, but some countries would require more. Correlation with GDP per capita is generally high, although in some cases it is below 50%.

Excise duties on alcohol and tobacco: in nine Member States, this tax does not raise sufficient revenues and for several of the other countries the required share would be larger than 75% of total revenues. Correlation with GDP per capita is generally high, although it is negative in Denmark, Finland and Sweden.

Corporate profit tax: the revenues from this tax appear to be sufficient in all Member States. Most Member States would need to transfer between 25% and 50% of their revenues. In nine Member States correlation with GDP per capita is negative, suggesting low stability of revenues.

Future Own Resources

External Study on the Composition of Future Own Resources

for the European Parliament, Directorate General Internal Policies

Technical Annex

1 Introduction

1.1 Overview

This report presents an assessment of the revenue potential and stability of VAT, excise duties on motor fuel for road transport, excise duties on tobacco and alcohol and taxes on corporate profits across EU Member States ("**MSs**") for the purposes of supporting an EU-wide tax system.

Table 4 shows the contribution of each MS to the EU budget for 2005. These contributions would need to be replicated by an EU-own resources tax. The table compares the MS budget contribution with MS GDP by representing the budget contribution as a percentage of GDP. This highlights the current imbalance of the tax burden relative to GDP across MSs. For example, Ireland's contribution is about 0.78% of its GDP, compared with an EU-25 average of 0.80%. The UK's contribution is an outlier at 0.54% of GDP due to its budget rebate. ([4])

Table 4 – Contributions by member states as proportion of GDP and on per capita basis

Member State	GDP (EUR million)	GDP per capita (EUR)	Budget contribution by MS net of UK rebate (EUR million)	Traditional Own Resources (TOR) by MS (EUR million)	Budget contribution by MS net of UK rebate and TOR (EUR million)	Budget contribution net of UK rebate and TOR as % of GDP	Budget contribution net of UK rebate and TOR as % of EU Budget
Belgium	298,540	28,579	4,024	1,373	2,651	0.89%	3.06%
Czech Republic	99,733	9,758	990.1	146.1	844	0.85%	0.97%
Denmark	208,546	38,538	1,990	298	1,692	0.81%	1.95%
Germany	2,241,000	27,163	20,136	2,724	17,412	0.78%	20.07%
Estonia	11,060	8,208	99.7	16	83.7	0.76%	0.10%
Greece	181,087	16,339	1,802	200	1,602	0.88%	1.85%
Spain	905,455	21,038	9,475	1,098	8,377	0.93%	9.66%
France	1,710,023	27,352	16,854	1,337	15,517	0.91%	17.89%
Ireland	161,162	39,219	1,442	182	1,260	0.78%	1.45%
Italy	1,417,241	24,241	13,547	1,342	12,205	0.86%	14.07%

[4] The UK has been granted a rebate since 1984, when it had one of Europe's lowest per capita incomes. At that time, the EU budget was mainly financed with VAT resources and the UK had a larger VAT base than other MS but, with a proportionately smaller agricultural sector, it benefited less from the Common Agricultural Policy.

Member State	GDP (EUR million)	GDP per capita (EUR)	Budget contribution by MS net of UK rebate (EUR million)	Traditional Own Resources (TOR) by MS (EUR million)	Budget contribution by MS net of UK rebate and TOR (EUR million)	Budget contribution net of UK rebate and TOR as % of GDP	Budget contribution net of UK rebate and TOR as % of EU Budget
Cyprus	13,629	18,191	150	35.2	114.8	0.84%	0.13%
Latvia	12,837	5,565	129.8	20.4	109.4	0.85%	0.13%
Lithuania	20,621	6,020	207	34.1	172.9	0.84%	0.20%
Luxembourg	29,396	64,607	227	15.8	211.2	0.72%	0.24%
Hungary	88,799	8,794	833.2	113.3	719.9	0.81%	0.83%
Malta	4,515	11,212	50.1	11.9	38.2	0.85%	0.04%
Netherlands	505,646	31,010	5,947	1,484	4,463	0.88%	5.14%
Austria	245,102	29,886	2,144	189	1,956	0.80%	2.25%
Poland	243,764	6,385	2,327	272	2,055	0.84%	2.37%
Portugal	147,378	13,996	1,527	108	1,419	0.96%	1.64%
Slovenia	27,633	13,833	274.7	28.1	246.6	0.89%	0.28%
Slovakia	38,133	7,077	359	44.1	314.9	0.83%	0.36%
Finland	157,377	30,053	1,465	113	1,352	0.86%	1.56%
Sweden	287,706	31,926	2,654	351	2,303	0.80%	2.66%
UK	1,790,671	29,814	12,157	2,527	9,630	0.54%	11.10%
EU - 25	**10,847,043**	**23,504**	**100.811**	**14,063**	**86,748**	**0.80%**	**100.00%**

Source: Eurostat ([5]),European Court of Auditors, Annual Report concerning the financial year 2005([6]), Deloitte calculation

This report also analyses the tax revenues of Bulgaria and Romania, which have joined the European Union on January 1st, 2007.

1.2 Background

The taxes analysed in this report were identified in an earlier report by the Study Group for

[5] Full address; for GDP: *National Accounts*, http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136173,0_45570701&_dad=portal&_schema=PORTAL , Population: *Population And Social Conditions* http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/&product=Yearlies_new_population&depth=3
Financing by Member State 2005: *Contributions to the EU Budget reduced again* http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/670&format=HTML&aged=0&language=EN&guiLanguage=en , IP/05/670

[6] European Court of Auditors, *Annual Report concerning the financial year 2005,* http://eca.europa.eu/audit_reports/annual_reports/docs/2005/ra05_en.pdf , pg. 243

European Policies ("**SEP**")([7]), commissioned by the European Parliament ("**EP**") in 2005. This report considered alternatives to the procedures currently used for the determination of each MS's contribution to the EU Budget. It concluded that the most satisfactory method appeared to be based on the adoption of an EU-wide own tax resource system and set out a number of criteria for assessing various candidate taxes. These criteria are set out below:

- *Sufficiency*: Would the revenues of the EU tax be sufficient to cover the expenditures of the EU in the long run?
- *Stability:* Would the EU tax bring about stable revenues for the EU budget?
- *Visibility*: Would the EU tax be visible to the EU citizens?
- *Low operating costs*: Would the EU tax be simple to administer and involve low compliance costs?
- *Efficient allocation of resources*: Would the EU tax lead to an efficient allocation of resources in the EU?
- *Vertical equity*: Would the EU tax be progressive?
- *Horizontal equity*: Would the EU tax have an equal impact on equivalent taxpayers across the EU?
- *Fair contributions*: Would the EU tax raise revenues from the Member States in line with their economic strength?

On the basis of these criteria, SEP identified the leading candidate taxes for EU-own resources as VAT, excise duties on motor fuel for road transport, excise duties on tobacco and alcohol and taxes on corporate profits. This study provides a preliminary quantitative assessment of the revenue potential of the selected candidate taxes and the extent to which they may satisfy the sufficiency and stability criteria set out above.

1.3 Approach

Our analysis is focused on the taxes identified by the SEP as defined by their ESA95 code. This ensures the consistency and comparability of the data collected.

Table 5 – ESA95 classification of taxes examined

Tax	ESA95 code
Value Added Tax	d211
Excise duties on motor fuel for road transport	d214a
Excise duties on tobacco and alcohol	d214a
Tax on corporate profits	d51b + d51c2

We have reviewed each candidate tax with respect to:

- its stability over time, and its correlation with movements in GDP per capita;
- the share of total revenues from the tax required to raise sufficient funds to match the current contributions of each MS to the EU; and,
- whenever possible, the indicative changes in the tax rates (or level of excise duties) necessary to achieve the required level of funding.

For our analysis we used GDP, defined as the market value of all final goods and services produced

[7] Study Group for European Policies (SEP), *Own Resources: Evolution of the system in a EU of 25*, Brussels, 2005.

within a country in a given period of time. This choice was informed by the rationale that, for the taxes considered in this study, a given tax jurisdiction mostly encompasses the entirety of GDP, but not of GNI, which further includes payments made to and received from other countries.

For VAT, whenever possible, we collected information on VAT revenues from domestic transactions and VAT receipts obtained from imports. We calculated the required share of total revenues both with respect to total VAT receipts and with respect to domestic VAT only. This analysis allows the identification of the share of VAT revenues that would be resilient to any changes on how VAT on imports is applied.

1.4 Data sources

The data underpinning this study was collected from a variety of publicly available sources.

Information on revenues for the chosen candidate taxes was obtained from statistical publications of each MS. Whenever necessary, we made contact with the MS Statistical Offices to identify the correct sources of information. In some cases, contact with the MS Ministry of Finance (or equivalent) was also required.

Documents were obtained from the following offices:

- Belgium: National Bank, www.nbb.be
- Czech Republic: Statistical Office, www.czso.cz
- Denmark: National Statistical Office, www.dst.dk
- Germany: Federal Statistical Office, www.destatis.de
- Estonia: Statistical Office, www.stat.ee
- Greece: National Statistical Office, www.statistics.gr
- Spain: Agencia Estatal de la Administracion Tributaria, www.aeat.es
- France: Institut National de la Statistique et des Études Économiques, www.insee.fr
- Ireland: The Irish Revenue Commissioners, www.revenue.ie
- Italy: Ministry of Finance, www.finanze.gov.it
- Cyprus: Statistical Service, www.mof.gov.cy/cystat
- Latvia: Ministry of Finance, www.fm.gov.lv
- Lithuania: Department of Statistics, www.stat.gov.lt
- Luxembourg: Service central de la statistique et des études économiques, www.statec.lu
- Hungary: Ministry of Finance, www.meh.hu
- Malta: National Statistical Office, www.nso.gov.mt,
- Netherlands: Centraal Bureau voor de Statistiek, www.statline.cbs.nl
- Austria: National Statistical Office, www.statistik.at/
- Poland: Ministry of Finance, www.mf.gov.pl
- Portugal: Ministry of Finance, www.dgo.pt
- Slovenia: National Statistical Office, www.stat.si
- Slovakia: Ministry of Finance, www.finance.gov.sk
- Finland: Ministry of Finance, www.vm.fi
- Sweden: Ministry of Finance, www.sweden.gov.se
- United Kingdom: HM Revenue and Customs, www.hmrc.gov.uk
- Romania: National Institute of Statistics, www.insse.ro
- Bulgaria: Eurostat

Information on the tax structure and rates of the MS under analysis was obtained from the following publications:

- European Court of Auditors, *Annual Report concerning the financial year 2005*
- European Commission, Directorate General, *Structures of the Taxation System in the European Union: 1995-2004*, Doc. TAXUD E4/2006/DOC/3201, 2006
- European Commission, Directorate General, *Structures of the Taxation System in the European Union: 1995-2004*, Doc. TAXUD E4/2006/DOC/3201, 2006
- European Commission, Taxation and Customs Union, *VAT Rates Applied in the Member States of the European Community*, DOC/1829/2006-EN, 2006
- European Commission, Directorate General, *Excise Duty Tables, Part I – Alcoholic Beverages*, REF 1.023, Brussels, 2006
- European Commission, Directorate General, *Excise Duty Tables, Part II – Energy Products and Electricity*, REF 1.023, Brussels, 2006
- European Commission, Directorate General, *Excise Duty Tables, Part III – Manufactured Tobacco*, REF 1.023, Brussels, 2006

Finally, we collected time-series data on the GDP and population of each MS from Eurostat.([8]) GDP data was obtained from the Data section under *National Accounts* and population data was obtained from the Tables section under *Population and Social Conditions*.

1.5 Limitations of our analysis

This analysis has been undertaken exclusively using publicly available information for the period 2000 to 2005 inclusive. We have not performed any checks or otherwise verified the information that we have received. Moreover, we have not considered any tax policy change that occurred since the beginning of 2006.

This report is not intended to provide a projection of the revenues that could be raised from an EU-own resources tax. For example, it does not take into account how the tax systems of individual MSs might respond to such a tax or how consumers or companies might respond to such taxes.

In some MSs, the information publicly available did not permit the desired level of disaggregation. For example, some MSs do not provide publicly the breakdown of VAT revenues according to their origin, in other words differentiating domestic transactions from VAT revenues from imports.

This analysis is not intended to provide any recommendations as to which tax or taxes should be chosen for the implementation of an EU-wide own tax resource system. The proposed candidate taxes are assessed and compared uniquely on the basis of the sufficiency and stability criteria. It should be noted that an additional factor that should be considered for the selection of an appropriate tax would be the efficiency of each MSs tax authority in the collection of the chosen taxes. However, these considerations go beyond the scope of this report.

[8] Information on *GDP*, *Consumer Expenditure* and *Population*, Eurostat, *ibid.*

2 Summary of Results

This section presents the summary of the results of our analysis. Each tax is assessed on the basis of criteria of:

- *sufficiency*: to determine whether the revenues collected are sufficient to match each MS contribution to the EU Budget, net of Traditional Own Resources; and,
- *stability*; to determine whether the revenues collected are stable and follow movements in GDP.

To this extent, we report the average annual change of tax revenues over the period 2000-2005, their correlation with GDP and the share of tax revenues required to match each country's EU budget contribution, net of Traditional Own Resources. Whenever possible, we also calculate the tax or excise rates that would be necessary to raise the required level of revenues. In order to show how the position of individual member states with respect to the EU average, we calculated the number of MS that would benefit (a reduction in their EU Budget contribution) and of those that would be penalised (an increase in their EU Budget contribution) if a single tax equal to the current average were to be applied across the EU.

The results of the analysis are also summarised by charts, to provide a comparison of how each tax fulfils the sufficiency and stability criteria in each MS.

2.1 VAT

Table 6 shows the summary of results for VAT. VAT has grown in all countries, with the highest average growth achieved in Romania (36.3%) and the lowest recorded in Germany (0.9%).The correlation of VAT revenues with GDP is in general high, with the exception of Malta, for which the estimated correlation coefficient is about 49.1%. Excluding Malta from the average, the average correlation coefficient becomes about 94.9%. The share of VAT revenues required to match each country's contribution to the EU budget ranges between 6.0% and 12.7%. Finally, the VAT rate that would be required to raise a level of revenues sufficient to match each country's contribution to the EU budget ranges between 1.2% to 2.7%, assuming that all VAT revenues are raised at the standard rate.

Table 6- Summary of results: VAT

Member State	Average annual change 2000-2005	Correlation of revenues with GDP	Share of total revenues required	Indicative required VAT rate
Belgium	4.0%	97.0%	12.7%	2.7%
Czech Republic	9.0%	91.4%	11.7%	2.2%
Denmark	4.7%	99.4%	8.1%	2.0%
Germany	0.9%	93.5%	12.7%	2.0%
Estonia	13.3%	98.3%	8.8%	1.6%
Greece	6.5%	95.2%	12.0%	2.3%
Spain	9.1%	99.4%	11.8%	1.9%
France	3.5%	95.8%	12.3%	2.4%
Ireland	9.5%	96.3%	8.1%	1.7%
Italy	3.7%	97.8%	11.5%	2.3%
Cyprus	18.9%	98.9%	9.4%	1.4%
Latvia	16.5%	97.4%	10.8%	1.9%
Lithuania	7.5%	93.1%	12.3%	2.2%
Luxembourg	8.5%	98.2%	12.3%	1.9%
Hungary	7.1%	99.1%	6.0%	1.2%
Malta	9.9%	49.1%	10.2%	1.8%
Netherlands	5.1%	99.4%	12.1%	2.3%
Austria	2.9%	98.2%	10.0%	2.0%
Poland	8.0%	78.9%	10.9%	2.4%
Portugal	6.3%	94.0%	12.2%	2.6%
Slovenia	9.2%	99.8%	9.9%	2.0%
Slovakia	14.3%	97.2%	9.9%	1.9%
Finland	3.6%	94.6%	12.0%	2.6%
Sweden	5.0%	82.5%	8.6%	2.1%
UK	5.3%	91.0%	9.0%	1.6%
Bulgaria	20.1%	94.4%	6.5%	1.3%
Romania	36.3%	98.3%	9.8%	1.9%
EU-15	**5.2%**	**95.5%**	**11.0%**	**2.2%**
EU-25	**7.7%**	**93.4%**	**10.6%**	**2.0%**
EU-27	**9.2%**	**93.6%**	**10.4%**	**2.0%**

Figure 28 provides a summary of the fulfilment of the sufficiency criterion for VAT. As it can be seen from the chart, the share of VAT revenues required to match the each country's Budget contribution is below 15% for all MSs.

Figure 28 – Sufficiency of VAT

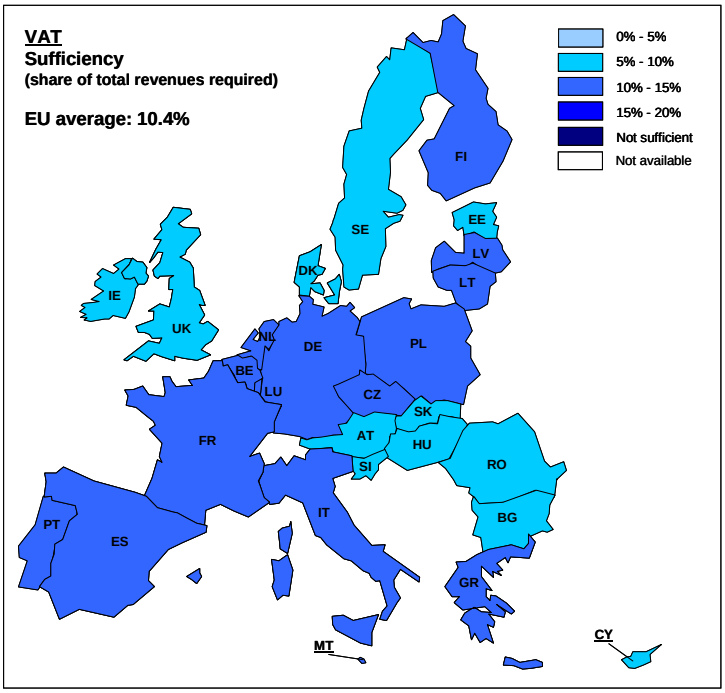
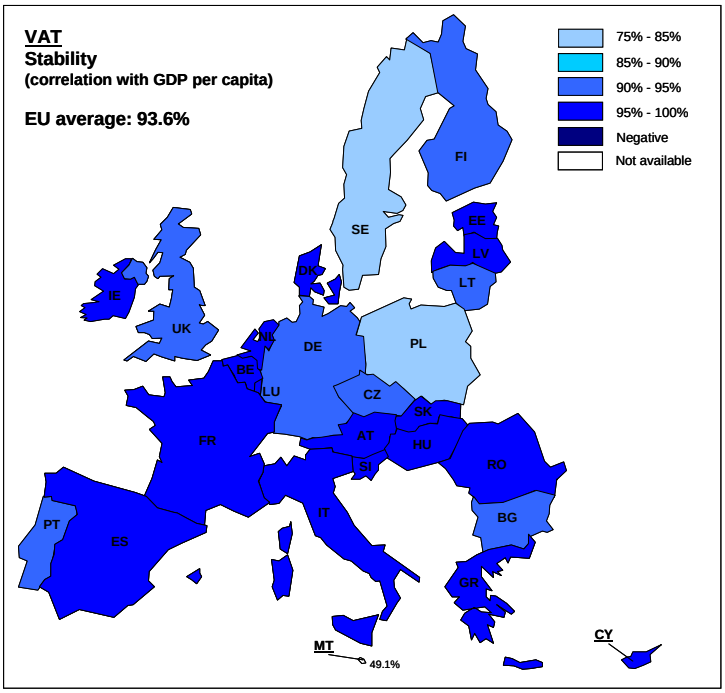


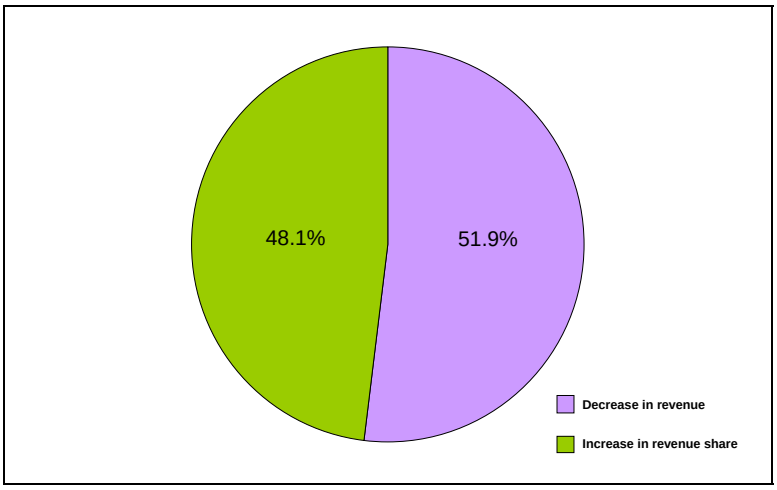
Figure 29 shows the level of correlation of VAT revenues with movement in GDP per capita. It can be seen that for all countries, with the exception of Malta, Poland and Sweden the estimated correlation is always above 90%. The lower correlation values for Poland and Sweden appears to be due to brief economic slow-downs during which VAT revenues continued to grow.

Figure 29 – Stability of VAT



Finally, Figure 30 shows how the current contributions of MSs would change if a single VAT rate, equal to the EU average, were to be applied to all EU countries. It can be seen that if a revenue share of 10.4% were to be applied to all MSs, 48.1% of them would be required to transfer more than their 2005 contribution to the EU, while 51.9% would need to transfer less tax revenues to the EU.

Figure 30 – Change from current position: VAT



2.2 Motor Fuel Excise Duty

Table 7 shows the summary of results for Motor Fuel Excise Duty. The revenues from this tax have grown in all countries, with the highest average growth achieved in Romania (52.7%) and the lowest recorded in France (0.1%). Revenues are generally correlated with GDP, with some exceptions where correlation is as low as 30.6% (Finland). The share of revenues required to match each country's contribution to the EU budget ranges between 28.2% and 81.8%, but in some cases the revenues produced are not sufficient to match the EU transfer.

Table 7 –Summary of results: MOTOR FUEL EXCISE DUTY

Member State	Average annual change 2000-2005	Correlation of revenues with GDP	Share of total revenues required	Indicative required excise rate (EUR per 1000 litres)
Belgium	2.2%	97.0%	71.1%	416
Czech Republic	18.2%	81.4%	46.6%	201
Denmark	0.9%	55.5%	72.1%	397
Germany	0.8%	38.7%	43.5%	296
Estonia	25.3%	99.0%	39.1%	139
Greece	2.3%	89.3%	66.6%	223
Spain	2.5%	98.8%	81.8%	341
France	0.1%	51.6%	62.5%	390
Ireland	6.1%	93.3%	Not sufficient	
Italy	2.0%	90.0%	57.5%	324
Cyprus	34.8%	92.6%	44.8%	163
Latvia	18.8%	97.0%	37.6%	128
Lithuania	6.1%	89.8%	54.9%	194
Luxembourg	n/a	n/a	n/a	n/a
Hungary	7.2%	98.6%	40.2%	175
Malta	2.7%	48.4%	61.3%	306
Netherlands	4.0%	90.2%	Not sufficient	
Austria	5.6%	95.6%	54.9%	253
Poland	9.5%	79.5%	42.0%	173
Portugal	7.9%	91.4%	47.5%	280
Slovenia	10.2%	94.0%	38.0%	149
Slovakia	15.0%	99.0%	38.5%	166
Finland	0.6%	30.6%	62.6%	368
Sweden	1.6%	78.3%	82.4%	416
UK	0.7%	61.7%	28.2%	187
Bulgaria	n/a	n/a	n/a	
Romania	52.7%	90.5%	42.9%	155
EU-15	**2.7%**	**75.9%**	**60.9%**	**324**
EU-25	**7.7%**	**80.9%**	**53.3%**	**258**
EU-27	**9.5%**	**81.3%**	**52.9%**	**254**

Figure 31 provides a summary of the fulfilment of the sufficiency criterion for motor fuel excise duty. It can be seen that two MSs (Ireland and the Netherlands) do not raise sufficient revenues to match their 2005 EU Budget contribution net of Traditional Own Resources and the UK rebate. Most MSs would need to dedicate between 25% and 50% of their revenues, while Sweden and Spain would need a transfer of at least 75% of their revenues.

Figure 31 – Sufficiency of MOTOR FUEL EXCISE DUTY

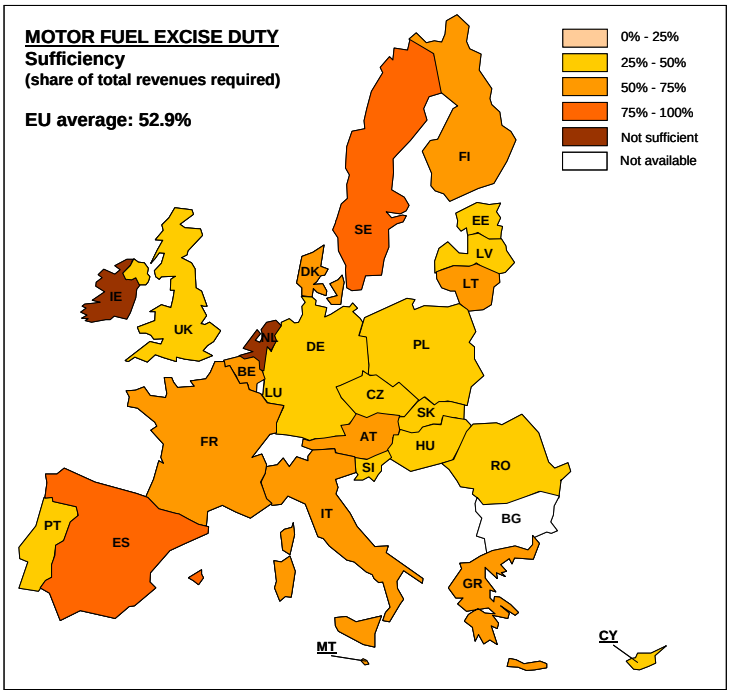
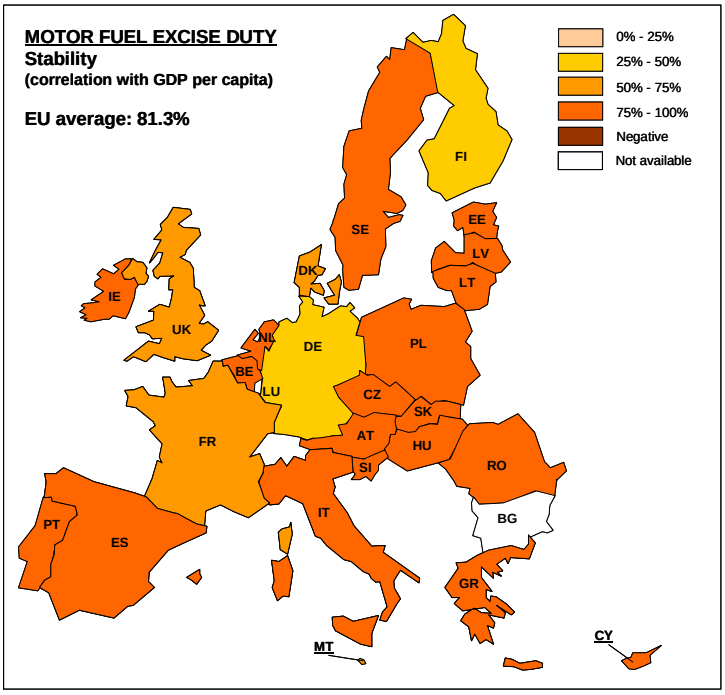


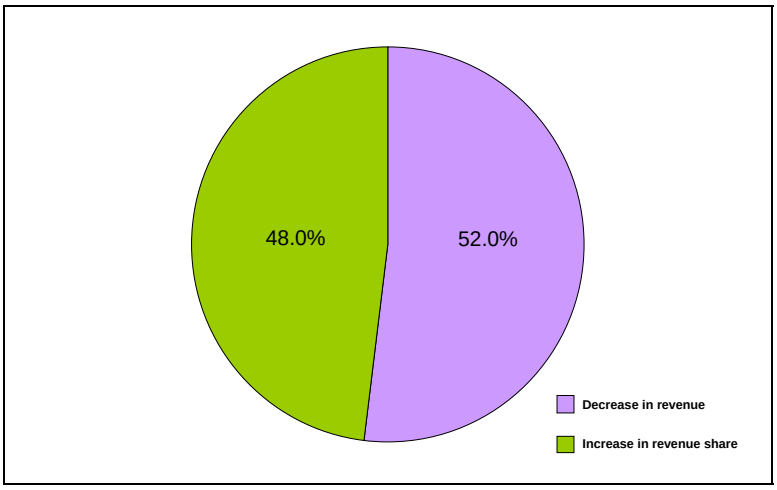
Figure 32 shows the level of correlation of motor fuel excise duty revenues with movements in GDP per capita. It can be seen that for most member states the estimated correlation is above 75%. Revenues in Denmark, France and the UK show a lower correlation of between 50% and 75%, while in Finland and Germany the level of correlation is below 50%.

Figure 32 – Stability of MOTOR FUEL EXCISE DUTY



Finally, Figure 33 shows how the current contributions of MSs would change if a single motor fuel excise duty rate, equal to the EU average, were to be applied to all EU countries. It can be seen that if a revenue share of 52.9% were to be applied to all MSs, about 48.0% of them would be required to transfer to the EU more than their 2005 contribution, while about 52.0% would need to transfer less tax revenue to the EU.

Figure 33 – Change from current position: MOTOR FUEL EXCISE DUTY



2.3 Alcohol and Tobacco Excise Tax Duties

Table 8 shows the summary of results for Alcohol and Tobacco Excise Duties. The revenues from this tax have grown in all countries, with the exception of Denmark, Finland and Sweden. The highest average growth was achieved in Romania (36.3%) and the lowest was recorded in Denmark (a decline of -2.6%). Revenues are generally correlated with GDP, with the exception of the aforementioned countries and Malta. The average share of revenues required to match each country's contribution to the EU budget is 68.9%, but in many cases the revenues produced are not sufficient to match the EU budget contribution.

Table 8 – Summary of results: ALCOHOL AND TOBACCO EXCISE DUTY

Member State	Average annual change 2000-2005	Correlation of revenues with GDP	Share of total revenues required
Belgium	3.8%	88.8%	Not sufficient
Czech Republic	6.1%	92.2%	87.3%
Denmark	-2.6%	-91.6%	Not sufficient
Germany	3.8%	82.7%	97.9%
Estonia	15.8%	98.3%	41.3%
Greece	5.7%	93.2%	62.2%
Spain	6.8%	99.0%	Not sufficient
France	2.9%	91.8%	Not sufficient
Ireland	2.9%	87.2%	59.5%
Italy	4.3%	83.4%	Not sufficient
Cyprus	19.2%	97.1%	61.3%
Latvia	12.9%	93.6%	68.9%
Lithuania	5.7%	84.9%	81.6%
Luxembourg	12.6%	95.8%	Not sufficient
Hungary	9.0%	97.3%	76.6%
Malta	10.7%	14.5%	51.9%
Netherlands	3.9%	90.9%	Not sufficient
Austria	2.0%	82.7%	Not sufficient
Poland	6.1%	67.5%	48.9%
Portugal	4.7%	56.1%	94.4%
Slovenia	14.8%	99.7%	78.8%
Slovakia	14.3%	94.0%	66.0%
Finland	-2.2%	-60.2%	85.6%
Sweden	0.0%	-64.0%	Not sufficient
UK	3.9%	61.2%	45.2%
Bulgaria	n/a	n/a	
Romania	36.3%	93.3%	64.5%
EU-15	**3.5%**	**53.7%**	**74.1%**
EU-25	**6.7%**	**65.5%**	**69.2%**
EU-27	**7.8%**	**66.5%**	**68.9%**

Figure 34 provides a summary of the fulfilment of the sufficiency criterion for alcohol and tobacco excise duties. As can be seen from the chart, in nine MSs the revenues raised through alcohol and tobacco excise duties are not sufficient to match these countries' recent contributions to the EU Budget. Greece, Ireland, Latvia, Romania, Slovakia, Cyprus and Malta would need to transfer between 50% and 75% of their revenues, while, for the majority of the remaining countries, the required transfer would be between 75% and 100% of total revenues. Only Estonia, Poland and the United Kingdom would need to transfer less than 50% of total revenues.

Figure 34 – Sufficiency of ALCOHOL AND TOBACCO EXCISE DUTY

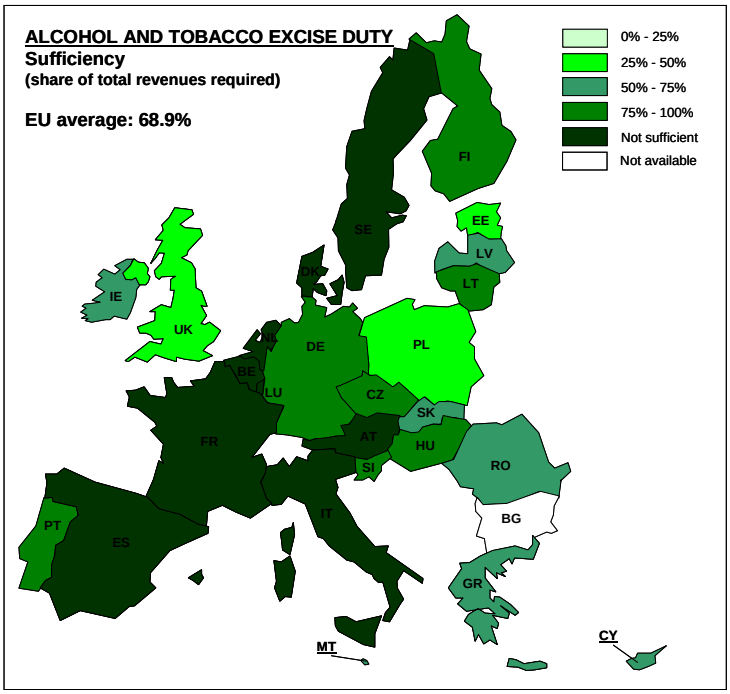
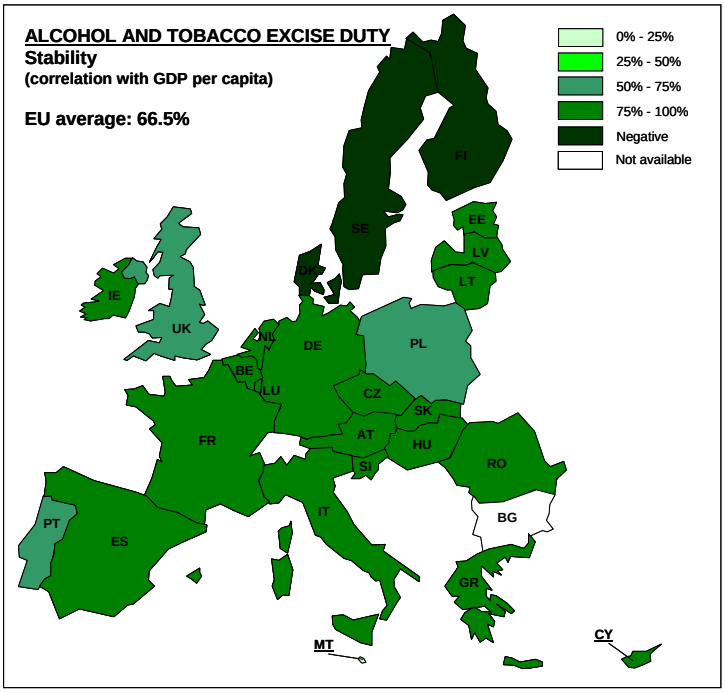


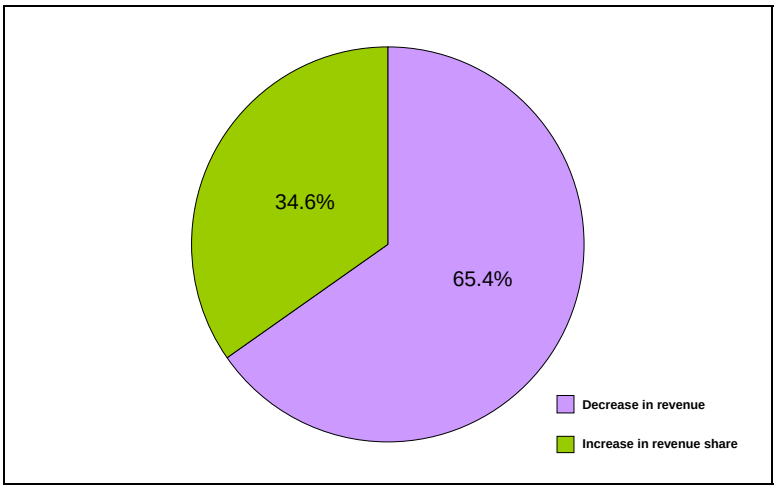
Figure 35 shows the level of correlation of alcohol and tobacco excise duty revenues with movements in GDP per capita. It can be seen that for most MS's, the estimated correlation level ranges between 75% and 100%. Denmark, Finland and Sweden constitute a notable exception, showing negative correlation between revenues and GDP.

Figure 35 – Stability of ALCOHOL AND TOBACCO EXCISE DUTY



Finally, Figure 36 shows how the current contributions of MSs would change if a single alcohol and tobacco excise duty rate, equal to the EU average, was to be applied to all EU countries. It can be seen that if a revenue share of 66.5% were to be applied to all MSs, about 34.6% of them would be required to transfer more than their 2005 contribution to the EU, while about 65.4% would need to transfer less tax revenues to the EU.

Figure 36 – Change from current position: ALCOHOL AND TOBACCO EXCISE DUTY



2.4 Corporate Profit tax

Table 9 shows the summary of results for Corporate Profit tax. The revenues from this tax have grown in all countries, with the exception of Poland, Portugal, Finland and the United Kingdom. The highest average growth was achieved in Lithuania (53.7%) and the lowest was recorded in Finland (a decline of -7.9%).While for some countries the correlation of revenues with GDP is high, in others it is very low and even negative. The average share of revenues required to match each country's contribution to the EU budget is 32.1%.

Table 9 – Summary of results: CORPORATE PROFIT TAX

Member State	Average annual change 2000 - 2005	Correlation of revenues with GDP	Share of total revenues required
Belgium	5.0%	86.3%	25.9%
Czech Republic	12.0%	94.2%	18.9%
Denmark	7.8%	85.4%	21.3%
Germany	52.1%	0.0%	92.4%
Estonia	28.7%	91.0%	52.5%
Greece	3.2%	60.4%	24.9%
Spain	16.0%	99.0%	23.3%
France	1.1%	-25.6%	39.3%
Ireland	7.3%	98.2%	22.9%
Italy	1.4%	-12.0%	36.0%
Cyprus	3.0%	-10.8%	15.6%
Latvia	21.6%	97.2%	42.1%
Lithuania	53.7%	94.9%	39.6%
Luxembourg	3.4%	19.4%	12.0%
Hungary	8.3%	94.4%	42.7%
Malta	10.3%	1.7%	20.9%
Netherlands	1.1%	-28.3%	26.1%
Austria	9.1%	17.9%	38.5%
Poland	-0.2%	-2.5%	52.3%
Portugal	-3.2%	-75.5%	38.1%
Slovenia	30.4%	95.7%	30.9%
Slovakia	12.1%	96.5%	29.5%
Finland	-7.9%	-86.8%	25.2%
Sweden	13.9%	89.3%	21.2%
UK	0.1%	-13.0%	19.6%
Bulgaria	8.7%	90.6%	26.7%
Romania	28.8%	91.2%	29.4%
EU-15	**7.4%**	**21.0%**	**31.1%**
EU-25	**11.6%**	**38.7%**	**32.5%**
EU-27	**12.1%**	**42.3%**	**32.1%**

Figure 37 provides a summary of the fulfilment of the sufficiency criterion for corporate profit tax. Most MS's would need to transfer between 25% and 50% of their revenues to the EU. Germany would have to transfer almost the entirety (92.4%) of its corporate tax revenues. Estonia and Poland, on the other hand, would need to transfer between 50% and 75%, while Cyprus, Czech Republic, Ireland, Greece, Luxembourg, Malta, the United Kingdom, Sweden, Denmark and Spain would only have to transfer between 0% and 25% of their revenues from corporate tax.

Figure 37 – Sufficiency of CORPORATE PROFIT TAX

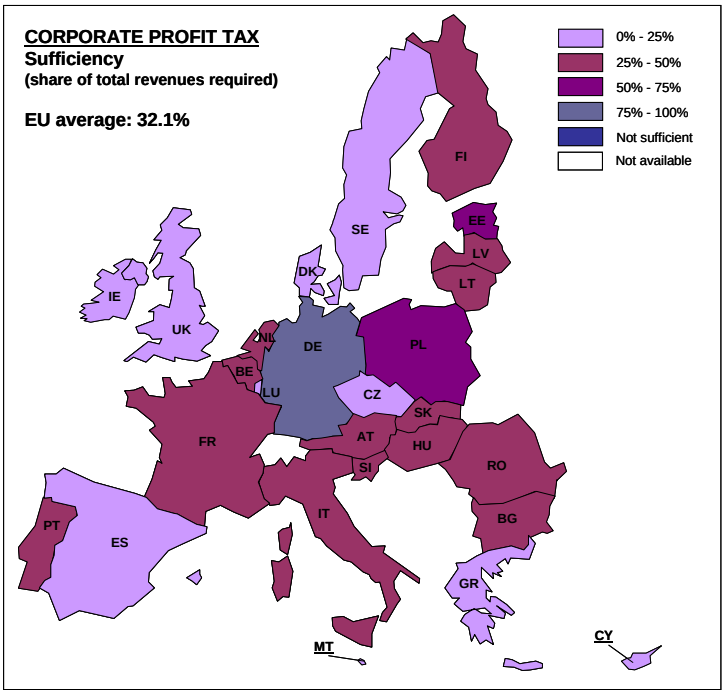
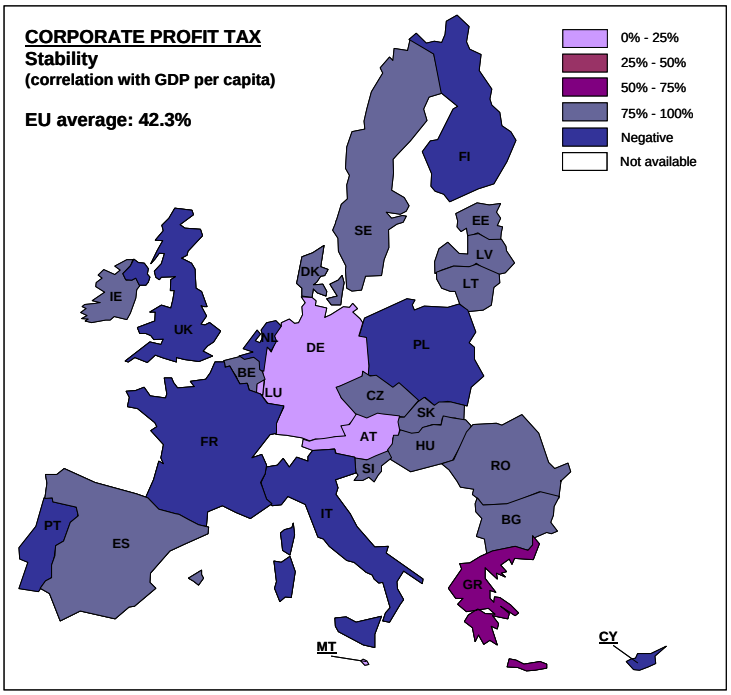


Figure 38 shows the level of correlation of corporate profit tax revenues with movements in GDP per capita. It can be seen that in eight MSs the estimated correlation is negative. In the majority of the remaining MSs, the estimated correlation ranges between 75% and 100%. In Austria, Malta and Germany the estimated correlation is very low (between 0% and 25%), while in Greece it ranges between 50% and 75%.

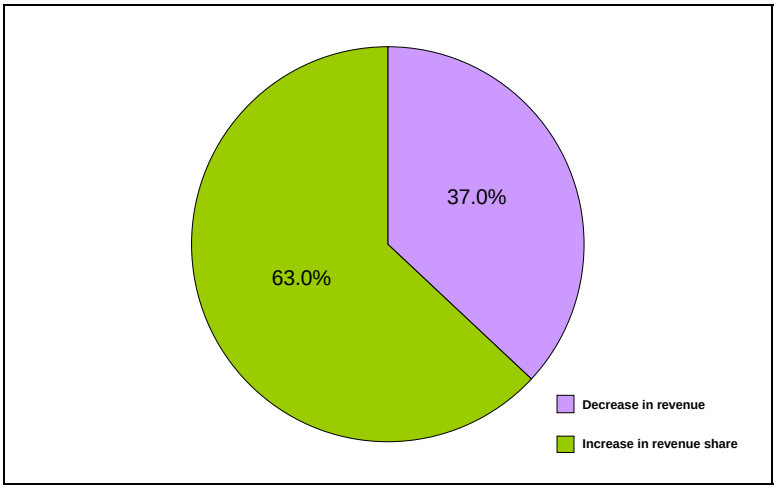
Figure 38 – Stability of CORPORATE PROFIT TAX



Finally, Figure 39 shows how the current contributions of MSs would change if a single corporate profit tax rate, equal to the EU average, were to be applied to all EU countries. It can be seen that if a revenue share of 42.3% were to be applied to all MSs, about 63.0% of them would be required to transfer more than their 2005 contribution to the EU, while about 37.0% would need to transfer less

tax revenues to the EU.

Figure 39 – Change from current position: CORPORATE PROFIT TAX



3 Belgium

3.1 Summary of results

Belgium's total GDP in 2005 was approximately EUR 299bn. According to the EU 2005 Budget, the level of annual funding to be provided by Belgium to the EU net of Traditional Own Resources and the UK rebate was about EUR 2,651m (equivalent to about 0.9% of its GDP).

Table 10 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Belgium since 2000.

Table 10 – GDP and Consumer Expenditure: BELGIUM

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	251,741	258,883	267,652	274,658	289,509	298,541
GDP per capita (EUR)	24,586	25,225	25,961	26,522	27,847	28,580
Consumer Expenditure per capita (EUR)	18,500	19,100	19,700	20,300	21,000	21,700

Source: Eurostat

On average, total GDP grew by about 3.5% per annum. GDP per capita grew by about 3.1% per annum. Consumption expenditure grew at approximately 3.2% on average per annum.

Table 11 summarises the results of our assessment of the candidate taxes for Belgium. A detailed analysis of each tax is presented in the remainder of this section.

Table 11 – Summary of the assessment of candidate taxes: BELGIUM

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU-27 average
VAT	4.0%	97.0%	12.7%	2.3%
Duty on motor fuel	2.2%	97.0%	71.1%	20.5%
Duties on alcohol and tobacco	3.8%	88.8%	not sufficient	
Corporate profit tax	5.0%	86.3%	25.9%	-6.2%

Source: Deloitte calculation

The revenues from all the taxes considered grew during the period under analysis. Corporate profit tax revenues showed the highest rate of growth at 5.0% per annum, while the revenues from the excise duty on motor fuel grew at the lowest rate of 2.2%.

All revenues streams appear to be positively related to the country's GDP per capita, with the revenues from VAT and the duty on motor fuel showing very high correlation factors of 97.0%.

All tax candidates, apart from duties on alcohol and tobacco, generate sufficient revenues to match Belgium's recent contribution to the EU Budget.

The share of VAT revenues required is 2.3 percentage points higher than the average share across the EU 27 countries, while the share of motor fuel duty revenues required is 20.5 percentage points higher than the European average. The share of corporate profit tax revenues is 6.2 percentage points below the EU-27 average.

3.2 VAT

Table 12 shows the level of VAT revenues obtained by Belgium since 2000. The National Bank of Belgium, the source of the information used for this analysis, was unable to provide us with data on the breakdown of VAT revenues into its components

Table 12 – VAT Revenues: BELGIUM

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	17,238	16,999	18,020	18,175	19,786	20,941
% annual change		-1.4%	6.0%	0.9%	8.9%	5.8%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: National Bank of Belgium ([9])

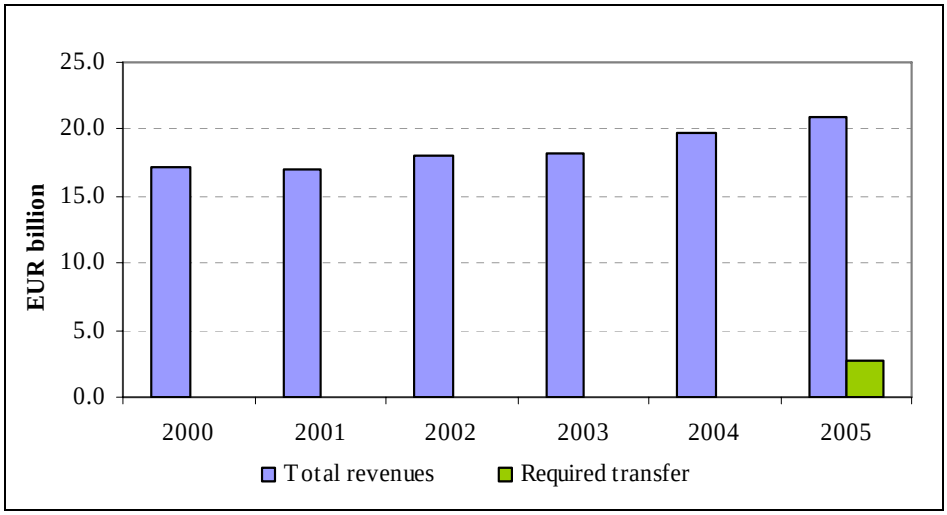
The average annual change in VAT revenues was 4.0%. The revenues from VAT grew at a high rate since 2002, with the exception of 2003 when revenue only grew by 0.9%. Revenues from VAT are highly correlated with movements in GDP per capita. The estimated correlation is about 97.0%.

In order to raise a level of revenues equal to Belgium's 2005 EU Budget contribution, about 12.7% of total VAT revenues would need to be dedicated to the new EU tax.

Assuming all VAT revenues are raised at the standard rate of 21%, the rate needed for the EU tax would be about 2.7%. This would yield a modified MS VAT rate of 18.3%.

Figure 40 shows the variation of VAT revenues compared with the transfer required to match Belgium's contribution to the EU Budget.

Figure 40 – Total VAT revenues vs. required transfer: BELGIUM



[9] Address: www.nbb.be, internal documents provided by Mr Claude Modart at NBB.

3.3 Excise Duty on Motor Fuel

Table 13 shows the level of revenues obtained by Belgium since 2000 through an excise duty on motor fuel.

Table 13 – Motor Fuel Excise Duty revenues: BELGIUM

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	3,343	3,346	3,384	3,459	3,674	3,729
% annual change		0.1%	1.1%	2.2%	6.2%	1.5%

Source: National Bank of Belgium ([10])

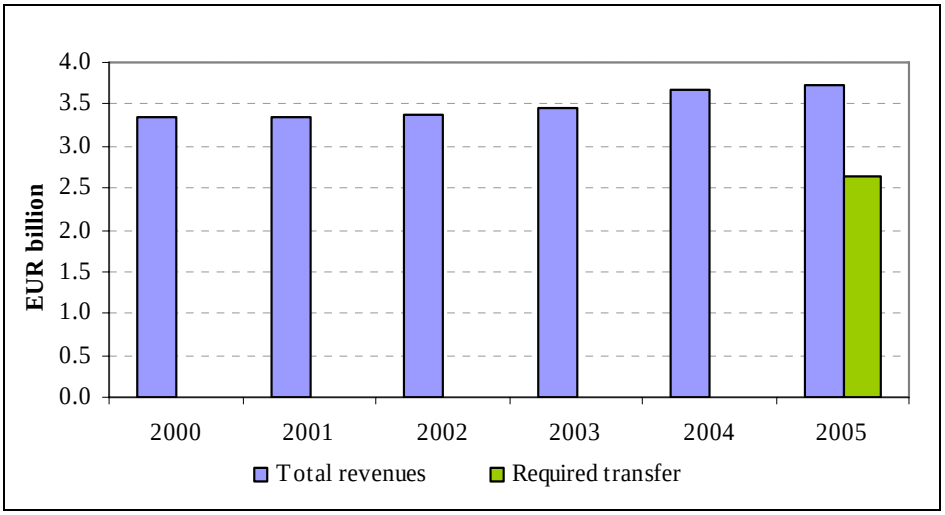
The average annual change in revenues from motor fuel excise duties was 2.2%. The revenues grew steadily over the time period under analysis, with the highest growth rate observed in 2004 (6.2%).

Revenues from the excise duty on motor fuel grew constantly over time and appear to be closely correlated with movements in GDP per capita, with a correlation factor equal to about 97.0%.

In order to finance Belgium's 2005 EU budget contribution, 71.1% of revenues from this tax would need to be dedicated to the new tax.

As the average motor fuel excise duty is approximately EUR 586 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 416 per 1000 litres would need to be transferred to the EU. This can be seen in Figure 41.

Figure 41 – Total revenues from Motor Fuel Excise Duty vs. required transfer: BELGIUM



[10] Address: www.nbb.be, internal documents provided by Mr Claude Modart at NBB.

3.4 Excise Duty on Alcohol and Tobacco

Table 14 shows the level of revenues obtained by Belgium since 2000 through excise duties on alcohol and tobacco.

Table 14 – Alcohol and Tobacco Excise Duties revenues: BELGIUM

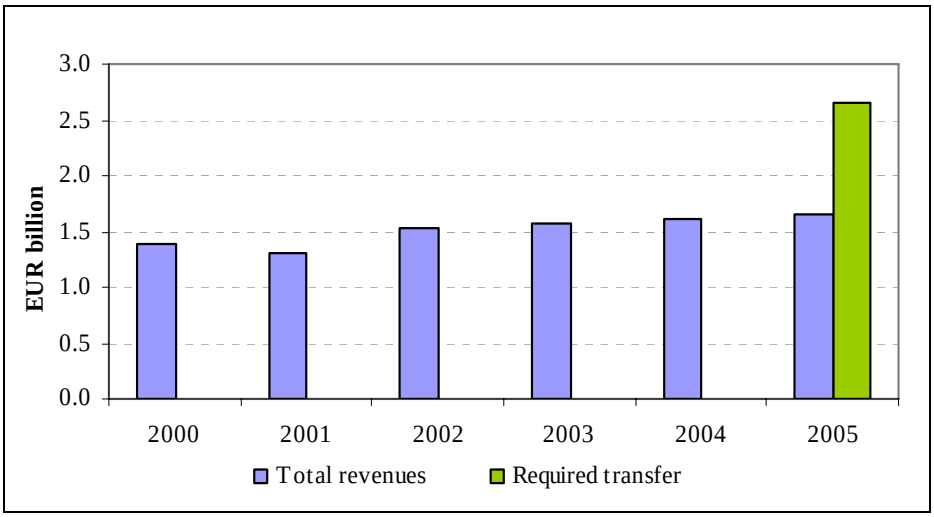
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,380	1,302	1,531	1,565	1,619	1,644
% annual change		-5.6%	17.6%	2.2%	3.4%	1.6%
Alcohol	255	253	250	237	245	243
Tobacco	1,125	1,049	1,281	1,329	1,373	1,401

Source: National Bank of Belgium ([11])

Revenues from these taxes increased since 2002, having experienced a decline in 2001. In 2002, the growth rate peaked at 17.6% per annum. The average annual growth rate was about 3.8%. The correlation with GDP per capita is relatively high and positive, with an estimated correlation coefficient equal to 88.8%.

The combined revenues obtained from these two types of excise duties are not sufficient to match Belgium's 2005 EU Budget contribution, as shown in Figure 42.

Figure 42 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: BELGIUM



[11] Address: www.nbb.be, internal documents provided by Mr Claude Modart at NBB.

3.5 Tax on Corporate Profits

Table 15 shows the level of revenues obtained by Belgium since 2000 through Corporate Profit tax.

Table 15 – Corporate Profit Tax revenues: BELGIUM

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	8,089	8,091	8,142	7,912	9,210	10,222
% annual change		0.0%	0.6%	-2.8%	16.4%	11.0%

Source: National Bank of Belgium ([12])

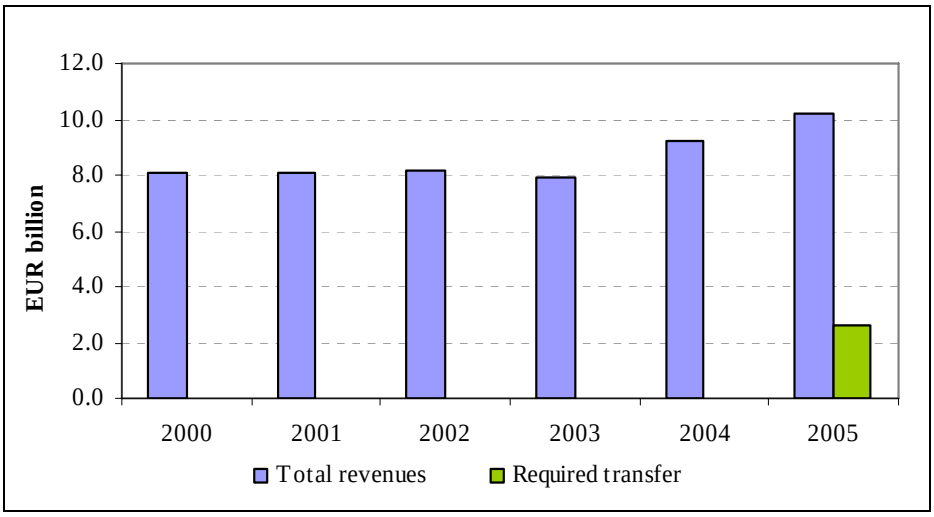
Until 2002, revenues from this tax were relatively constant. The subsequent year revenues declined, however, since then, revenues grew at very high rates of 16.4% in 2004 and 11.0% in 2005. Since 2001, average annual growth was below one percent, possibly owing to falling business investment level and subdued export growth.([13])

The average annual growth rate was about 5.0%. Revenues from this tax seem to have a positive, and relatively high, correlation with GDP per capita, equal to about 86.3%.

In order to raise a level of revenues equal to Belgium's 2005 EU Budget contribution, about 25.9% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 43 shows the variation of corporate profit tax revenues compared with the transfer required to match Belgium's contribution to the EU Budget.

Figure 43 – Total revenues from Corporate Profit Tax vs. required transfer: BELGIUM



[12] Address: www.nbb.be, internal documents provided by Mr Claude Modart at NBB.
[13] IMF (2004), *Public Information Notice: IMF Concludes 2003 Article IV Consultation with Belgium*. Available at: http://www.imf.org/external/np/sec/pn/2004/pn0413.htm

4 Czech Republic

4.1 Summary of results

Czech Republic's total GDP in 2005 was approximately EUR 99,7bn. According to the EU 2005 Budget, the level of annual funding to be provided by Czech Republic to the EU net of Traditional Resources and the UK rebate was equal to about EUR 844m (equivalent to about 0.8% of its GDP).

Table 16 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Czech Republic since 2000.

Table 16 – GDP and Consumer Expenditure: CZECH REPUBLIC

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	61,495	69,045	80,004	80,924	87,205	99,733
GDP per capita (EUR)	5,983	6,725	7,839	7,931	8,540	9,758
Consumer Expenditure per capita (EUR)	4,400	4,900	5,800	6,000	6,200	7,000

Source: Eurostat

On average, total GDP grew by about 10.3% per annum. GDP per capita grew by about 10.4% per annum. Consumption expenditure grew at approximately 9.9% on average per annum.

Table 17 summarises the results of our assessment of the candidate taxes for Czech Republic. A detailed analysis of each tax is presented in the remainder of this section.

Table 17 – Summary of the assessment of candidate taxes: CZECH REPUBLIC

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU-27 average
VAT	9.0%	91.4%	11.7%	1.3%
Duty on motor fuel	18.2%	81.4%	46.6%	-6.3%
Duties on alcohol and tobacco	6.1%	92.2%	87.3%	18.3%
Corporate profit tax	12.0%	94.2%	18.9%	-13.2%

Source: Deloitte calculation

The revenues from all candidate taxes shown in the table above grew during this time period. The revenues from excise duty on motor fuel showed the highest rate of growth of 18.2%, but the other taxes also showed relatively high annual growth rates.

All revenue flows appear to be highly correlated with the Czech Republic's GDP per capita, which was also growing at a high rate of 10.4% annually.

All tax candidates generate sufficient revenues to match the country's 2005 EU contribution.

The share of VAT revenues required is only 1.3 percentage points higher than the average share of VAT revenues required across the EU 27 countries. Conversely, the shares of duty on motor fuel revenues and corporate profit tax revenues required are respectively 6.3 and 13.2 percentage points lower than the EU 27 average. Duties on alcohol and tobacco are 18.3 percentage point higher the EU 27 average.

4.2 VAT

Table 18 shows the level of VAT revenues obtained by Czech Republic since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 18 – VAT Revenues: CZECH REPUBLIC

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	4,753	5,020	5,217	5,524	6,881	7,234
% annual change		5.6%	3.9%	5.9%	24.6%	5.1%
VAT on domestic exchanges	3,653	3,793	4,049	4,254	5,424	5,678
VAT on imports	1,101	1,227	1,168	1,269	1,458	1,556

Source: Czech Statistical Office ([14])

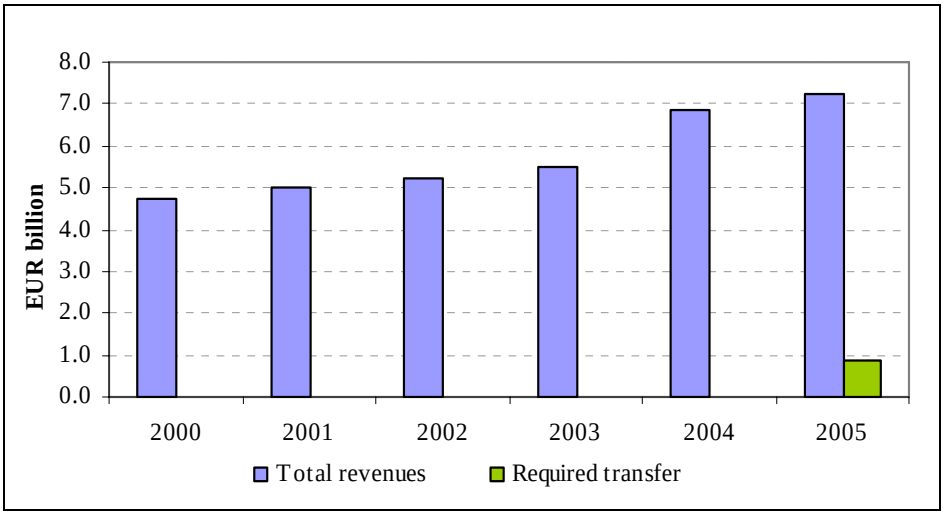
The average annual change for VAT revenues was 9.0%. Revenues from domestic VAT account on average for about 77.4% of total VAT revenues. Revenues from VAT grew over time and were also highly correlated with GDP per capita. The estimated correlation factor is equal to approximately 91.4%.

To raise a level of revenues equal to the country's 2005 EU Budget contribution about 11.7% of total VAT revenues would be required. If only domestic VAT were to be considered, then about 14.9 % of these revenues would need to be transferred to the EU.

Assuming all VAT revenues are raised at the standard rate of 19%, the rate needed for the EU tax would be about 2.2%. This would yield a modified MS VAT rate of 16.8%.

Figure 44 shows the variation of VAT revenues compared with the transfer required to match the Czech Republic's contribution to the EU budget.

Figure 44 – Total VAT revenues vs. required transfer: CZECH REPUBLIC



[14] Address: www.czso.cz Internal documents provided to us by Jaroslav Sixta, jaroslav.sixta@gw.czso.cz

4.3 Excise Duty on Motor Fuel

Table 19 shows the level of revenues obtained by Czech Republic since 2000 through an excise duty on motor fuel.

Table 19 – Motor Fuel Excise Duty revenues: CZECH REPUBLIC

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	873	956	952	1,303	2,037	1,810
% annual change		9.5%	-0.4%	36.8%	56.4%	-11.1%

Source: Czech Statistical Office ([15])

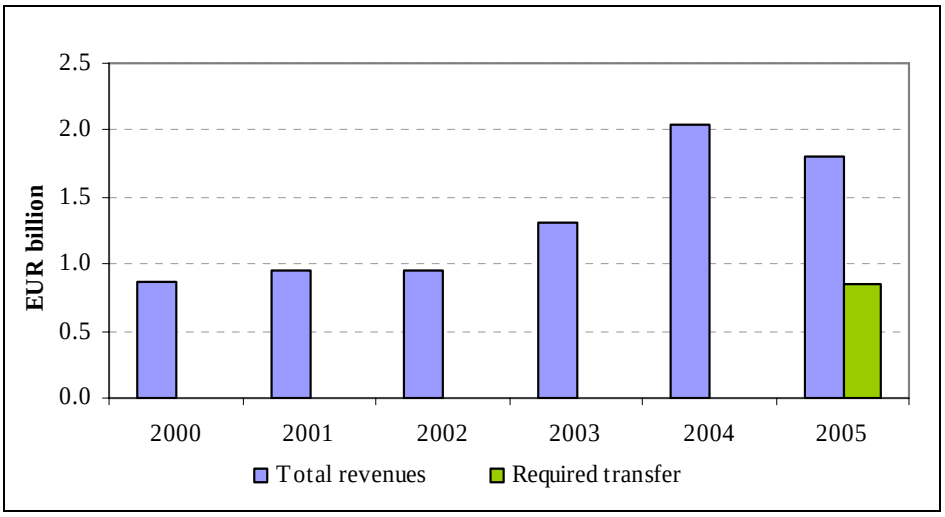
The average change in revenues from motor fuel excise duties was approximately 18.2% annually. In 2003 and 2004 the revenues were increasing at a high rate; however, in 2005 the growth rate declined to 11.1%. The correlation with GDP per capita was 81.4%.

In order to raise a level of revenues equal to the Czech Republic's recent EU Budget contribution, about 46.6% of the total revenues must be set aside to the new EU tax.

As the average motor fuel excise duty is approximately EUR 432 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 201 per 1000 litres would need to be transferred to the EU.

Figure 45 shows the variation of total fuel excise revenues set against the required transfer to match the Czech Republic's recent EU contribution.

Figure 45 – Total revenues from Motor Fuel Excise Duty vs. required transfer: CZECH REPUBLIC



[15] Address: www.czso.cz Internal documents provided to us by Jaroslav Sixta, jaroslav.sixta@gw.czso.cz

4.4 Excise Duty on Alcohol and Tobacco

Table 20 shows the level of revenues obtained by Czech Republic since 2000 through excise duties on alcohol and tobacco.

Table 20 – Alcohol and Tobacco Excise Duties revenues: CZECH REPUBLIC

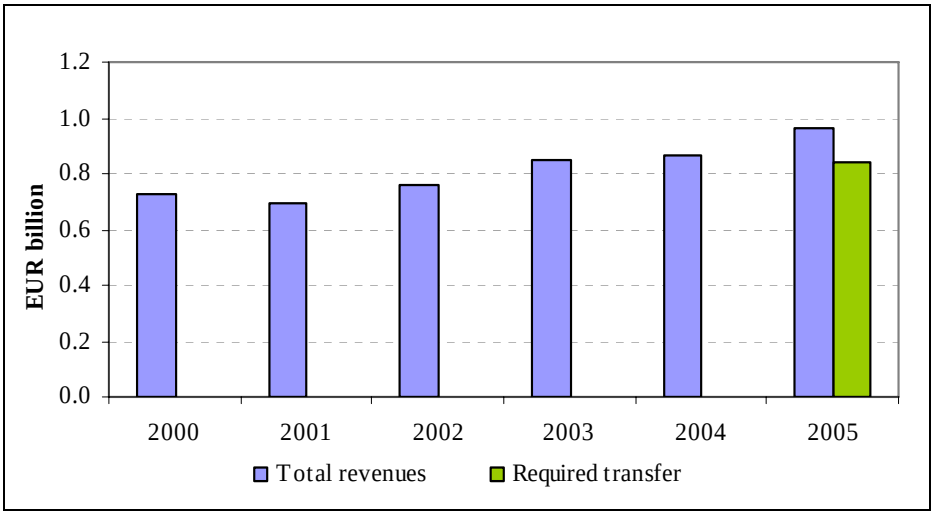
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	726	691	759	849	868	967
% annual change		-4.9%	9.9%	11.8%	2.3%	11.3%
Alcohol	279	298	271	275	239	280
Tobacco	447	393	488	574	630	687

Source: Czech Statistical Office ([16])

Revenues from these taxes showed relatively strong growth since 2002. In 2005 the revenues experienced a strong growth of 11.3% per annum. The average annual growth rate was about 6.1%. Correlation with GDP per capita is fairly high, with an estimate of 92.2%.

Adding up the total revenues from both alcohol and tobacco gives an amount that is sufficient to finance Czech Republic's EU contribution. The share needed to finance the 2005 contribution is 87.3% of total revenues, as shown in Figure 46.

Figure 46 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: CZECH REPUBLIC



[16] Address: www.czso.cz Internal documents provided to us by Jaroslav Sixta, jaroslav.sixta@gw.czso.cz

4.5 Tax on Corporate Profits

Table 21 shows the level of revenues obtained by Czech Republic since 2000 through corporate profit tax.

Table 21 – Corporate Profit Tax revenues: CZECH REPUBLIC

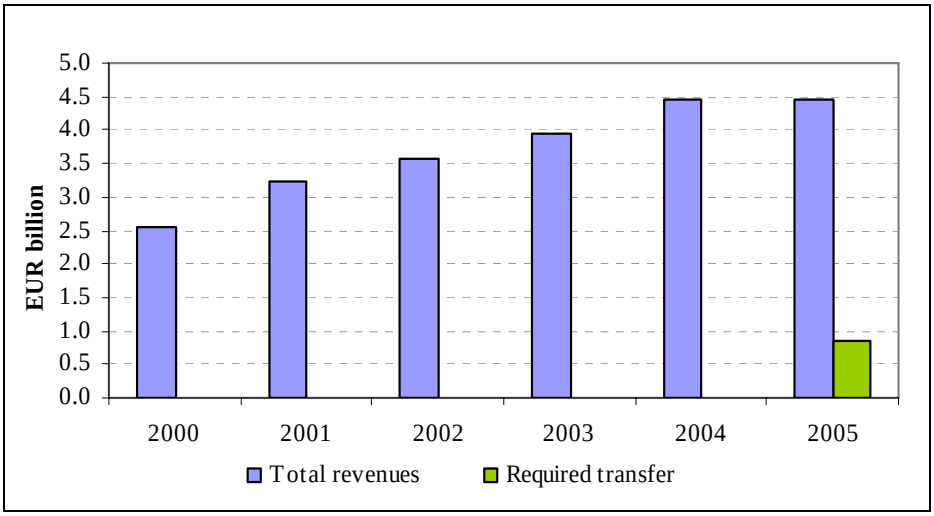
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,562	3,238	3,556	3,961	4,443	4,457
% annual change		26.4%	9.8%	11.4%	12.2%	0.3%

Source: Czech Statistical Office ([17])

The corporate profit tax revenues show stable growth throughout this period and the lowest growth rate being observed in 2005 at 0.3%. The average annual growth rate was about 12.0%. The revenues from the corporation tax have been growing in line with GDP per capita, which can be seen by the high correlation estimate of about 94.2%.

A share of about 18.9% of revenues is needed in order to raise a level of revenues equal to the Czech Republic's 2005 EU Budget Contribution. This finding is shown in Figure 47.

Figure 47 – Total revenues from Corporate Profit Tax vs. required transfer: CZECH REPUBLIC



[17] Address: www.czso.cz Internal documents provided to us by Jaroslav Sixta, jaroslav.sixta@gw.czso.cz

5 Denmark

5.1 Summary of results

Denmark's total GDP in 2005 was approximately EUR 209bn. According to the EU 2005 Budget, the level of annual funding to be provided by Denmark to the EU net of Traditional Resources and the UK rebate was about EUR 1,692m (equivalent to about 0.8% of its GDP).

Table 22 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Denmark since 2000.

Table 22 – GDP and Consumer Expenditure: DENMARK

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	173,598	179,226	184,744	189,641	197,222	208,546
GDP per capita (EUR)	32,570	33,505	34,413	35,226	36,539	38,538
Consumer Expenditure per capita (EUR)	23,700	24,400	25,300	26,100	27,300	28,600

Source: Eurostat

On average, total GDP grew by about 3.7% per annum. GDP per capita grew by about 3.4% per annum. Consumption expenditure grew at approximately 3.8% on average per annum.

Table 23 summarises the results of our assessment of the candidate taxes for Denmark. A detailed analysis of each tax is presented in the remainder of this section.

Table 23 – Summary of the assessment of candidate taxes: DENMARK

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU-27 average
VAT	4.7%	99.4%	8.1%	-2.3%
Duty on motor fuel	0.9%	55.5%	72.1%	19.2%
Duties on alcohol and tobacco	-2.6%	-91.6%	not sufficient	
Corporate profit tax	7.8%	85.4%	21.3%	-10.8%

Source: Deloitte calculation

The revenues from VAT, duty on motor fuel and corporate profit tax have been growing during the period under analysis, with corporate profit tax showing the highest rate of growth of 7.8% per annum. Revenues from duties on alcohol and tobacco have been declining at 2.6%.

The revenue streams from VAT and corporate profit tax appear to be highly correlated with the country's GDP per capita, while the duty on motor fuel shows a slightly lower correlation factor. Duties on alcohol and tobacco exhibit a negative correlation with GDP per capita.

Only the excise duties on alcohol and tobacco do not provide, on their own, revenues sufficient to match Denmark's recent contribution to the EU budget. However, a relatively high share of the revenues from duty on motor fuel (72.1%) would be required to match the 2005 transfer.

The shares of duties on motor fuel revenues required are 19.2 percentage points higher than the average revenue shares required across the EU 27 countries. Conversely, the share of VAT and corporate profit tax revenues required is respectively 2.3 and 10.8 percentage points lower than the European average.

5.2 VAT

Table 24 shows the level of VAT revenues obtained by Denmark since 2000. Statistics Denmark, the source of the information used for this analysis, was unable to provide us with data on the breakdown of VAT revenues into its components ([18]).

Table 24 – VAT Revenues: DENMARK

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	16,616	17,256	17,773	18,134	19,099	20,870
% annual change		3.9%	3.0%	2.0%	5.3%	9.3%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: Statistics Denmark ([19])

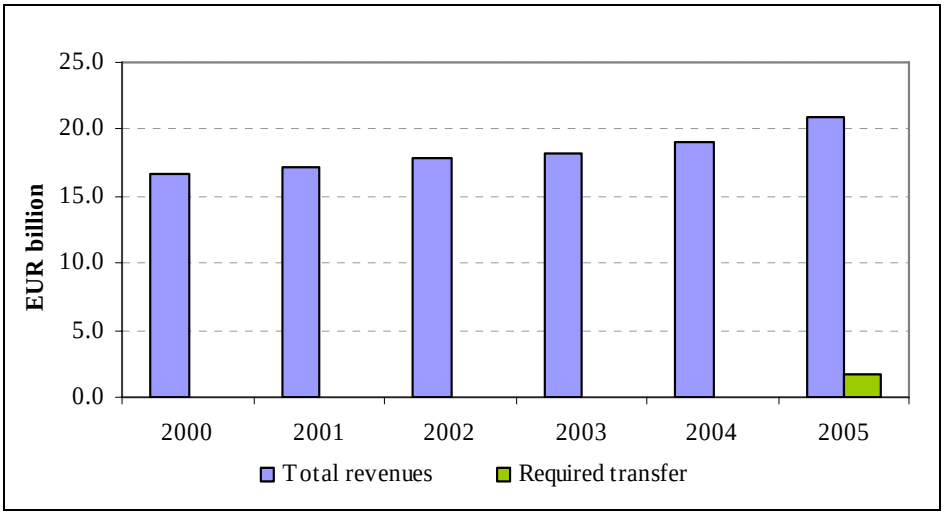
The average annual change in VAT revenues was 4.7%. Revenues from VAT were growing over time and experienced their highest growth rate in 2005 (9.3%). VAT revenues were also moving in line with GDP per capita; which can be seen by the high correlation factor of about 99.4%.

In order to raise a level of revenues equal to Denmark's 2005 EU Budget contribution, about 8.1% of total VAT revenues would need to be dedicated to the new EU tax.

Assuming that all VAT revenues are raised at the standard rate of 25% in Denmark, the required rate for the new EU tax would be approximately 2.0%, involving the modified MS VAT would equal 23%.

Figure 48 shows the variation of VAT revenues compared with the transfer required to match Denmark's contribution to the EU Budget.

Figure 48 – Total VAT revenues vs. required transfer: DENMARK



[18] Confirmed by Mr Per Svensson at Statistics Denmark
[19] Address: www.dst.dk/ , Internal documents provided to us by Mr Per Svensson PSV@dst.dk

5.3 Excise Duty on Motor Fuel

Table 25 shows the level of revenues obtained by Denmark since 2000 through an excise duty on motor fuel.

Table 25 – Motor Fuel Excise Duty revenues: DENMARK

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,250	2,331	2,369	2,400	2,438	2,346
% annual change		3.6%	1.6%	1.3%	1.6%	-3.8%

Source: Statistics Denmark ([20])

The average annual change in revenues from motor fuel excise duties was 0.9%. The growth rate decreased but remained fairly stable between 2001 and 2004. In the last year of the observation period, however, revenues declined at 3.8% per annum.

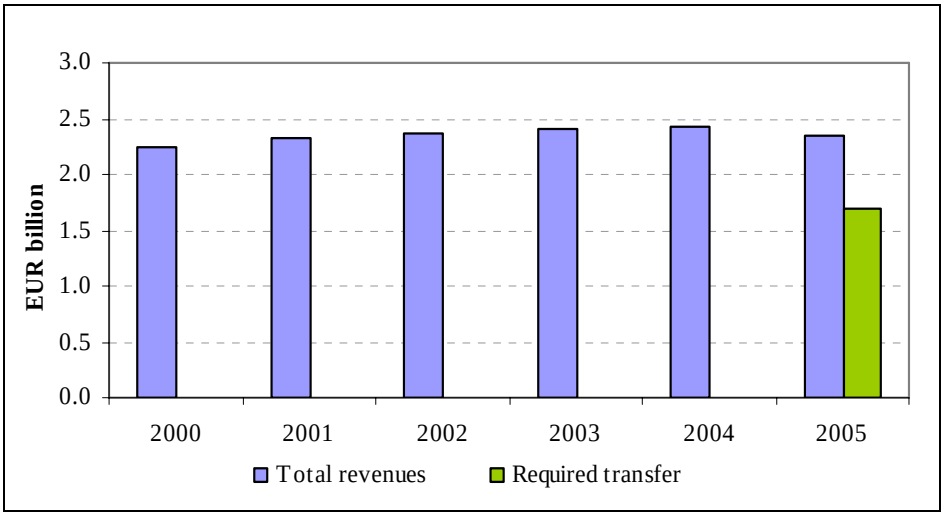
The correlation with GDP per capita is estimated at about 55.5%.

In order to raise a level of revenues equal to the country's 2005 EU Budget contribution, 72.1% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 551 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 397 per 1000 litres would need to be transferred to the EU.

Figure 49 shows the variation of total fuel excise revenues compared with the transfer required to match Denmark's contribution to the EU Budget.

Figure 49 – Total revenues from Motor Fuel Excise Duty vs. required transfer: DENMARK



[20] Address: www.dst.dk/ , Internal documents provided to us by Mr Per Svensson PSV@dst.dk

5.4 Excise Duty on Alcohol and Tobacco

Table 26 shows the level of revenues obtained by Denmark since 2000 through excise duties on alcohol and tobacco.

Table 26 – Alcohol and Tobacco Excise Duties revenues: DENMARK

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,610	1,589	1,602	1,587	1,443	1,407
% annual change		-1.3%	0.8%	-0.9%	-9.0%	-2.5%
Alcohol	595	579	571	548	499	441
Tobacco	1,015	1,009	1,031	1,039	944	965

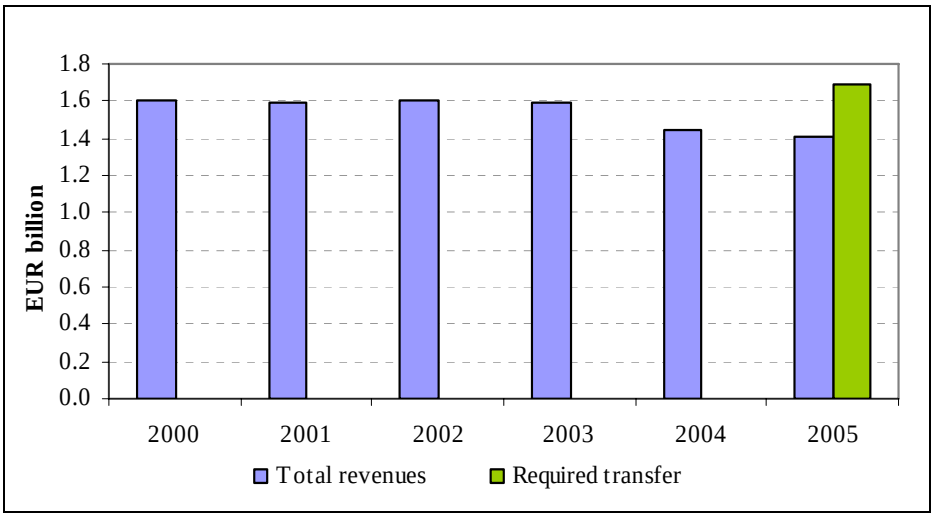
Source: Statistics Denmark ([21])

Revenues from these taxes declined in all years apart from 2002. The average annual rate of decline was about 2.6%. In the last two years of the time period under analysis, total revenues fell quite substantially by -9.0% in 2004 and -2.5% in 2005.

The correlation with GDP per capita is negative, with a coefficient of about -91.6%.

The combined revenues obtained from these two types of excise duties are not sufficient to match Denmark's 2005 EU Budget contribution, as shown in Figure 50.

Figure 50 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: DENMARK



[21] Address: www.dst.dk/ , Internal documents provided to us by Mr Per Svensson PSV@dst.dk

5.5 Tax on Corporate Profits

Table 27 shows the level of revenues obtained by Denmark since 2000 through Corporate Profit tax.

Table 27 – Corporate Profit Tax revenues: DENMARK

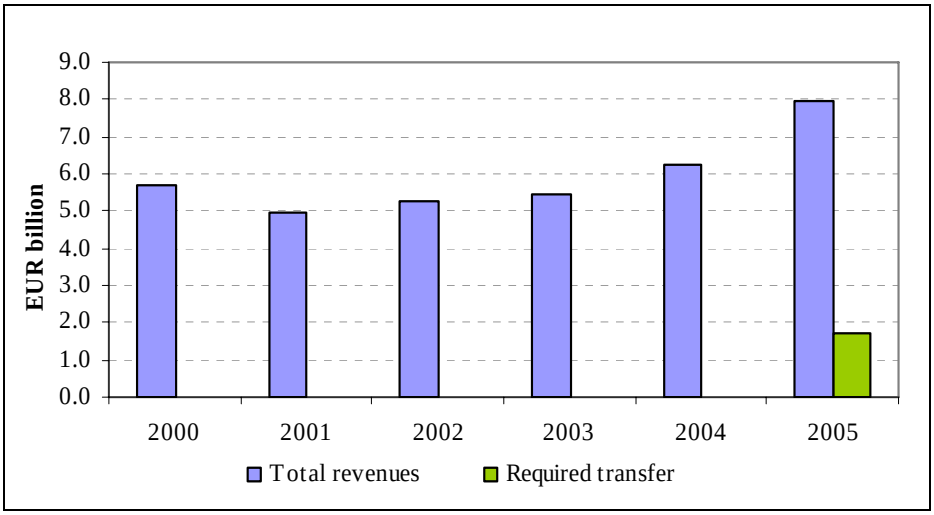
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	5,676	4,970	5,274	5,440	6,243	7,957
% annual change		-12.4%	6.1%	3.1%	14.8%	27.5%

Source: Statistics Denmark ([22])

Revenues from corporate profit tax grew since 2002. The decline in revenues in 2001 may be explained by a slowing down of the economy, which generated a temporary downturn in investment.([23]) In the last year of the observation period revenues from this tax increased substantially with an annual growth rate of 27.5% annually. Over this time period, the average annual growth rate was about 7.8%. Revenues from this tax have a correlation with GDP per capita of 85.4%.

In order to raise a level of revenues equal to Denmark's recent EU Budget contribution, about 21.3% of the revenues from this tax would need to be dedicated to the new EU tax. Figure 51 shows this finding.

Figure 51 – Total revenues from Corporate Profit Tax vs. required transfer: Denmark



[22] Address: www.dst.dk/ , Internal documents provided to us by Mr Per Svensson PSV@dst.dk
[23] IMF (2002), *Public Information Notice: 2002 Article IV Consultations: Concluding Statement*. Available at: http://www.imf.org/external/np/ms/2002/012302.htm

6 Germany

6.1 Summary of results

Germany's total GDP in 2005 was approximately EUR 2,241bn. According to the EU 2005 Budget, the level of annual funding provided by Germany to the EU net of Traditional Resources and the UK rebate was about EUR 17,412m (equivalent to about 0.8% of its GDP).

Table 28 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Germany since 2000.

Table 28 – GDP and Consumer Expenditure: GERMANY

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	2,062,500	2,113,160	2,143,180	2,161,500	2,207,200	2,241,000
GDP per capita (EUR)	25,102	25,689	25,997	26,188	26,744	27,163
Consumer Expenditure per capita (EUR)	19,500	20,100	20,300	20,600	20,800	21,100

Source: Eurostat ([24])

On average, total GDP grew by about 1.7% per annum. GDP per capita grew by about 1.6% per annum. Consumption expenditure grew at approximately 1.6% on average per annum.

Table 29 summarises the results of our assessment of the candidate taxes for Germany. A detailed analysis of each tax is presented in the remainder of this section.

Table 29 – Summary of the assessment of candidate taxes: GERMANY

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU-27 average
VAT	0.9%	93.5%	12.7%	2.3%
Duty on motor fuel	0.8%	38.7%	43.5%	-9.4%
Duties on alcohol and tobacco	3.8%	82.7%	97.9%	29%
Corporate profit tax	52.1%	0.0%	92.4%	60.3%

Source: Deloitte calculation

VAT revenues appear to be stable over time and highly correlated with Germany's GDP. The share of VAT revenues required to match Germany's current contribution to the EU Budget would be about 12.7%. Furthermore, the revenues from excise duty on motor fuel appear to be stable, although it does not appear to be particularly highly correlated with the country's GDP. The required share of revenues would in this case be equal to 43.5% of total revenues raised. Finally the tax on corporate profits does not appear to have any correlation with the country's GDP

All tax candidates appear to generate sufficient revenues to match Germany's transfer to the EU Budget.

The share of VAT revenues required is 2.3 percentage points higher than the EU 27 average. Revenues from duties on alcohol and tobacco and corporate profit tax are 29 and 60.3 percentage point above the EU average respectively. Conversely, the share of duty on motor fuel revenues required is 9.4 percentage points lower than the EU 27 average.

[24] Information on *GDP*, *Consumer Expenditure* and *Population*, Eurostat, *ibid.*

6.2 VAT

Table 30 shows the level of VAT revenues obtained by Germany since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 30 – VAT Revenues: GERMANY

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	131,190	132,000	132,040	132,370	134,770	136,870
% annual change		0.6%	0.0%	0.2%	1.8%	1.6%
VAT on domestic exchanges	97,020	97,900	99,180	98,410	102,430	150,230
VAT on imports	34,170	34,100	32,860	33,960	32,340	31,640

Source: Federal Statistical Office Germany *([25])*

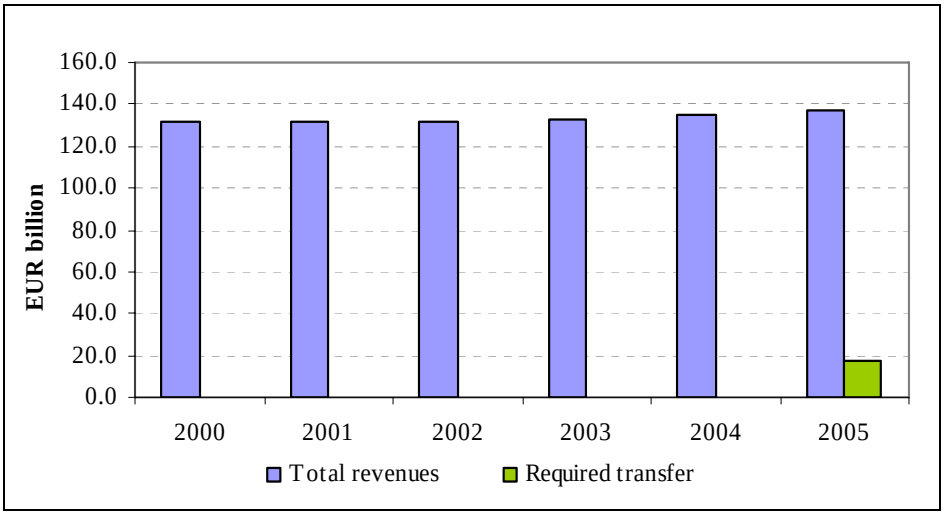
The average annual change in VAT revenues was 0.8%. Revenues from domestic VAT on average accounted for 75% of total VAT revenues. Revenues from VAT were stable over time and were also highly correlated with movements in GDP per capita. The estimated correlation is about 93.5%.

In order to raise a level of revenues equal to Germany's 2005 EU budget contribution, about 12.7% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT is considered, then 16.5% of these revenues would need to be transferred to the EU.

Assuming all VAT revenues are raised at the standard rate of 16%, the required rate for the new EU tax would be approximately 2%, while the modified MS VAT rate would be 14%.

Figure 52 shows the variation of VAT revenues compared with the transfer required to match Germany's contribution to the EU Budget.

Figure 52 – Total VAT revenues vs. required transfer: GERMANY



[25] Address: http://www.destatis.de, Internal documents provided to us by Ms Carmen Busch, carmen.busch@destatis.de,

6.3 Excise Duty on Motor Fuel

Table 31 shows the level of revenues obtained by Germany since 2000 through an excise duty on motor fuel.

Table 31 – Motor Fuel Excise Duty revenues: GERMANY

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	38,611	40,529	41,286	43,157	41,705	40,047
% annual change		5.0%	1.9%	4.5%	-3.4%	-4.0%

Source: Federal Statistical Office Germany *([26])*

The average annual change in revenues from motor fuel excise duties was 0.81%. However, the revenues from this tax tend to vary considerably from year to year.

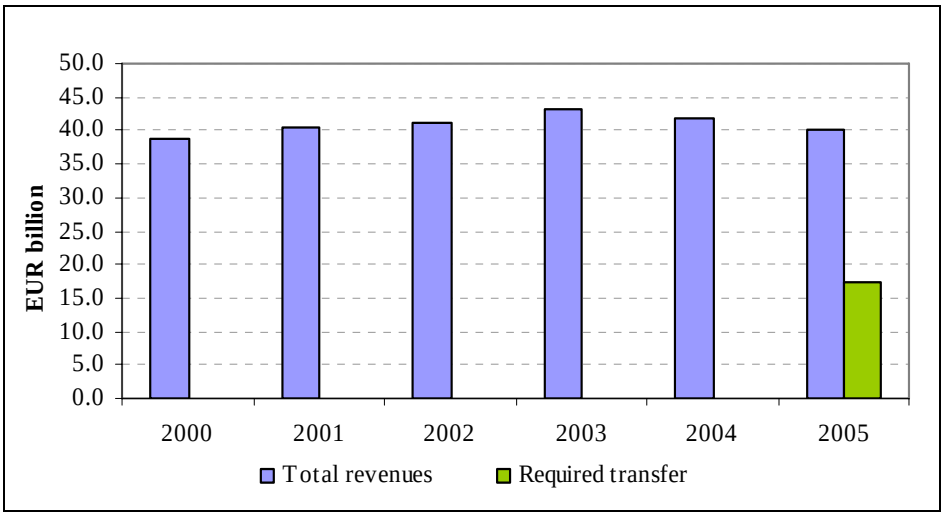
Revenues therefore do not appear to be very stable over time. Neither do revenues appear to be closely correlated with GDP per capita, with a correlation factor of about 38.7%.

In order to raise a level of revenues equal to Germany's 2005 EU budget contribution, about 43.5% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 682 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel); about EUR 296 per 1000 litres would need to be transferred to the EU.

Figure 53 shows the variation of total fuel excise revenues compared with the transfer required to match Germany's contribution to the EU Budget.

Figure 53 – Total revenues from Motor Fuel Excise Duty vs. required transfer: GERMANY



[26] Address: http://www.destatis.de, Internal documents provided to us by Ms Carmen Busch, carmen.busch@destatis.de,

6.4 Excise Duty on Alcohol and Tobacco

Table 32 shows the level of revenues obtained by Germany since 2000 through excise duties on alcohol and tobacco.

Table 32 – Alcohol and Tobacco Excise Duties revenues: GERMANY

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	14,867	15,604	17,192	17,755	16,963	17,782
% annual change		5.0%	10.2%	3.3%	-4.5%	4.8%
Alcohol	3,479	3,515	3,424	3,667	3,208	3,369
Tobacco	11,388	12,089	13,768	14,088	13,755	14,413

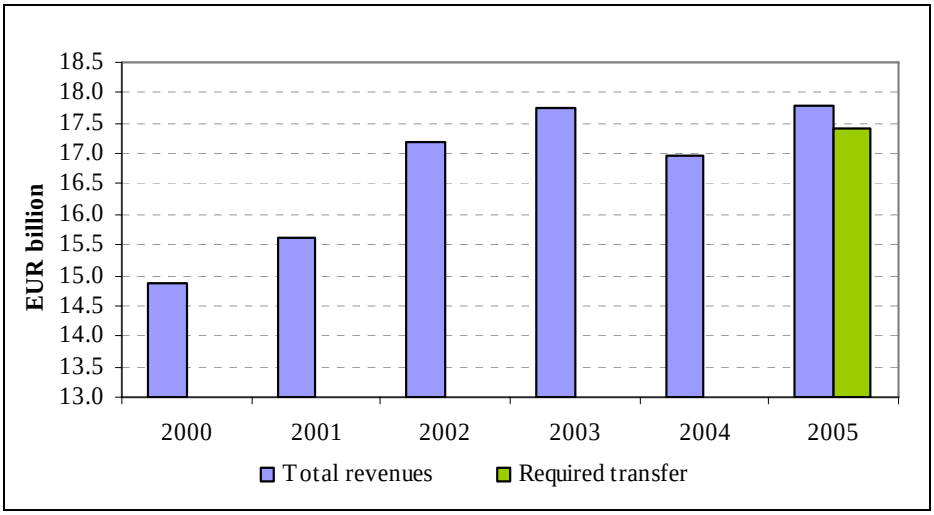
Source: Federal Statistical Office Germany *([27])*

Revenues from these taxes seemed to show a high level of variability, equal to about 3.8% per annum. Their correlation with GDP per capita, however, is high at about 82.7%.

Whilst alcohol revenues have remained relatively stable during this time period, tobacco revenues have increased in all years except 2004 when the tobacco tax rate was increased. The increased tax rate did not lead to increased revenues, instead it caused a fall in tobacco consumption ([28]).

The combined revenues obtained from these two types of excise duties are sufficient to match Germany's 2005 EU budget contributions, with almost the entirety (97.9%) of the revenues dedicated to the new tax, as shown in Figure 54.

Figure 54 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: GERMANY



[27] Address: http://www.destatis.de, Internal documents provided to us by Ms Carmen Busch, carmen.busch@destatis.de,

[28] European Commission, Directorate General Economic and Financial Affairs, *December 2004 Update of the Stability programme of Germany(2004-2008): An Assessment*, ECFIN/B1/2005/REP/50232-EN, Brussels, 2005

6.5 Tax on Corporate Profits

Table 33 shows the level of revenues obtained by Germany since 2000 through Corporate Profit tax.

Table 33 – Corporate Profit Tax revenues: GERMANY

Corporate Profit Tax (EUR million)	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**
Total revenues	25,970	1,790	4,800	10,170	15,260	18,850
% annual change		-93.1%	168.1%	111.9%	50.0%	23.5%

Source: Federal Statistical Office Germany *([29])*

Also in this case, revenues appear to show a very high level of variability, equal to about 52.1%. There seems to be no evidence of a correlation with GDP per capita with a correlation coefficient close to zero. It might be worth noting some of the probable causes of the revenue volatility, particularly the substantial 93.1% fall in revenues observed in 2001. However, removing this year from the calculation does not improve the correlation, with a resulting correlation of -23.9%.

According to the Bundesministerium der Finanzen the decline in corporate tax revenues in 2001 was mainly due to three causes, each one of them accounting for roughly a third of the decline.

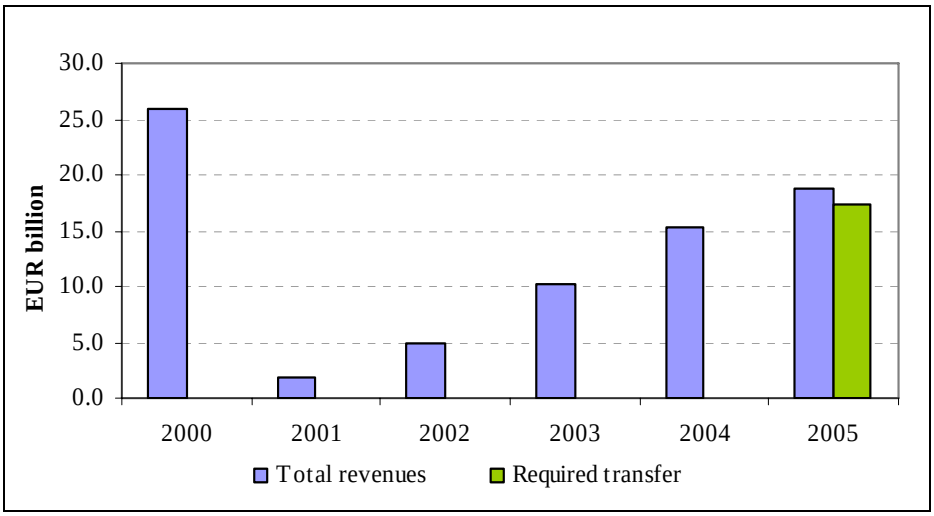
Firstly, it was due to the reduction of the corporate tax rate on retained profits and distributed profits from 40% and 30%, respectively, to an internationally competitive level of 25%. Secondly, it was due to the strong increase in distributions in 2001. This was mainly caused by the last opportunity for companies to have corporate tax refunded under the imputation system and led to corporate tax refunds of about €7bn. Finally, the third cause was a weaker German economy which in turn was caused by the slowing down of the world economy ([30]).

The revenues obtained from the corporate profit tax are sufficient to match Germany's 2005 EU budget contributions, however, almost the entirety (92.4%) of the revenues would have to be dedicated to the new tax,. This is shown in Figure 55.

[29] Address: http://www.destatis.de, Internal documents provided to us by Ms Carmen Busch, carmen.busch@destatis.de,

[30] Memo sent to Deloitte by Mr Peter Rennings at the *Bundesministerium der Finanzen*

Figure 55 – Total revenues from Corporate Profit Tax vs. required transfer: GERMANY



7 Estonia

7.1 Summary of results

Estonia's total GDP in 2005 was approximately EUR 11.1bn. According to the EU 2005 Budget the level of annual funding to be provided to the EU net of Traditional Resources and the UK rebate by Estonia was about EUR 84m (equivalent to about 0.8% of its GDP).

Table 34 shows GDP (both in absolute terms and per capita) and Consumer Expenditure for Estonia since 2000.

Table 34 – GDP and Consumer Expenditure: ESTONIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	6,103	6,916	7,757	8,494	9,375	11,061
GDP per capita (EUR)	4,448	5,060	5,699	6,264	6,939	8,208
Consumer Expenditure per capita (EUR)	3,300	3,800	4,300	4,700	5,100	5,700

Source: Eurostat ([31])

During this period the average growth of total GDP was about 12.7% per annum. GDP per capita grew by about 13.1% per annum during this period. Consumer Expenditure grew on average at about 11.6% per annum.

This reflects the strong performance of the Estonian economy in the last five years. It has been rapidly catching up with the EU average, showing the highest speed of convergence among the EU's new member states.([32])

Table 35 summarises the results of our assessment of the candidate taxes for Estonia. A detailed analysis of each tax is presented in the remainder of this section.

Table 35 – Summary of the assessment of candidate taxes: ESTONIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU-27 average
VAT	13.3%	98.3%	8.8%	-1.6%
Duty on motor fuel	25.3%	99.0%	39.1%	-13.8%
Duties on alcohol and tobacco	15.8%	98.3%	41.3%	-27.6%
Corporate Profit tax	28.7%	91.0%	52.5%	20.4%

Source: Deloitte calculation

The average annual change in VAT revenues appears to be rapidly increasing. It also appears to be highly correlated with Estonia's GDP. The share of revenues needed to match the country's 2005 EU contribution is about 8.8% of total VAT revenues.

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[31] Information on *GDP*, *Consumer Expenditure* and *Population*, Eurostat, *ibid.*

[32] "*Estonia's commitment to free markets and prudent financial policies has paid off handsomely. Far-reaching structural reforms have created a well-functioning market economy, closely integrated with the Baltic and EU regions. A solid currency board arrangement (CBA) and prudent fiscal policy have brought price stability and low public debt. These policies have borne fruit with impressive productivity growth and a corresponding rise in real per capita income—the strongest convergence among the EU's new member states.*", IMF, *Public Information Notice (PIN) No. 06/134*, available at: http://www.imf.org/external/np/sec/pn/2006/pn06134.htm

The revenues from the excise duty on motor fuel show substantial variability on a year-to-year basis and they appear to be almost entirely correlated with GDP. In order to fund the 2005 EU contribution through the revenues from excise duties on motor fuel, 39.1% of this revenue would be required.

The revenues for excise duties on alcohol and tobacco products also appear to vary quite significantly during this period and are also highly correlated with GDP. The required share of revenues would in this case equal 41.3% of total revenues raised.

Estonia's corporate profit tax revenues have also increased rapidly, with an average annual change of almost 29%. Additionally, the corporate profit tax seems to be highly correlated with Estonia's GDP. The share needed to fund the 2005 EU contribution is 52.5%.

The share of corporate profit tax revenues required is 20.4 percentage points higher than the average required share across the EU 27 countries. Conversely, the shares of VAT, duties on motor fuel and duties on alcohol and tobacco revenues are all lower than the EU 27 average. More precisely, they are respectively 1.6, 13.8 and 27.6 percentage points lower than the average.

7.2 VAT

Table 36 shows the level of VAT revenues obtained by Estonia since 2000. The table does not contain a breakdown of VAT by origin as this information was not available in a consistent data series.

Table 36 – VAT Revenues: ESTONIA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	520.1	555.3	649.9	711.9	731.0	954.8
% annual change		6.8%	17.0%	9.5%	2.7%	30.6%

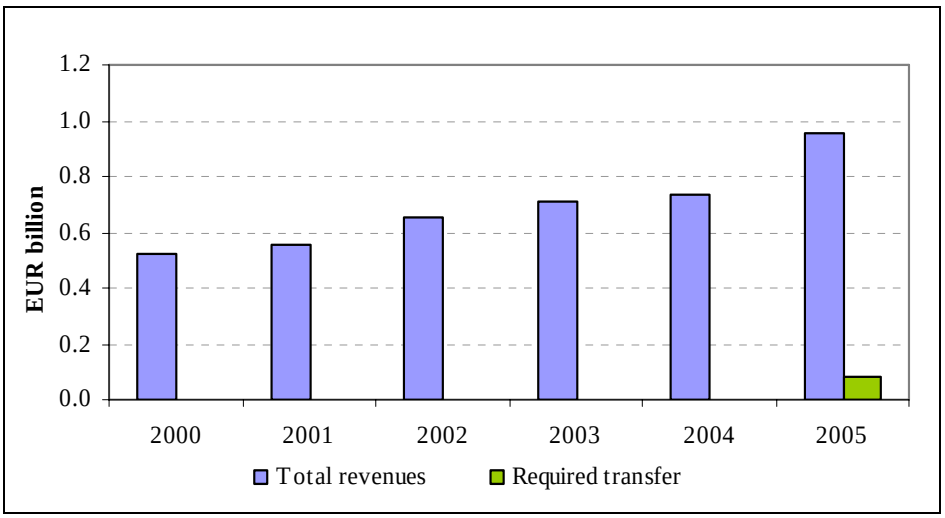
Source: Statistical Office of Estonia ([33])

During the time period, the average annual change in VAT revenues was 13.3%. It can be seen that revenues increased since 2000, with a particularly large increment of almost 31% in 2005.

In order to raise a level of revenues equal to Estonia's 2005 EU contribution, about 8.8% of the total revenues would have to be dedicated to the new EU tax. This is shown in Figure 56.

Assuming all VAT revenues are raised at the standard rate of 18% the required rate for the new EU tax would need to be about 1.6%, while the modified MS VAT rate would be 16.4%.

Figure 56 – Total VAT revenues vs. required transfer: ESTONIA



[33] Estonian Statistical Office: www.stat.see, information provided to us by Ms Stella Suurorg, Stella.Suurorg@fin.ee
Part of this information can be found at Eurostat: *Main National Accounts Tax Aggregates*, available at: http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/gov/taxes&language=en&product=EU_MASTER_government&root=EU_MASTER_government&scrollto=0

7.3 Excise Duty on Motor Fuel

Table 37 shows the level of revenues obtained by Estonia between 2000 and 2005 through excise duty on motor fuel.

Table 37 – Motor Fuel Excise Duty revenues: ESTONIA

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	71.9	109.1	116.4	132.4	168.4	214.1
% annual change		51.6%	6.7%	13.8%	27.1%	27.1%

Source: Statistical Office of Estonia ([34])

The average annual change in motor fuel excise duty revenues was about 25.3% per annum. This appears to be due to the major increases observed; in particular, in 2001 (51%), as well as in 2004 and 2005 (27%).

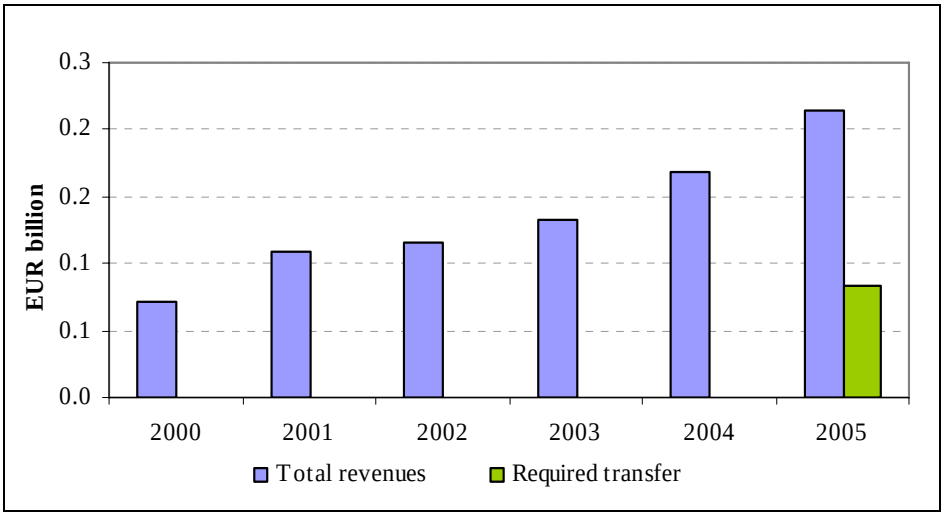
Revenues seem to be almost entirely correlated with the country's GDP with a correlation factor of about 99%.

In order to fund the country's 2005 EU budget contribution of EUR 84 million, about 39.1% of total motor fuel excise duty revenues would have to be dedicated to the new tax.

As the average excise duty is approximately EUR 355 per 1000 litres (calculated as the average of leaded and unleaded petrol duty, and diesel fuel), then in order to finance the budget contribution about EUR 139 per 1000 litres would need to be transferred to the EU.

Figure 57 shows the variation of motor fuel excise revenues compared with the transfer required to match Estonia's contribution to the EU budget.

Figure 57 – Total revenues from Motor Fuel Excise vs. required transfer: ESTONIA



[34] Estonian Statistical Office: www.stat.ee, information provided to us by Ms Stella Suurorg, Stella.Suurorg@fin.ee
Part of this information can be found at Eurostat: *Main National Accounts Tax Aggregates*, available at: http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/gov/taxes&language=en&product=EU_MASTER_government&root=EU_MASTER_government&scrollto=0

7.4 Excise Duty on Alcohol and Tobacco

Table 38 shows the level of revenues obtained by Estonia since 2000 through excise duties on alcohol and tobacco.

Table 38 – Alcohol and Tobacco Excise Duties revenues: ESTONIA

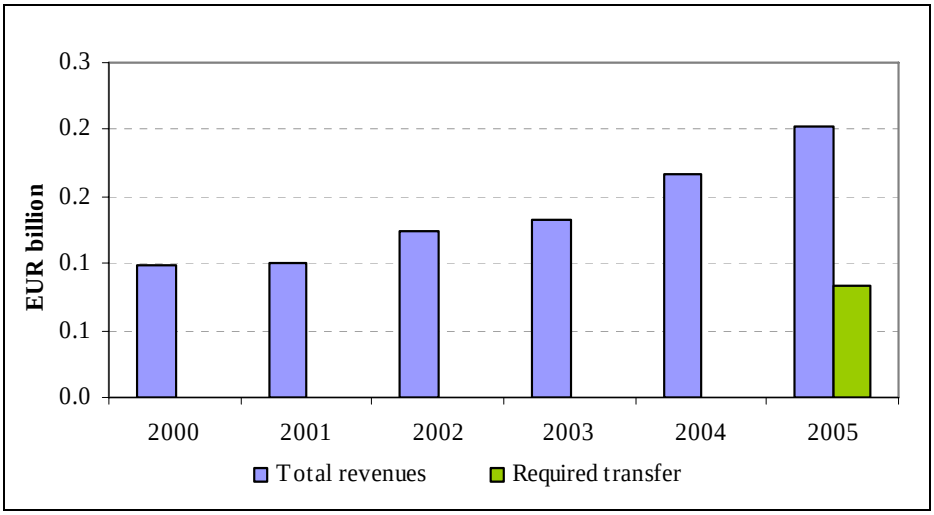
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	99.3	100.2	124.0	132.9	166.7	202.7
% annual change		0.9%	23.8%	7.2%	25.4%	21.7%
Alcohol	64.7	64.1	77.8	82.7	108.0	123.8
Tobacco	34.6	36.1	46.2	50.2	58.6	78.9

Source: Statistical Office of Estonia ([35])

Alcohol and tobacco excise duty revenues increased steadily during the time period between 2000 and 2005. Major increases of over 20% per annum have been observed in several years, with both alcohol and tobacco revenues separately increasing steadily in the time period. The revenues from these taxes are highly correlated with GDP, with a correlation estimate of about 98.3%.

Adding up the total revenues from both alcohol and tobacco gives an amount that is sufficient to finance Estonia's EU contribution. The share needed to finance the 2005 contribution is 41.3% of total revenues. This is shown in Figure 58.

Figure 58 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: ESTONIA



[35] Estonian Statistical Office: www.stat.ee, information provided to us by Ms Stella Suurorg, Stella.Suurorg@fin.ee
Part of this information can be found at Eurostat: *Main National Accounts Tax Aggregates*, available at: http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/gov/taxes&language=en&product=EU_MASTER_government&root=EU_MASTER_government&scrollto=0

7.5 Tax on Corporate Profits

Table 39 shows the level of revenues obtained by Estonia since 2000 through corporate profit tax.

Table 39 – Corporate Profit Tax revenues: ESTONIA

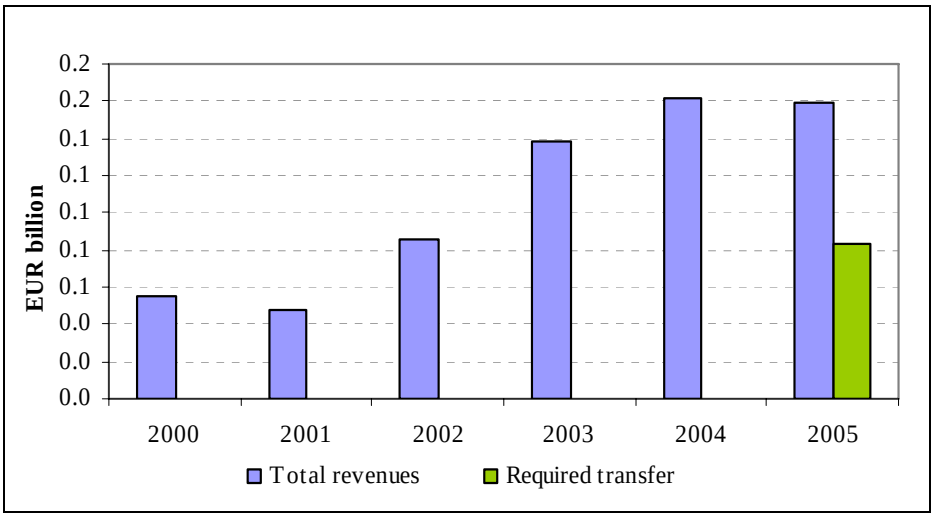
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	54.6	47.8	86.1	137.8	161.2	159.5
% annual change		-12.4%	80.1%	60.0%	17.0%	-1.0%

Source: Statistical Office of Estonia ([36])

The average annual rate of change of corporate profit tax revenues was 28.7%. This number incorporates some major increases, such as in 2002 and 2003, however, it also incorporates a fall of -1.0% in revenues in 2005. The same year the corporate profit tax rate was lowered from 26% to 24% ([37]).

Despite its volatility, the corporate profit tax in Estonia shows a high correlation with GDP of about 91.0%. In order to finance Estonia's EU contribution, a share of 52.5% of corporate profit tax revenues would be needed to match the transfer. This is shown in Figure 59.

Figure 59 – Total revenues from Corporate Profit Tax vs. required transfer: ESTONIA



[36] Estonian Statistical Office: www.stat.ee, information provided to us by Ms Stella Suurorg, Stella.Suurorg@fin.ee
Part of this information can be found at Eurostat: *Main National Accounts Tax Aggregates*, available at: http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/gov/taxes&language=en&product=EU_MASTER_government&root=EU_MASTER_government&scrollto=0

[37] Bank of Estonia, Eesti Pank, *Estonian Economy in 2005*, http://www.eestipank.info/pub/en/dokumendid/publikatsioonid/seeriad/aastaaruanne/_2005/_17.pdf

8 Greece

8.1 Summary of results

Greece's total GDP in 2005 was approximately EUR 181bn. According to the EU 2005 Budget, the level of annual funding to be provided by Greece to the EU net of Traditional Resources and the UK rebate was about EUR 1,602m (equivalent to about 0.9% of its GDP).

Table 40 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Greece since 2000.

Table 40 – GDP and Consumer Expenditure: GREECE

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	125,892	133,105	143,482	155,543	168,417	181,088
GDP per capita (EUR)	11,546	12,177	13,081	14,132	15,254	16,340
Consumer Expenditure per capita (EUR)	10,100	10,500	11,200	11,900	12,700	13,600

Source: Eurostat

On average, total GDP grew by about 7.5% per annum. GDP per capita grew by about 7.2% per annum. Consumption expenditure grew at approximately 6.1% on average per annum.

Table 41 summarises the results of our assessment of the candidate taxes for Greece. A detailed analysis of each tax is presented in the remainder of this section.

Table 41 – Summary of the assessment of candidate taxes: GREECE

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU-27 average
VAT	6.5%	95.2%	12.0%	-1.6%
Duty on motor fuel	2.3%	89.3%	66.6%	13.7%
Duties on alcohol and tobacco	5.7%	93.2%	62,2%	-6.7%
Corporate profit tax	3.2%	60.4%	24.9%	-7.2%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing during the period under analysis. VAT revenues show the highest rate of growth at 6.5%, while the revenues from the excise duty on motor fuel have only grown at 2.3% per annum on average.

The growth of revenues from VAT, excise duty on motor fuel and excise duties on alcohol and tobacco appear to be highly correlated to the growth of GDP per capita. The revenues from corporate profit tax, however, have been fluctuating for most of the period under analysis, showing high growth rates only in 2004 and 2005. The correlation with GDP is therefore not very high, with a correlation factor of about 60.4%. All taxes provide sufficient revenues to match Greece's contribution to the EU budget, although, for the excise duties, the revenues required would amount to about three quarters of total revenues.

The share of duty on motor fuel revenues required is 13.7 percentage points higher than the average share across the EU 27 countries. The shares of VAT, duties on alcohol and tobacco revenues and corporate profit tax revenues required are respectively 1.6, 6.7 and 7.2 percentage points lower than the EU 27 average.

8.2 VAT

Table 42 shows the level of VAT revenues obtained by Greece since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 42 – VAT Revenues: GREECE

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	9,824	10,960	11,969	12,042	12,573	13,398
% annual change		11.6%	9.2%	0.6%	4.4%	6.6%
VAT on domestic exchanges	8,500	9,638	10,622	10,557	10,856	11,627
VAT on imports	1,324	1,322	1,347	1,485	1,717	1,771

Source: Greek National Statistical Office ([38])

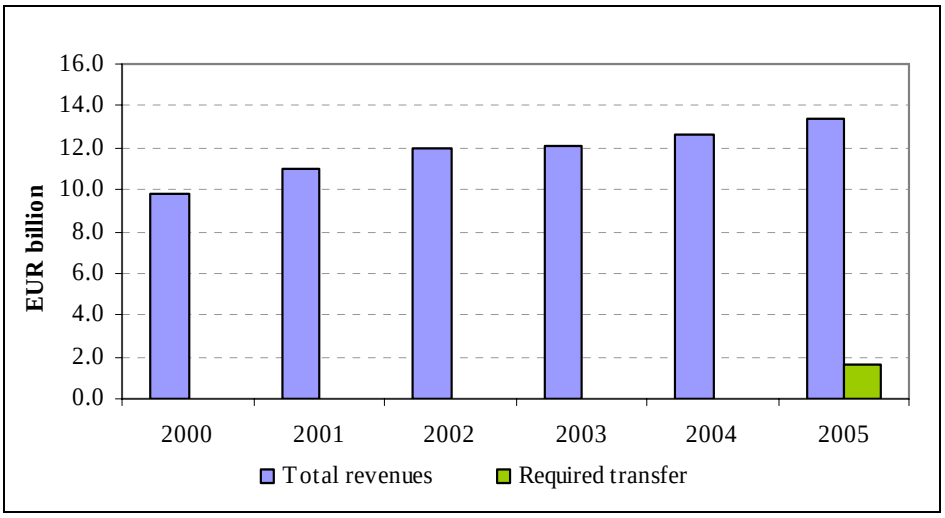
The average annual change in VAT revenues was 6.5%. Revenues grew at a high rate during the first part of the period under analysis. After one year in which they were almost constant (2003, with a growth rate equal to about 0.6%), they have started growing again, albeit at a lower rate. VAT revenues are highly correlated with movements in GDP per capita. The estimated correlation is equal to about 95.2%.

In order to raise a level of revenues equal to Greece's 2005 EU Budget contribution, about 12.0% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic tax is considered, then 13.8% of these revenues would need to be transferred to the EU.

Assuming all VAT revenues are raised at the standard rate of 19%, the required rate for the new EU tax would be approximately 2.3%, while the modified MS VAT rate would be 16.7%.

Figure 60 shows the variation in VAT revenues compared with the transfer required to match Greece's contribution to the EU Budget.

Figure 60 – Total VAT revenues vs. required transfer: GREECE



[38] Greek National Statistical Office, General Secretariat, Data Dissemination department (data.dissem@statistics.gr)

8.3 Excise Duty on Motor Fuel

Table 43 shows the level of revenues obtained by Greece since 2000 through an excise duty on motor fuel.

Table 43 – Motor Fuel Excise Duty revenues: GREECE

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,151	2,261	2,166	2,280	2,343	2,407
% annual change		5.1%	-4.2%	5.3%	2.8%	2.7%

Source: Greek National Statistical Office ([39])

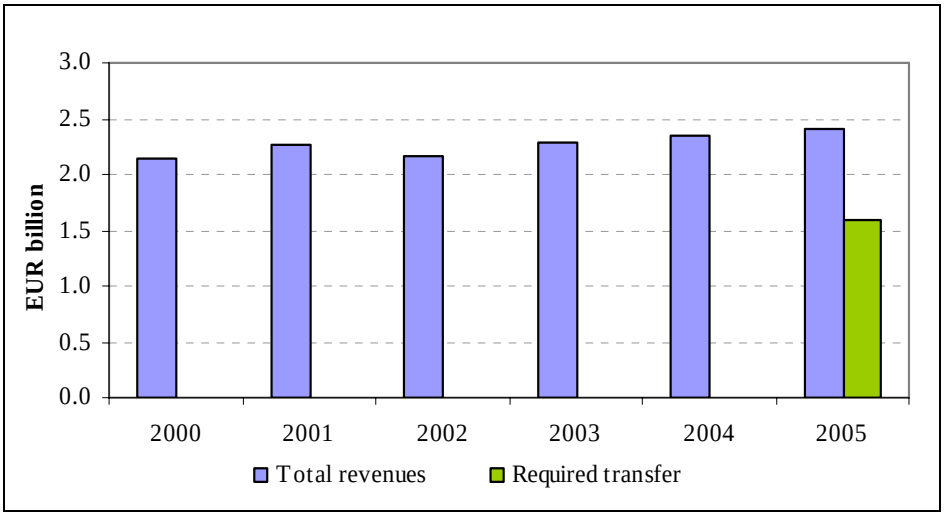
The average annual change in revenues from motor fuels excise duties was 2.3%. However, this average masks a fluctuating pattern for the first years of the period under analysis, where high growth rates above 5.0% were interrupted by a decline in 2002 of about 4.2%. This decline notwithstanding, overall revenues appear to be correlated with GDP per capita, with an estimated correlation factor of about 89.3%.

In order to raise a level of revenues equal to Greece's 2005 EU budget contribution, about 66.6% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 336 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 223 per 1000 litres would need to be transferred to the EU.

Figure 61 shows the variation of total fuel excise revenues compared with the transfer required to match Greece's contribution to the EU budget.

Figure 61 – Total revenues from Motor Fuel Excise Duty vs. required transfer: GREECE



[39] Greek National Statistical Office, *ibid.*

8.4 Excise Duty on Alcohol and Tobacco

Table 44 shows the level of revenues obtained by Greece since 2000 through excise duties on alcohol and tobacco.

Table 44 – Alcohol and Tobacco Excise Duties revenues: GREECE

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,955	2,210	2,329	2,449	2,482	2,574
% annual change		13.0%	5.4%	5.2%	1.3%	3.7%
Alcohol	191	209	214	222	225	258
Tobacco	1,764	2,001	2,115	2,227	2,257	2,316

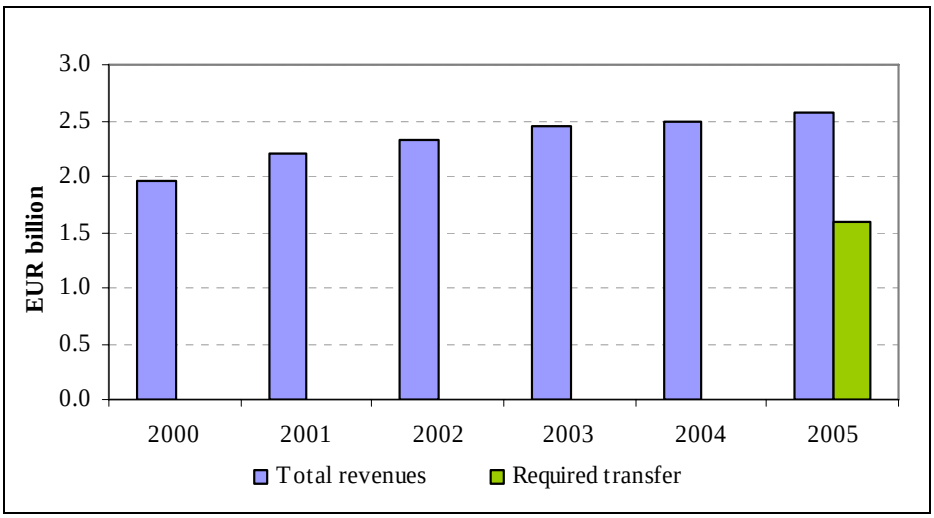
Source: Greek National Statistical Office ([40])

Revenues from these taxes grew throughout the period under analysis. The high annual growth rates of the earlier years were replaced by lower growth rates in 2004 and 2005. Overall, the average annual growth rate was about 5.7%. These revenues appear to be highly correlated with movements in GDP per capita, with an estimated correlation coefficient of about 93.2%.

In order to raise a level of revenues equal to Greece's 2005 EU budget contribution, about 62.2% of total revenues would need to be dedicated to the new EU tax.

Figure 62 shows the variation of total alcohol and tobacco excise revenues compared with the transfer required to match Greece's contribution to the EU budget.

Figure 62 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: GREECE



[40] Greek National Statistical Office, *ibid.*

8.5 Tax on Corporate Profits

Table 45 shows the level of revenues obtained by Greece since 2000 through corporate profit tax.

Table 45 – Corporate Profit Tax revenues: GREECE

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	5,642	4,931	5,296	5,016	5,556	6,429
% annual change		-12.6%	7.4%	-5.3%	10.8%	15.7%

Source: Greek National Statistical Office ([41])

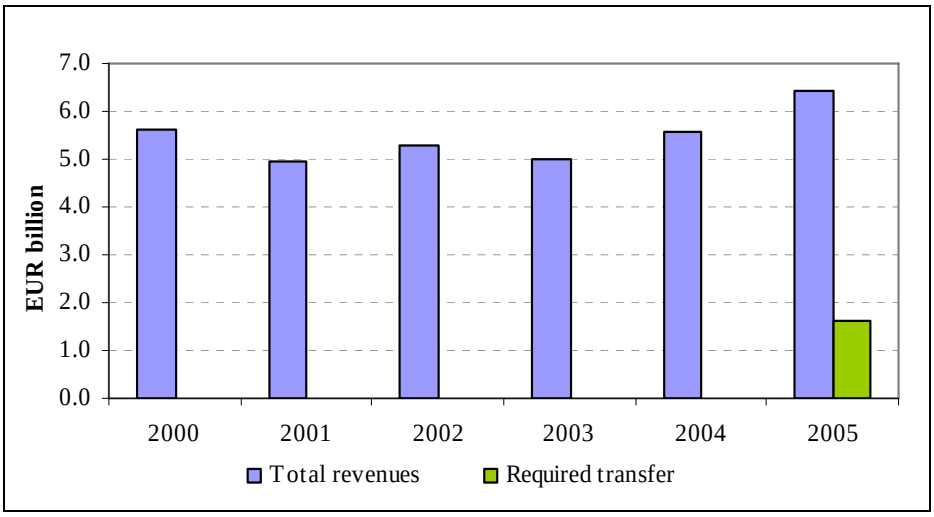
The revenues from the corporate profit tax displayed a high volatility during the period of analysis, showing an alternate pattern of sharp reductions and large increases. Revenues increased consistently in the last two years of the analysis period (about 10.8% in 2004 and 15.7% in 2005). The average annual growth rate was about 3.2%.

The correlation with GDP per capita is therefore lower, with an estimated correlation coefficient of about 60.4%.

In order to finance Greece's EU contribution, a share of about 24.9% of corporate profit tax revenues would be needed to match the transfer.

Figure 63 shows the variation of corporate profit tax revenues compared with the transfer required to match Greece's contribution to the EU budget.

Figure 63 – Total revenues from Corporate Profit Tax vs. required transfer: GREECE



[41] Greek National Statistical Office, *ibid.*

9 Spain

9.1 Summary of results

Spain's total GDP in 2005 was approximately EUR 905bn. According to the EU 2005 Budget, the level of annual funding to be provided by Spain to the EU net of Traditional Resources and the UK rebate was about EUR 8,377m (equivalent to about 0.9% of its GDP).

Table 46 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Spain since 2000.

Table 46 – GDP and Consumer Expenditure: SPAIN

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	630,263	680,678	729,206	782,531	840,106	905,455
GDP per capita (EUR)	15,737	16,817	17,801	18,782	19,839	21,039
Consumer Expenditure per capita (EUR)	1,2000	12,700	13,300	14,000	14,900	15,800

Source: Eurostat

On average, total GDP grew by about 7.5% per annum. GDP per capita grew by about 6.0% per annum. Consumption expenditure grew at approximately 5.7% on average per annum.

Table 47 summarises the results of our assessment of the candidate taxes for Spain. A detailed analysis of each tax is presented in the remainder of this section.

Table 47 – Summary of the assessment of candidate taxes: SPAIN

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	9.1%	99.4%	11.8%	1.4%
Duty on motor fuel	2.5%	98.8%	81.8%	28.9%
Duties on alcohol and tobacco	6.8%	99.0%	not sufficient	
Corporate profit tax	16.0%	99.0%	23.3%	-8.8%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing during the period under analysis. Corporate profit tax revenues show the highest rate of growth, while the revenues from the excise duty on motor fuel have only grown at 2.5% per annum on average.

All revenue streams appear to be highly correlated with the country's GDP per capita, which was also growing at a fast pace.

Only the excise duties on alcohol and tobacco do not provide, on their own, revenues sufficient to match Spain's recent contribution to the EU budget, while almost all revenues from the duty on motor fuel would be required to match the 2005 transfer.

The share of VAT revenues required is almost in line with the average required share across the EU 27 countries (1.2 percentage points higher). The share of revenues from duty on motor fuel is on the contrary 28.9 percentage points higher than the EU 27 average, while the share of corporate profit tax revenues required is 8.8 percentage points lower than the European average.

9.2 VAT

Table 48 shows the level of VAT revenues obtained by Spain since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 48 – VAT Revenues: SPAIN

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	45,889	49,374	52,885	59,082	64,104	70,815
% annual change		7.6%	7.1%	11.7%	8.5%	10.5%
VAT on domestic exchanges	35,608	38,678	42,158	47,479	51,431	61,102
VAT on imports	10,282	10,696	10,727	11,603	12,673	9,713

Source: Agencia Estatal de la Administracion Tributaria ([42])

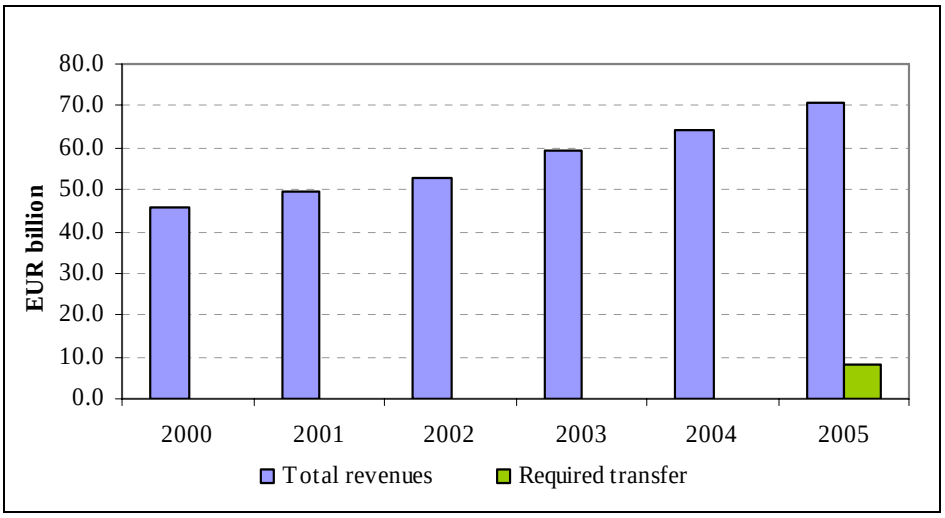
The average annual change in VAT revenues was 9.1%. Revenues from domestic VAT on average accounted for about 80% of total VAT revenues. Revenues from VAT grew over time and are also highly correlated with movements in GDP per capita. The estimated correlation is equal to about 99.4%.

In order to raise a level of revenues equal to Spain's 2005 EU Budget contribution, about 11.8% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were to be considered, then about 13.7% of these revenues would need to be transferred to the EU. This is shown in Figure 64.

Assuming that all VAT revenues are raised at the standard rate of 16%, the required rate for the new EU tax would be approximately 1.9%, while the modified MS VAT rate would be 14.1%.

Figure 64 shows the variation of VAT revenues compared with the transfer required to match Spain's contribution to the EU Budget.

Figure 64 – Total VAT revenues vs. required transfer: SPAIN



[42] Informe Anual De Recaudacion Tributaria (2004 and 2005). Agencia Estatal de la Administracion Tributaria (www.aeat.es)

9.3 Excise Duty on Motor Fuel

Table 49 shows the level of revenues obtained by Spain since 2000 through an excise duty on motor fuel.

Table 49 – Motor Fuel Excise Duty revenues: SPAIN

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	9,077	9,277	9,527	9,830	10,171	10,246
% annual change		2.2%	2.7%	3.2%	3.5%	0.7%

Source: Agencia Estatal de la Administracion Tributaria ([43])

The average annual change in revenues from motor fuel excise duties was 2.5%. The growth rate increased until 2004 but then declined to 0.7% for the last year of the observation period.

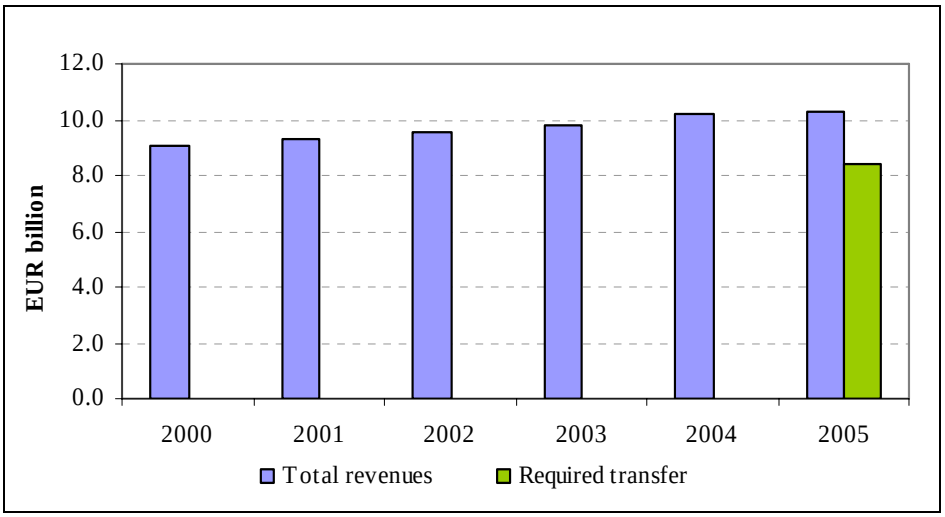
Revenues therefore grew constantly over time and appear to be closely correlated with movements in GDP per capita, with a correlation factor of about 98.8%.

In order to raise a level of revenues equal to Spain's 2005 EU Budget contribution, almost the entirety (81.8%) of total Motor Fuel Excise Duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 417 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 341 per 1000 litres would need to be transferred to the EU.

Figure 65 shows the variation of total fuel excise revenues compared with the transfer required to match Spain's contribution to the EU Budget.

Figure 65 – Total revenues from Motor Fuel Excise Duty vs. required transfer: SPAIN



[43] AEAT, *ibid.*

9.4 Excise Duty on Alcohol and Tobacco

Table 50 shows the level of revenues obtained by Spain since 2000 through excise duties on alcohol and tobacco.

Table 50 – Alcohol and Tobacco Excise Duties revenues: SPAIN

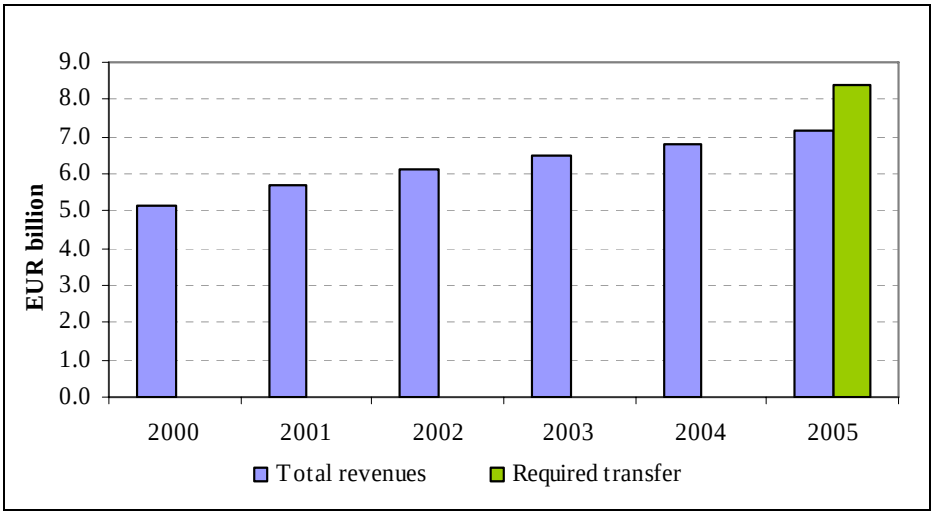
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	5,133	5,691	6,140	6,499	6,768	7,135
% annual change		10.9%	7.9%	5.8%	4.1%	5.4%
Alcohol	947	1,093	1,100	1,121	1,159	1,232
Tobacco	4,186	4,598	5,040	5,379	5,609	5,903

Source: Agencia Estatal de la Administracion Tributaria ([44])

Revenues from these taxes showed fairly high annual growth rates, with the highest value (10.9%) recorded in 2001. The average annual growth rate was about 6.8%. The correlation of revenues with GDP per capita is also high, with a coefficient of about 99.0%.

The combined revenues obtained from these two types of excise duties are not sufficient to match Spain's 2005 EU budget contribution, as shown in Figure 66.

Figure 66 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: SPAIN



[44] AEAT, *ibid.*

9.5 Tax on Corporate Profits

Table 51 shows the level of revenues obtained by Spain since 2000 through corporate profit tax.

Table 51 – Corporate Profit Tax revenues: SPAIN

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	17,207	20,515	23,876	25,784	29,711	35,979
% annual change		19.2%	16.4%	8.0%	15.2%	21.1%

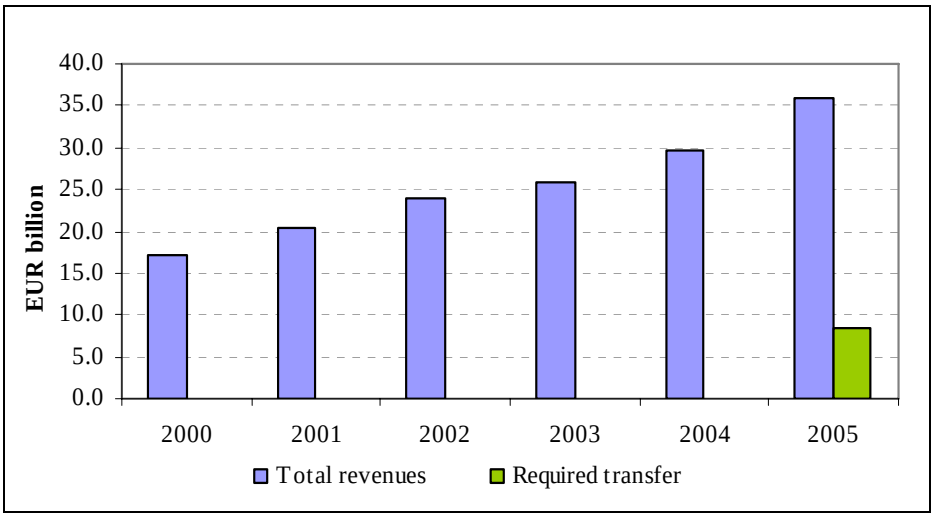
Source: Agencia Estatal de la Administracion Tributaria ([45])

Revenues from corporate profit tax showed high annual growth rates, with a peak observed at the end of the period under analysis (21.1%). The average annual growth rate was about 16.0%. Revenues from this tax grew in step with GDP per capita: this is shown by the high level of correlation, equal to about 99.0%.

In order to raise a level of revenues equal to Spain's 2005 EU Budget contribution, about 23.3% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 67 shows the variation of corporate profit tax revenues compared with the transfer required to match Spain's contribution to the EU budget.

Figure 67 – Total revenues from Corporate Profit Tax vs. required transfer: SPAIN



[45] AEAT, *ibid.*

10 France

10.1 Summary of results

France's total GDP in 2005 was approximately EUR 1,710bn. According to the EU 2005 Budget, the level of annual funding to be provided by France to the EU net of Traditional Resources and the UK rebate was about EUR 15,517m (equivalent to about 0.9% of its GDP).

Table 52 shows GDP (both in absolute and per capita terms) and consumer expenditure for France since 2000.

Table 52 – GDP and Consumer Expenditure: FRANCE

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	1,441,371	1,497,174	1,548,555	1,594,814	1,659,020	1,710,024
GDP per capita (EUR)	23,832	24,603	25,288	25,883	26,765	27,352
Consumer Expenditure per capita (EUR)	18,700	19,300	20,000	20,600	21,400	22,000

Source: Eurostat

On average, total GDP has grown by about 3.5% per annum. GDP per capita has grown by about 2.8% per annum. Consumption expenditure grew at approximately 3.3% on average per annum.

Table 53 summarises the results of our assessment of the candidate taxes for France. A detailed analysis of each tax is presented in the remainder of this section.

Table 53 – Summary of the assessment of candidate taxes: FRANCE

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	3.5%	95.8%	12.3%	1.9%
Duty on motor fuel	0.1%	51.6%	62.5%	9.6%
Duties on alcohol and tobacco	2.9%	91.8%	not sufficient	
Corporate profit tax	1.1%	-25.6%	39.3%	7.1%

Source: Deloitte calculation

The revenues from all taxes, with the exception of those from motor fuel excise duty, have been growing during the period under analysis. Revenues from VAT and from excise duties on alcohol and tobacco show higher rates of growth and appear to be highly correlated with the country's GDP per capita.

Revenues from corporate profit tax appear to be negatively correlated with GDP per capita with an estimated correlation coefficient of about -25.6%.

With exception of the excise duties on alcohol and tobacco, all candidate taxes appear to raise a level of revenues sufficient to match France's recent contribution to the EU budget.

The share of VAT revenues required is 1.9 percentage points higher than the average required share of VAT revenues across the EU 27 countries. The share of revenues from excise duties on motor fuel required to match France's recent EU budget contribution is 9.6 percentage points higher than the EU 27 average, while the required share of corporate profit tax revenues is 7.1 percentage points higher than the average.

10.2 VAT

Table 54 shows the level of VAT revenues obtained by France since 2000. INSEE, the National Statistical Office of France, the source of the information used for this analysis, was unable to provide us with the data on the breakdown of VAT revenues into its components.

Table 54 – VAT Revenues: FRANCE

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	105,887	107,465	109,353	112,460	119,292	125,785
% annual change		1.5%	1.8%	2.8%	6.1%	5.4%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: INSEE ([46])

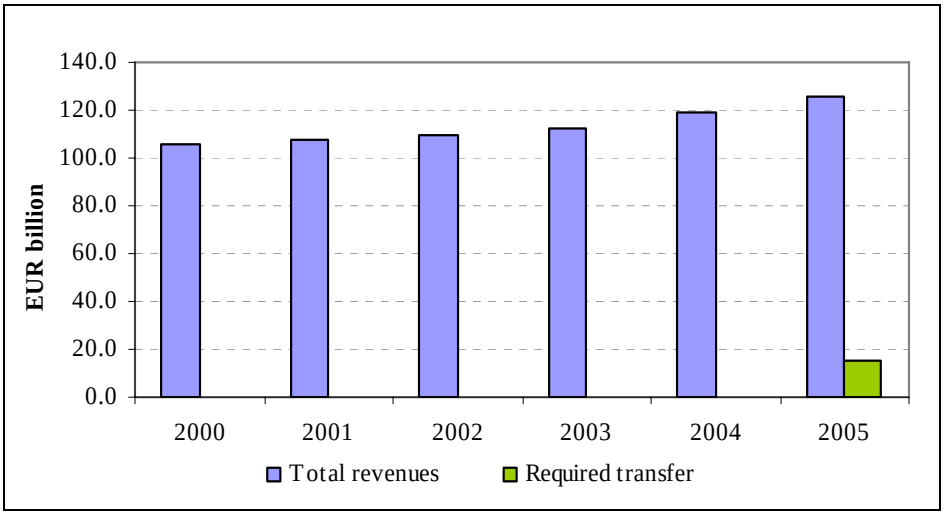
The average annual change in VAT revenues was 3.5%. Revenues from VAT were growing over time and were also highly correlated with movements in GDP per capita. The estimated correlation is about 95.8%.

In order to raise a level of revenues equal to France's 2005 EU Budget contribution, about 12.3% of total VAT revenues would need to be dedicated to the new EU tax.

Assuming all VAT revenues are raised at the standard rate of 19.6%, the rate needed for the EU tax would be about 2.4%. This would yield a modified MS VAT rate of 17.2%.

Figure 68 shows the variation of VAT revenues compared with the transfer required to match France's 2005 contribution to the EU Budget.

Figure 68 – Total VAT revenues vs. required transfer: FRANCE



[46] Institut National de la Statistique et des Études Économiques, www.insee.fr

10.3 Excise Duty on Motor Fuel

Table 55 shows the level of revenues obtained by France since 2000 through an excise duty on motor fuel.

Table 55 – Motor Fuel Excise Duty revenues: FRANCE

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	24,763	23,536	24,374	24,534	25,277	24,809
% annual change		-5.0%	3.6%	0.7%	3.0%	-1.9

Source: INSEE ([47])

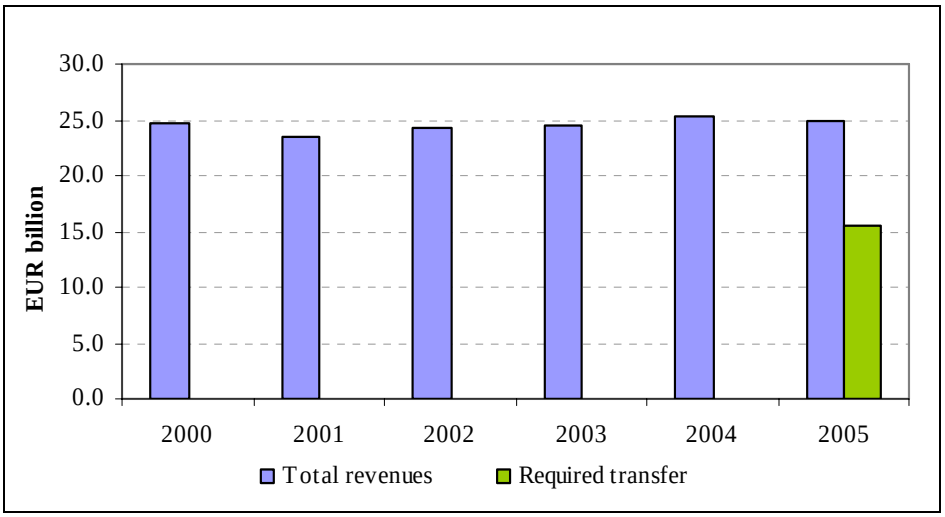
The average annual change in revenues from motor fuel excise was 0.1%. This was due to a fluctuating trend, alternating positive and negative growth rates. Because of this, revenues do not appear to be very correlated to GDP per capita. The estimated correlation coefficient is equal to about 51.6%.

In order to raise a level of revenues equal to France's 2005 EU Budget contribution, about 62.5% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 623 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 390 per 1000 litres would need to be transferred to the EU.

Figure 69 shows the variation of total fuel excise revenues compared with the transfer required to match France's contribution to the EU Budget.

Figure 69 – Total revenues from Motor Fuel Excise Duty vs. required transfer: FRANCE



[47] INSEE, *ibid.*

10.4 Excise Duty on Alcohol and Tobacco

Table 56 shows the level of revenues obtained by France since 2000 through excise duties on alcohol and tobacco.

Table 56 – Alcohol and Tobacco Excise Duties revenues: FRANCE

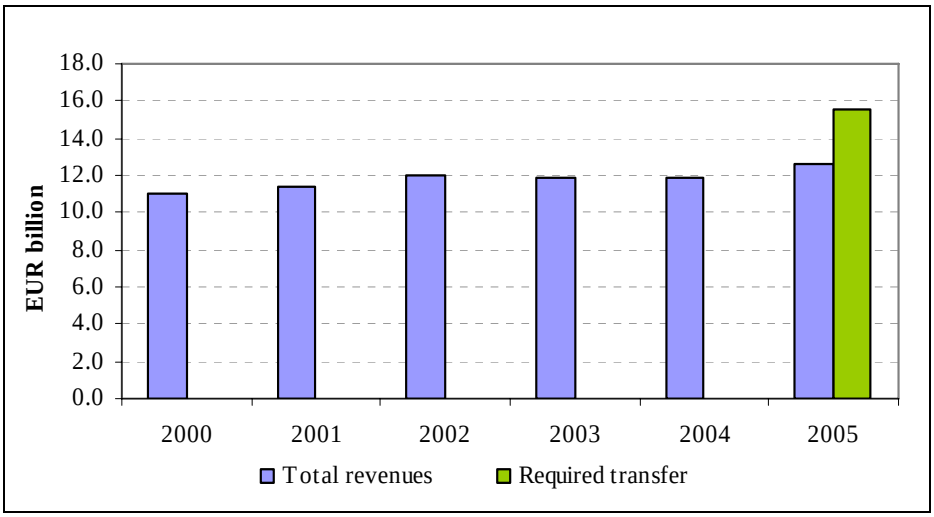
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	10,972	11,444	11,974	11,935	11,913	12,623
% annual change		4.3%	4.6%	-0.3%	-0.2%	6.0%
Alcohol	2,983	3,133	3,159	3,031	2,789	2,795
Tobacco	7,989	8,311	8,815	8,904	9,124	9,828

Source: INSEE ([48])

Revenues from these taxes grew during the period under analysis by about 2.9% per annum. However, revenues were almost constant in 2003 and 2004 and started increasing again only in 2005. This was due to a decline in revenues from the duty on alcohol products, which was offset by the increase in revenues from the duty on tobacco towards the end of the analysis period.

The correlation of revenues with GDP per capita is high, with an estimated correlation coefficient of about 91.8%. However, the combined revenues from these taxes do not appear to be sufficient to match France's recent contribution to the EU budget, as shown in Figure 70

Figure 70 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: FRANCE



[48] INSEE, *ibid.*

10.5 Tax on Corporate Profits

Table 57 shows the level of revenues obtained by France since 2000 through Corporate Profit tax.

Table 57 – Corporate Profit Tax revenues: FRANCE

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	38,907	43,782	37,787	32,538	38,168	39,483
% annual change		12.5%	-13.7%	-13.9%	17.3%	3.4%

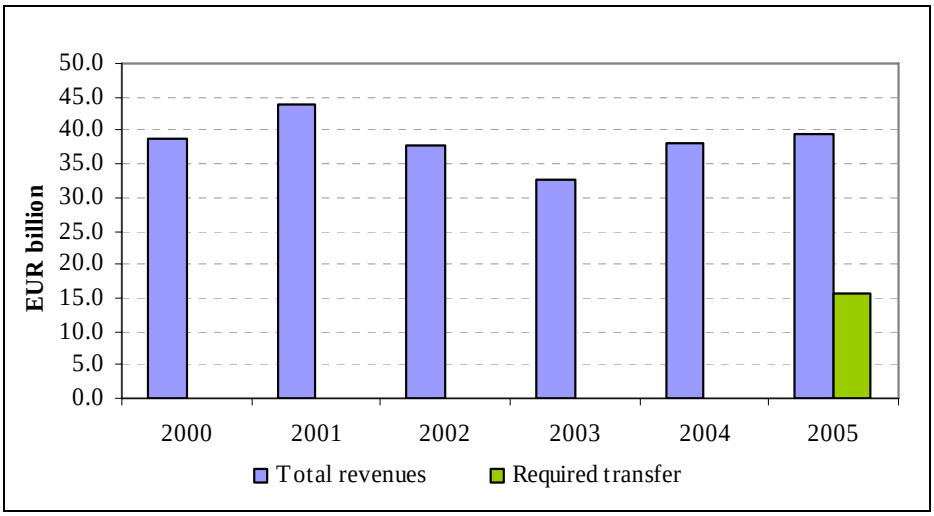
Source: INSEE ([49])

Revenues from corporate profit tax appear to fluctuate somewhat during the time period under analysis. In 2001, revenues grew at 12.5%; however, in the two following years revenues fell quite sharply. This was due to a general economic slowdown, which translated into the postponement of investment plans, leading to lower company profits ([50]). In 2004, growth was again positive and remained so in the last observation period. The average annual growth rate was about 1.1%.

Due to the substantial falls in revenues during this period, the correlation with GDP per capita is negative with an estimated correlation coefficient equal to about -25.6%.

In order to raise a level of revenues equal to France's 2005 EU Budget contribution, about 39.3% of the revenues from this tax would need to be dedicated to the new EU tax. This is shown in Figure 71.

Figure 71 – Total revenues from Corporate Profit Tax vs. required transfer: FRANCE



[49] INSEE, *ibid.*
[50] IMF (2003), *Article IV Consultation*. Available at: http://www.imf.org/external/np/sec/pn/2003/pn03128.htm

11 Ireland

11.1 Summary of results

Ireland's total GDP in 2005 was approximately EUR 161bn. According to the EU 2005 Budget, the level of annual funding to be provided by Ireland to the EU net of Traditional Resources and the UK rebate was about EUR 1,260m (equivalent to about 0.8% of its GDP).

Table 58 shows GDP (both in absolute and per capita terms) and consumer expenditure for Ireland since 2000.

Table 58 – GDP and Consumer Expenditure: IRELAND

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	104,553	116,757	129,947	138,941	147,569	161,163
GDP per capita (EUR)	27,676	30,461	33,321	35,053	36,639	39,220
Consumer Expenditure per capita (EUR)	16,700	18,400	20,000	21,000	22,000	23,400

Source: Eurostat

On average, total GDP grew by about 9.1% per annum. GDP per capita grew by about 7.2% per annum. Consumption expenditure grew at approximately 7.0% on average per annum.

Table 59 summarises the results of our assessment of the candidate taxes for Ireland. A detailed analysis of each tax is presented in the remainder of this section.

Table 59 – Summary of the assessment of candidate taxes: IRELAND

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	9.5%	96.3%	8.1%	-2.3%
Duty on motor fuel	6.1%	93.3%	not sufficient	
Duties on alcohol and tobacco	2.9%	87.2%	59.5%	-9.4%
Corporate profit tax	7.3%	98.2%	22.9%	-9.2%

Source: Deloitte calculation

The revenues from all the tax candidates considered have been growing during the period under analysis. Revenues from VAT show the highest rate of growth at 9.5% while the revenues from duties on alcohol and tobacco have grown at a lower rate of 2.9% per annum.

All revenues appear to be highly correlated with the country's GDP per capita, in particular the corporate profit tax revenues. Revenues from duties on alcohol and tobacco had the lowest correlation at 87.2%.

Only the duty on motor fuel does not provide sufficient revenues to match Ireland's recent contribution to the EU budget. The lowest share would be required from VAT revenues at 8.1% and the highest share required is that from alcohol and tobacco duties where the share amounts to about 60% of revenues. The share of VAT revenues required is 2.3 percentage points lower than the average share of VAT revenues required across the EU 27 countries. The shares of duties on alcohol and tobacco revenues and corporate profit tax revenues are respectively 9.4 and 9.2 percentage points lower than the EU 27 average.

11.2 VAT

Table 60 shows the level of VAT revenues obtained by Ireland since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports. The revenues reported are gross of refunds.

Table 60 – VAT Revenues: IRELAND

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	9,914	10,548	11,375	12,321	13,635	15,591
% annual change		6.4%	7.8%	8.3%	10.7%	14.3%
VAT on domestic exchanges	8,822	9,556	10,391	11,354	12,598	14,357
VAT on imports	1,093	992	984	967	1,037	1,234

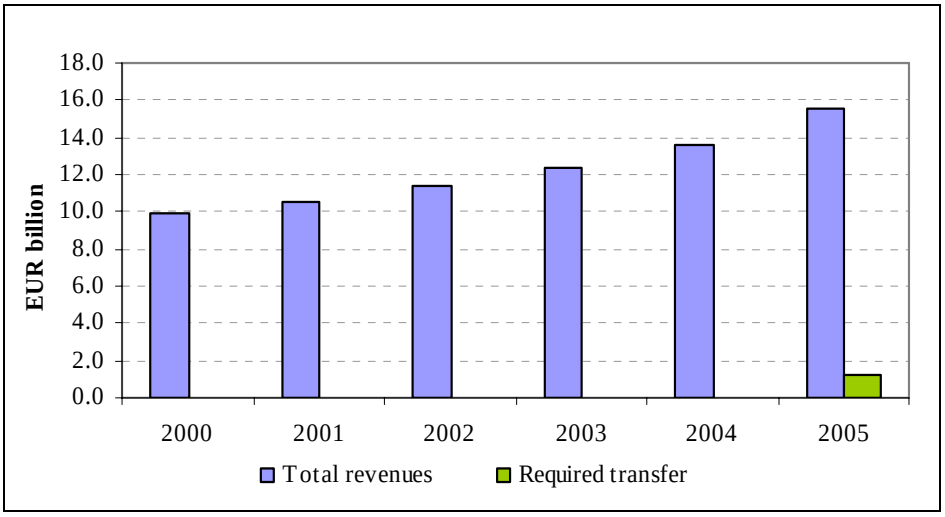
Source: The Irish Revenue Commissioners ([51])

The average annual change in VAT revenues was 9.5%. Revenues from domestic VAT on average accounted for about 91.3% of total VAT revenues. Revenues from VAT were growing over time and are also highly correlated with movements in GDP per capita, with an estimated correlation equal to about 96.3%.

In order to raise a level of revenues that is equal to Ireland's 2005 EU contribution, about 8.1% of total VAT revenues would need to be dedicated to the new EU tax. Considering only domestic VAT, about 8.8% of revenues would be required to match the EU contribution made by Ireland in 2005.

Assuming that all VAT revenues are raised at the standard rate of 21%, the required rate for the new EU tax would be approximately 1.7%. Thus the modified MS VAT rate would equal 19.3%. Figure 72 shows the variation of VAT revenues compared with the transfer required to match Ireland's contribution to the EU budget.

Figure 72 – Total VAT revenues vs. required transfer: IRELAND



[51] The Irish Revenue Commissioners: Taxation and Duty Information, *Statistical Reports*, http://www.revenue.ie/index.htm?/publications/corppubs/statreports.htm

11.3 Excise Duty on Motor Fuel

Table 61 shows the level of revenues obtained by Ireland since 2000 through an excise duty on motor fuel.

Table 61 – Motor Fuel Excise Duty revenues: IRELAND

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	755	725	854	854	971	1,002
% annual change		-3.9%	17.8%	-0.1%	13.7%	3.2%

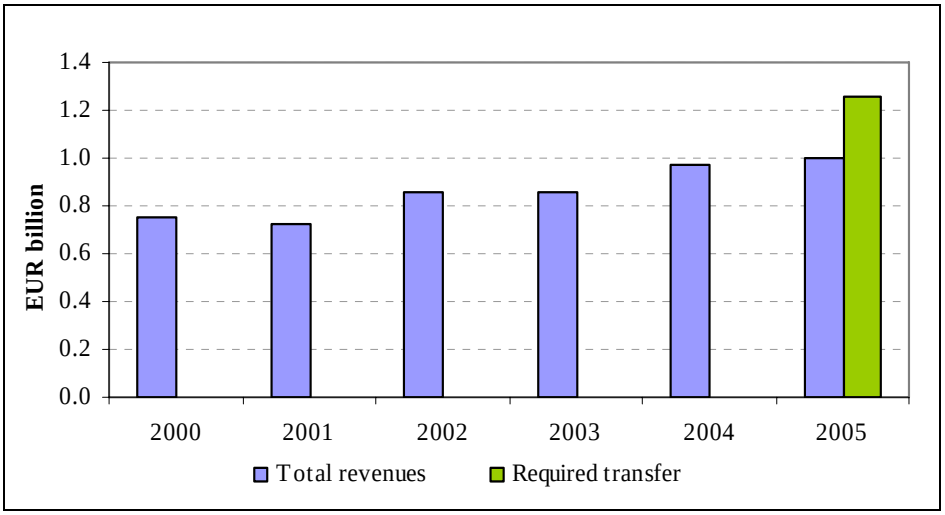
Source: The Irish Revenue Commissioners ([52])

The average annual change in revenues from motor fuel excise duties was 6.1%. Between 2000 and 2005 the revenues showed a high level of variability. In 2001 and 2003 the revenues fell by 3.9% and 0.1% respectively. In 2001, excise receipts were below target partly due to a slowdown in economic growth, a fall in consumer spending on excisable items and the impact of the Budget reductions in duty on petrol and diesel ([53]). However, revenue grew at 17.8% in 2002 and at 13.7% in 2004([54]).

The revenues show a close correlation with GDP per capita, estimated at 93.3%.

The revenues are not sufficient to raise a level of revenues equal to Ireland's 2005 EU Budget contribution as can be seen in Figure 73.

Figure 73 – Total revenues from Motor Fuel Excise Duty vs. required transfer: Ireland



[52] The Irish Revenue Commissioners: Taxation and Duty Information, *Statistical Reports*, http://www.revenue.ie/index.htm?/publications/corppubs/statreports.htm

[53] Irish Revenue (2001), *Annual Report*. Available at: http://www.revenue.ie/annualreport/annualreport_2001/anrep_01.pdf

[54] A possible explanation to the increases in revenue growth in 2002 and 2004 is the increases in excise duty rates that occurred in both years.

11.4 Excise Duty on Alcohol and Tobacco

Table 62 shows the level of revenues obtained by Ireland since 2000 through excise duties on alcohol and tobacco.

Table 62 – Alcohol and Tobacco Excise Duties revenues: IRELAND

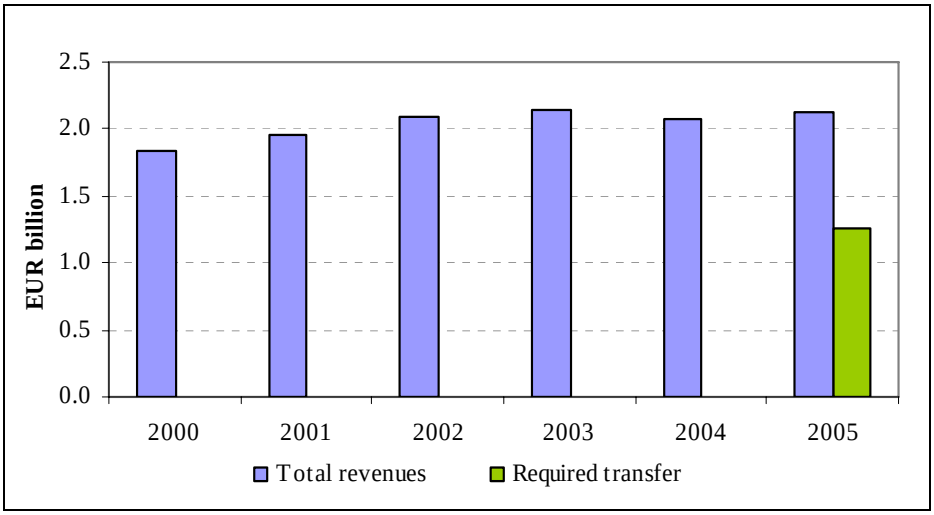
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,839	1,956	2,095	2,146	2,081	2,118
% annual change		6.4%	7.1%	2.4%	-3.0%	1.8%
Alcohol	880	814	958	989	1,022	1,038
Tobacco	959	1,142	1,137	1,157	1,059	1,080

Source: The Irish Revenue Commissioners ([55])

Revenues from alcohol and tobacco excise duties have experienced an annual growth rate of 2.9%. Until 2002, revenues showed fairly high annual growth rates; however, since 2003 growth has decreased. In 2004 revenues fell by 3.0%; however, the following year experienced positive growth again. Their correlation with GDP per capita is relatively high at 87.2%.

The revenues required to raise an amount equal to Ireland's 2005 EU Budget contribution are about 59.5% of the total revenues from alcohol and tobacco excise duties. This is shown in Figure 74.

Figure 74 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: IRELAND



[55] The Irish Revenue Commissioners: Taxation and Duty Information, *Statistical Reports*, http://www.revenue.ie/index.htm?/publications/corppubs/statreports.htm

11.5 Tax on Corporate Profits

Table 63 shows the level of revenues obtained by Ireland since 2000 through corporate profit tax.

Table 63 – Corporate Profit Tax revenues: IRELAND

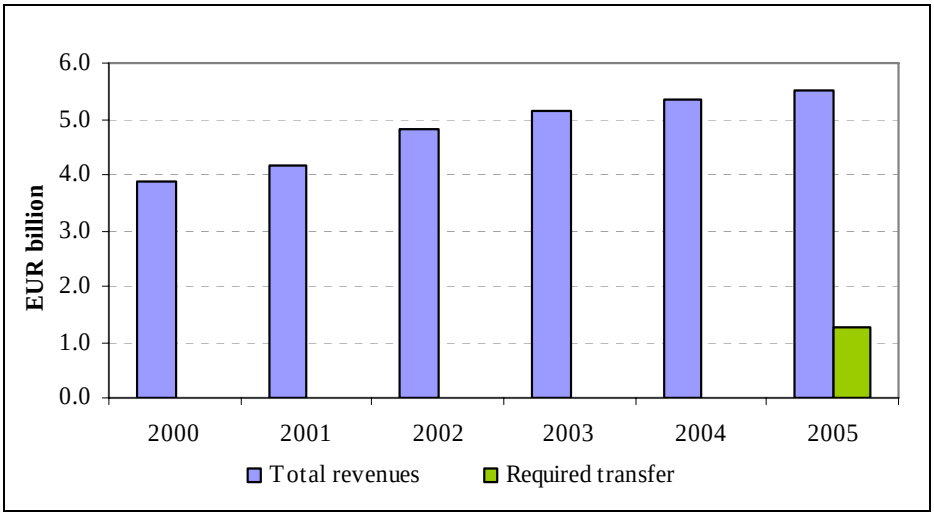
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	3,885	4,145	4,804	5,155	5,335	5,503
% annual change		6.7%	15.9%	7.3%	3.5%	3.2%

Source: The Irish Revenue Commissioners ([56])

Revenues from corporate profit tax during this time period showed fairly high growth rates, in particular up to 2003. In the period's final two years, the growth rate appeared to have stabilised at slightly more than 3% per annum. The average annual growth rate was about 7.3%. Revenues from this tax were growing closely in line with GDP per capita as shown by the high level of correlation of 98.2%.

The share needed to finance the country's 2005 EU Budget contribution is about 22.9% of total revenues. This is shown in Figure 75.

Figure 75 – Total revenues from Corporate Profit Tax vs. required transfer: IRELAND



[56] The Irish Revenue Commissioners: Taxation and Duty Information, *Statistical Reports*, http://www.revenue.ie/index.htm?/publications/corppubs/statreports.htm

12 Italy

12.1 Summary of results

Italy's total GDP in 2005 was approximately EUR 1,417bn. According to the EU 2005 Budget, the level of annual funding to be provided by Italy to the EU net of Traditional Resources and the UK rebate was about EUR 12,205m (equivalent to about 0.9% of its GDP).

Table 64 shows GDP (both in absolute and per capita terms) and consumer expenditure for Italy since 2000.

Table 64 – GDP and Consumer Expenditure: ITALY

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	1,191,057	1,248,648	1,295,226	1,335,354	1,388,870	1,417,241
GDP per capita (EUR)	20,922	21,919	22,726	23,296	23,992	24,242
Consumer Expenditure per capita (EUR)	16,400	17,100	17,700	18,300	18,700	19,200

Source: Eurostat

On average, total GDP has grown by about 3.5% per annum. GDP per capita has grown by about 3.0% per annum. Consumption expenditure grew at approximately 3.2% on average per annum.

Table 65 summarises the results of our assessment of the candidate taxes for Italy. A detailed analysis of each tax is presented in the remainder of this section. The source of the information used in this analysis, Italy's Ministry of Finance, does not provide any public information for the year 2000. Therefore, the analysis has been undertaken for the period 2001-2005.

Table 65 – Summary of the assessment of candidate taxes: ITALY

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	3.7%	81.8%	11.5%	1.1%
Duty on motor fuel	2.0%	90.0%	57.5%	4.6%
Duties on alcohol and tobacco	4.3%	83.4%	not sufficient	
Corporate profit tax	1.4%	-12.0%	36.0%	3.9%

Source: Deloitte calculation

On average, the revenues from all the taxes considered have been growing during the period under analysis. With the exception of corporate profit tax, whose revenue show a fluctuating trend for most of the analysis period, all other taxes show a high level of correlation with GDP per capita.

Only the revenues from excise duties on alcohol and tobacco do not seem to be sufficient to match Italy's recent contribution to the EU budget, while all other taxes appear to be providing a sufficient revenue stream.

The share of VAT revenues required is almost in line with the European average (only 1.1 percentage points higher). The shares of duties on motor fuel revenues and corporate profit tax revenues required are respectively 4.6 and 3.9 percentage points higher than the average across the EU 27 countries.

12.2 VAT

Table 66 shows the level of VAT revenues obtained by Italy since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 66 – VAT Revenues: ITALY

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	91,966	95,515	98,864	101,710	106,179
% annual change		n/a	3.9%	3.5%	2.9%	4.4%
VAT on domestic exchanges	n/a	80,224	84,256	87,714	89,921	93,686
VAT on imports	n/a	11,742	11,259	11,150	11,789	12,493

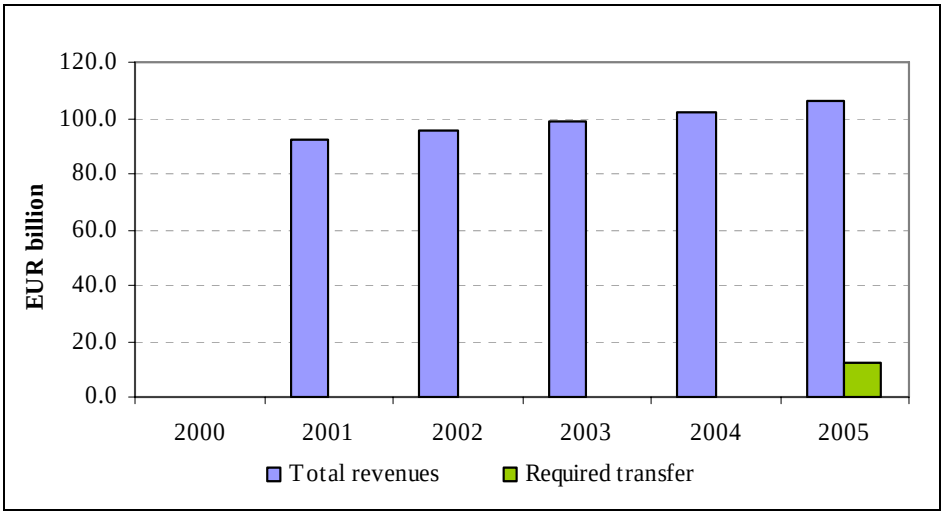
Source: Italy Ministry of Finance ([57])

The average annual change in VAT revenues was 3.7%. Revenues from domestic VAT account on average for about 88.2% of total VAT revenues. VAT revenues were growing consistently during the analysis period and are highly correlated with movements in GDP per capita, with an estimated correlation factor of 97.8%.

In order to raise a level of revenues equal to Italy's 2005 EU Budget contribution, about 11.5% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were to be considered, then about 13.0% of these revenues would need to be transferred to the EU.

Assuming that all VAT revenues are raised at the standard rate of 20%, the required rate for the new EU tax would be approximately 2.3%, while the modified MS VAT rate would be 17.7%. Figure 76 shows the variation of VAT revenues compared with the transfer required to match Italy's contribution to the EU Budget.

Figure 76 – Total VAT revenues vs. required transfer: ITALY



[57] Italy Ministry of Finance, *Bollettini Fiscali*. Available at: http://www.finanze.gov.it/export/sites/default/finanze/dipartimentopolitichefiscali/uffici/economico_fiscali/bollettini.htm

12.3 Excise Duty on Motor Fuel

Table 67 shows the level of revenues obtained by Italy since 2000 through an excise duty on motor fuel.

Table 67 – Motor Fuel Excise Duty revenues: ITALY

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	19,604	19,912	21,050	20,752	21,221
% annual change		n/a	1.6%	5.7%	-1.4%	2.3%

Source: Italy Ministry of Finance ([58])

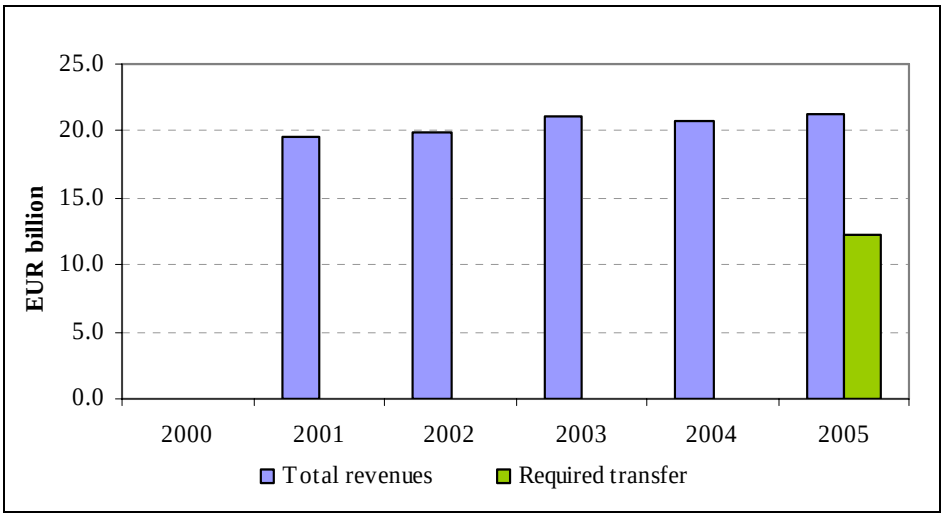
The average annual change in revenues from motor fuel excise duties was about 2.0%. However, revenues were fluctuating, alternating years of low growth or decline with years of positive growth. For this reason, the revenues from this tax are correlated with GDP per capita, although to a lesser extent compared with VAT revenues. The estimated correlation coefficient is about 90.0%.

In order to raise a level of revenues equal to Italy's 2005 EU Budget contribution, about 57.5% of revenues from this tax would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 564 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 324 per 1000 litres would need to be transferred to the EU.

Figure 77 shows the variation of total fuel excise revenues compared with the transfer required to match Italy's contribution to the EU Budget.

Figure 77 – Total revenues from Motor Fuel Excise Duty vs. required transfer: ITALY



[58] Italy Ministry of Finance, *ibid.*

12.4 Excise Duty on Alcohol and Tobacco

Table 68 shows the level of revenues obtained by Italy since 2000 through excise duties on alcohol and tobacco.

Table 68 – Alcohol and Tobacco Excise Duties revenues: ITALY

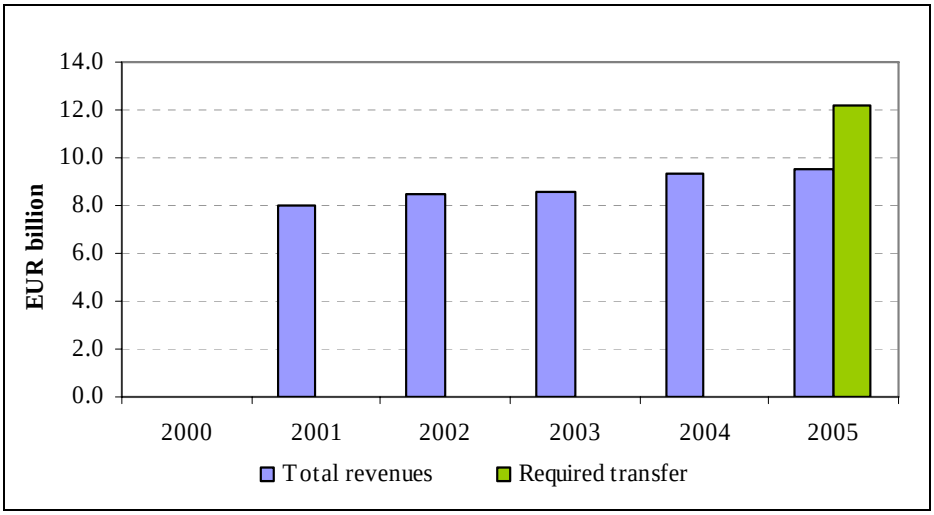
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	8,037	8,434	8,575	9,291	9,493
% annual change		n/a	4.9%	1.7%	8.3%	2.2%
Alcohol	n/a	581	563	528	571	590
Tobacco	n/a	7,456	7,871	8,047	8,720	8,903

Source: Italy Ministry of Finance ([59])

Revenues from these taxes showed fluctuating growth rates, alternating years of higher growth (2002 and 2004) with years of lower growth (2003 and 2005). Overall, the average annual growth rate was about 4.3%. The correlation with GDP per capita is not very high, with an estimated correlation coefficient of about 83.4%.

The combined revenues obtained from these two types of excise duties are not sufficient to match Italy's 2005 EU budget contribution, as shown in Figure 78.

Figure 78 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: ITALY



[59] Italy Ministry of Finance, *ibid.*

12.5 Tax on Corporate Profits

Table 69 shows the level of revenues obtained by Italy since 2000 through corporate profit tax.

Table 69 – Corporate Profit Tax revenues: ITALY

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	32,758	30,185	28,682	28,335	33,918
% annual change		n/a	-7.9%	-5.0%	-1.2%	19.7%

Source: Italy Ministry of Finance ([60])

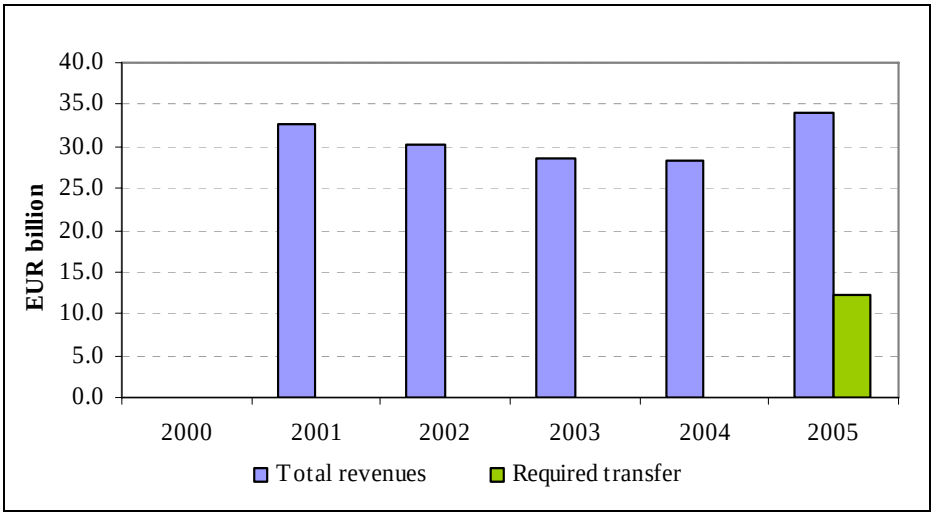
Revenues from Corporate Profit tax showed negative growth rates for most of the period under analysis. This trend was interrupted in 2005, with a large annual increase of about 19.7%. Overall, the average annual growth rate is positive, equal to about 1.4%.

Because of their declining trend, the revenues from this tax are not correlated with GDP per capita, with an estimated correlation factor of about -12.0%.

In order to raise a level of revenues equal to Italy's 2005 EU budget contribution, about 36% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 79 shows the variation of corporate profit tax revenues compared with the transfer required to match Italy's contribution to the EU budget.

Figure 79 – Total revenues from Corporate Profit Tax vs. required transfer: ITALY



[60] Italy Ministry of Finance, *ibid.*

13 Cyprus

13.1 Summary of results

Cyprus' total GDP in 2005 was approximately EUR 13,6bn. According to the EU 2005 Budget, the level of annual funding to be provided by Cyprus to the EU net of Traditional Resources and the UK rebate was about EUR 115m (equivalent to about 0.8% of its GDP).

Table 70 shows GDP (both in absolute and per capita terms) and consumer expenditure for Cyprus since 2000.

Table 70 – GDP and Consumer Expenditure: CYPRUS

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	10,079	10,801	11,153	11,755	12,701	13,629
GDP per capita (EUR)	14,596	15,485	15,809	16,438	17,388	18,191
Consumer Expenditure per capita (EUR)	11,700	12,500	13,000	13,600	14,100	15,000

Source: Eurostat

On average, total GDP grew by about 6.2% per annum. GDP per capita grew by about 4.5% per annum. Consumption expenditure has grown at approximately 5.1% on average per annum.

Table 71 summarises the results of our assessment of the candidate taxes for Cyprus. A detailed analysis of each tax is presented in the remainder of this section.

Table 71 – Summary of the assessment of candidate taxes: CYPRUS

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	18.9%	98.9%	9.4%	-1.0%
Duty on motor fuel	34.8%	92.6%	44.8%	-8.1%
Duties on alcohol and tobacco	19.2%	97.1%	61.3%	-7.6%
Corporate profit tax	3.0%	-10.8%	15.6%	-16.5%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing during the period under analysis. Revenues from duty on motor fuel show the highest rate of growth at 34.8%, while the lowest growth rate is shown by revenues from corporation tax at 3.0%.

The revenue streams from VAT, duty on motor fuel and duties on alcohol and tobacco appear to be highly correlated with the country's GDP per capita. Revenues from corporate profit tax show a negative correlation factor of -10.8% with GDP per capita.

All candidate taxes generate revenues that are sufficient to match Cyprus' recent contribution to the EU Budget, while a relatively large proportion of duties on alcohol and tobacco would be required to match the 2005 transfer. The share of VAT revenues required is 1.0 percentage points below the EU 27 average. The shares of duties on fuel revenues, duties alcohol and tobacco and of corporate tax revenues are respectively 8.1, 7.6 and 16.5 percentage points lower than the EU 27 average.

13.2 VAT

Table 72 shows the level of VAT revenues obtained by Cyprus since 2000.

Table 72 – VAT Revenues: CYPRUS

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	516	600	703	911	1,058	1,222
% annual change		16.2%	17.1%	29.5%	16.1%	15.5%
VAT on domestic exchanges	320	370	440	584	667	823
VAT on imports	196	231	263	327	391	399

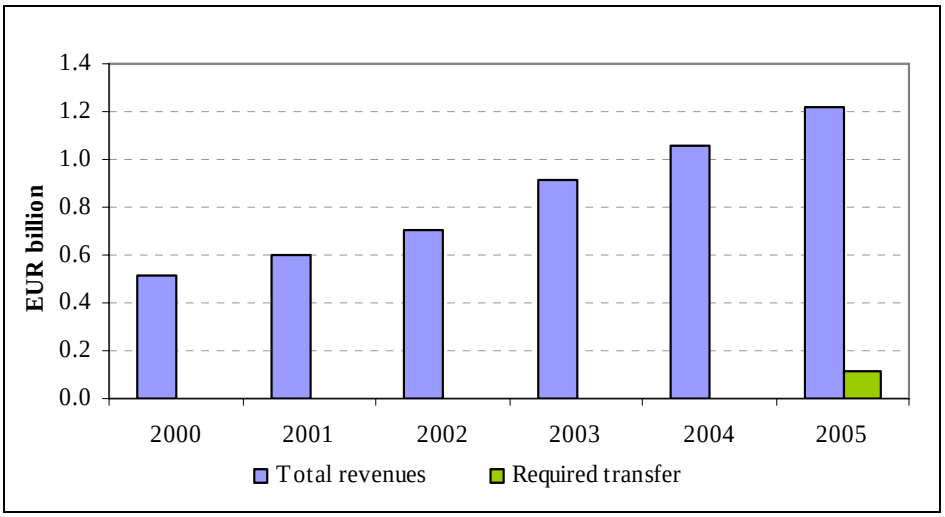
Source: Statistical Service of Cyprus ([61])

The average annual change in VAT revenues was 18.9%. Revenues from VAT were growing over time and are also highly correlated with movements in GDP per capita. The estimated correlation is about 98.9%.

In order to raise a level of revenues equal to Cyprus' 2005 EU Budget contribution, about 9.4% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic revenues were to be considered, then about 14% of these revenues would need to be transferred to the EU.

Assuming that all VAT revenues are raised at the standard rate of 15%, the required rate for the new EU tax would be approximately 1.4%. The modified MS VAT rate would thus equal 13.6%. Figure 80 shows the variation in VAT revenues compared with the transfer required to match Cyprus's contribution to the EU Budget.

Figure 80 – Total VAT revenues vs. required transfer: CYPRUS



[61] Address: www.mof.gov.cy/cystat , Internal data provided to us by Mr Georgios Sarris gsarris@cystat.mof.gov.cy

13.3 Excise Duty on Motor Fuel

Table 73 shows the level of revenues obtained by Cyprus since 2000 through an excise duty on motor fuel.

Table 73 – Motor Fuel Excise Duty revenues: CYPRUS

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	70	104	110	230	260	256
% annual change		47.5%	6.0%	109.2%	12.6%	-1.2%

Source: Statistical Service of Cyprus ([62])

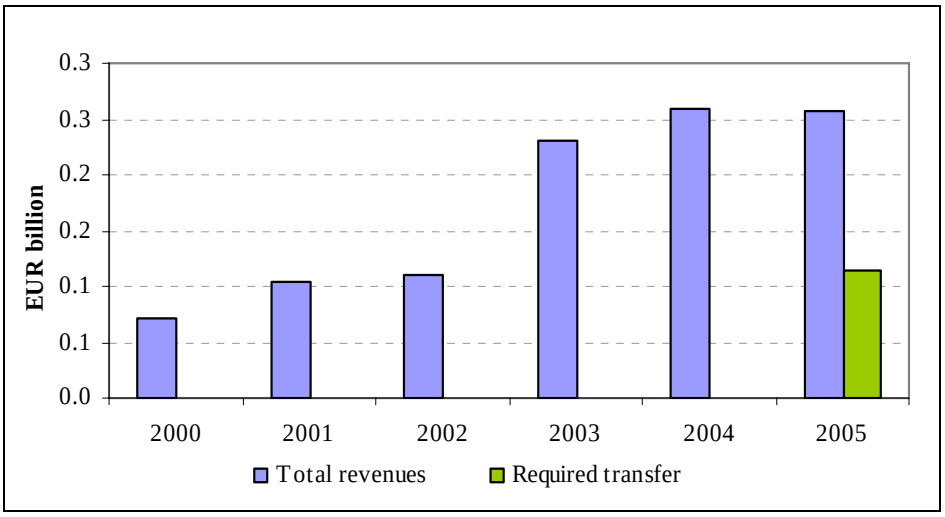
The average annual change in revenues from motor fuel excise duties was 34.8%. Revenues grew until 2004 (and more than doubled in 2003). However, they declined slightly in 2005.

Revenues grew at a very high rate during the time period considered and appear to be closely correlated with movements in GDP per capita, with a correlation factor of about 92.6%.

Given that the average motor fuel excise duty is approximately EUR 364 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 163 per 1000 litres would need to be transferred to the EU. This is equivalent of a share of 44.8% of revenues required to match the country's recent Budget contribution.

Figure 81 shows the variation of excise duty on motor fuel revenues compared with the transfer required to match Cyprus' contribution to the EU Budget.

Figure 81 – Total revenues from Motor Fuel Excise Duty vs. required transfer: CYPRUS



[62] Address: www.mof.gov.cy/cystat , Internal data provided to us by Mr Georgios Sarris gsarris@cystat.mof.gov.cy

13.4 Excise Duty on Alcohol and Tobacco

Table 74 shows the level of revenues obtained by Cyprus since 2000 through excise duties on alcohol and tobacco.

Table 74 – Alcohol and Tobacco Excise Duties revenues: CYPRUS

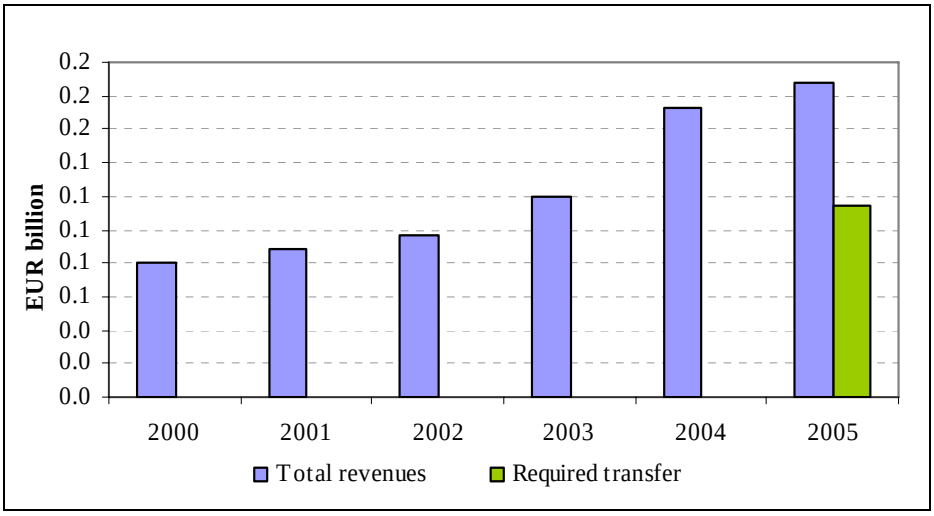
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	80	89	96	120	172	187
% annual change		10.6%	8.5%	24.4%	43.6%	8.8%
Alcohol	12	13	13	14	20	26
Tobacco	69	76	84	106	153	162

Source: Statistical Service of Cyprus ([63])

Revenues from these taxes showed fairly high annual growth rates, with the highest value (43.6%) recorded in 2004. The average annual growth rate was about 19.2%. Their correlation with GDP per capita is also high, with a coefficient equal to 97.1%.

The share required to match the country's recent EU Budget contribution is 61.3% of the combined revenues obtained from these two types of excise duties, as can be seen in Figure 82.

Figure 82 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: CYPRUS



[63] Address: www.mof.gov.cy/cystat , Internal data provided to us by Mr Georgios Sarris gsarris@cystat.mof.gov.cy

13.5 Tax on Corporate Profits

Table 75 shows the level of revenues obtained by Cyprus since 2000 through corporate profit tax.

Table 75 – Corporate Profit Tax revenues: CYPRUS

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	671	710	718	592	570	738
% annual change		5.8%	1.1%	-17.5%	-3.7%	29.4%

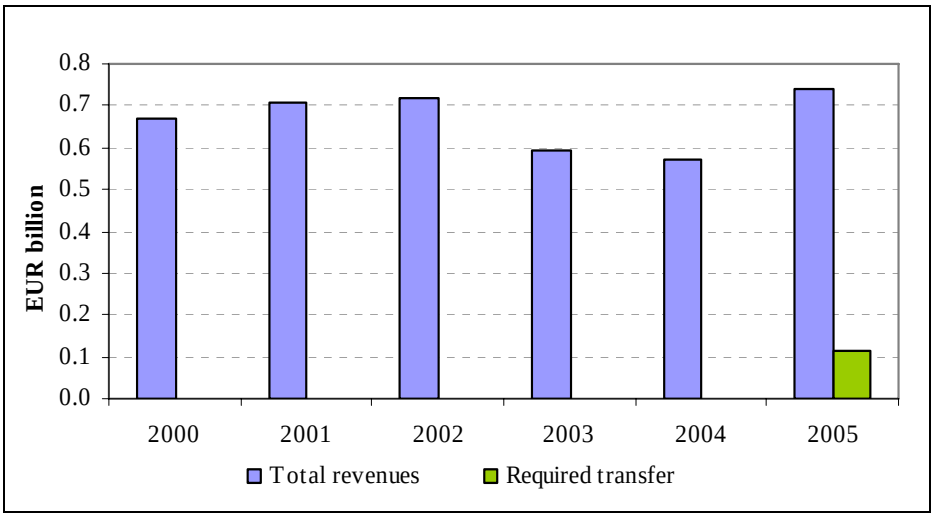
Source: Statistical Service of Cyprus ([64])

Revenues from corporate profit tax fluctuated somewhat during the period between 2000 and 2005. Both 2001 and 2002 experienced positive growth, while 2003 and 2004 saw revenues declining by 17.5% and 3.7% respectively. In the final year of the period, revenues peaked at a rate of 29.4%. During this period, the average annual growth rate was about 30%.

The correlation with GDP per capita for these revenues is negative, with a correlation estimate equal to -10.8%.

In order to raise a level of revenues equal to Cyprus' 2005 EU Budget contribution, about 15.6% of the total revenues must be dedicated to the new EU tax. This finding is shown in Figure 83.

Figure 83 – Total revenues from Corporate Profit Tax vs. required transfer: CYPRUS



[64] Address: www.mof.gov.cy/cystat , Internal data provided to us by Mr Georgios Sarris gsarris@cystat.mof.gov.cy

14 Latvia

14.1 Summary of results

Latvia's total GDP in 2005 was approximately EUR 12bn. According to the EU 2005 Budget, the level of annual funding to be provided by Latvia to the EU net of Traditional Resources and the UK rebate was about EUR 109m (equivalent to about 0.9% of its GDP).

Table 76 shows GDP (both in absolute and per capita terms) and consumer expenditure for Latvia since 2000.

Table 76 – GDP and Consumer Expenditure: LATVIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	8,496	9,320	9,911	9,978	11,157	12,837
GDP per capita (EUR)	3,567	3,942	4,225	4,280	4,811	5,566
Consumer Expenditure per capita (EUR)	3,000	3,300	3,500	3,600	4,000	4,500

Source: Eurostat

On average, total GDP grew by about 8.7% per annum. GDP per capita grew by about 9.4% per annum. Consumption expenditure grew at approximately 8.5% on average per annum.

Table 77 summarises the results of our assessment of the candidate taxes for Latvia. A detailed analysis of each tax is presented in the remainder of this section.

Table 77 – Summary of the assessment of candidate taxes: LATVIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	16.5%	97.4%	10.8%	0.4%
Duty on motor fuel	18.8%	97.0%	37.6%	-15.3%
Duties on alcohol and tobacco	12.9%	93.6%	68.9%	0%
Corporate profit tax	21.6%	97.2%	42.1%	10.0%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing at high annual rates during the period under analysis. Corporate profit tax has shown the highest growth rate (about 21.6% p.a.) while VAT revenues have grown at about 16.5% per annum.

All revenue streams appear to be highly correlated with the country's GDP per capita, which was also growing at a fast pace.

Finally, each tax seem to be able to provide sufficient revenues to match Latvia's recent contribution to the EU budget.

The share of VAT revenues required is almost equal to the average share required across the EU 27 countries (only 0.4 percentage points higher), while the share of duties on alcohol and tobacco revenues are exactly equal to the EU average. The share of duties on motor fuel are 15.3 percentage point below the EU 27 average with the share of corporate profit tax revenues 10 percentage points above the EU average.

14.2 VAT

Table 78 shows the level of VAT revenues obtained by Latvia since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 78 – VAT Revenues: LATVIA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	481	505	552	663	746	1,013
% annual change		4.8%	9.4%	20.1%	12.4%	35.8%
VAT on domestic exchanges	71	28	14	28	331	744
VAT on imports	410	477	538	635	415	269

Source: Latvia Finance Ministry ([65])

The average annual change in VAT revenues was about 16.5%. However, revenues showed much higher rates of growth in the second half of the period under analysis, reaching an annual growth of about 35.8%. This was mainly due to the development of a domestic VAT system in line with EU practice: domestic revenues, which in 2000 represented only a fraction of total VAT, have grown to account for about 75% of total revenues.

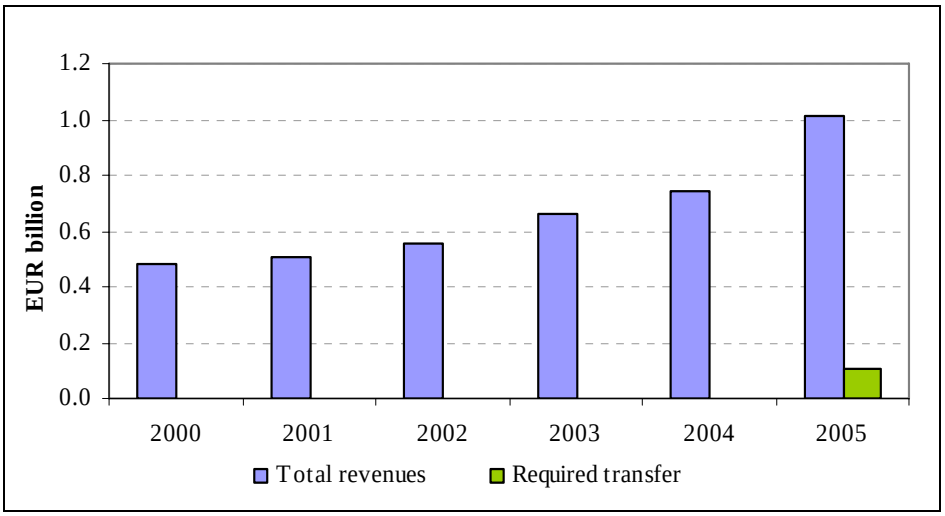
VAT revenues appear to be highly correlated to movements in GDP per capita, with an estimated correlation factor of about 97.4%.

In order to raise a level of revenues equal to Latvia's 2005 EU Budget contribution, about 10.8% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were to be considered, then about 14.7% of these revenues would need to be transferred to the EU.

Assuming that all VAT revenues are raised at the standard rate of 18%, the required rate for the new EU tax would be approximately 1.9%, while the modified MS VAT rate would be 16.1%.

Figure 84 shows the variation of VAT revenues compared with the transfer required to match Latvia's contribution to the EU Budget.

Figure 84 – Total VAT revenues vs. required transfer: LATVIA



[65] Latvia Finance Ministry, Tax Policy Department (contact: Diana Lukjanska, pasts@fm.gov.lv)

14.3 Excise Duty on Motor Fuel

Table 79 shows the level of revenues obtained by Latvia since 2000 through an excise duty on motor fuel.

Table 79 – Motor Fuel Excise Duty revenues: Latvia

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	126	124	146	182	228	291
% annual change		-1.7%	17.7%	24.9%	25.5%	27.7%

Source: Latvia Finance Ministry ([66])

The average annual change in revenues from motor fuel excise duties was 18.8%. With the exception of 2001, when the growth rate was negative, revenues grew at a high rate for the rest of the analysis period.

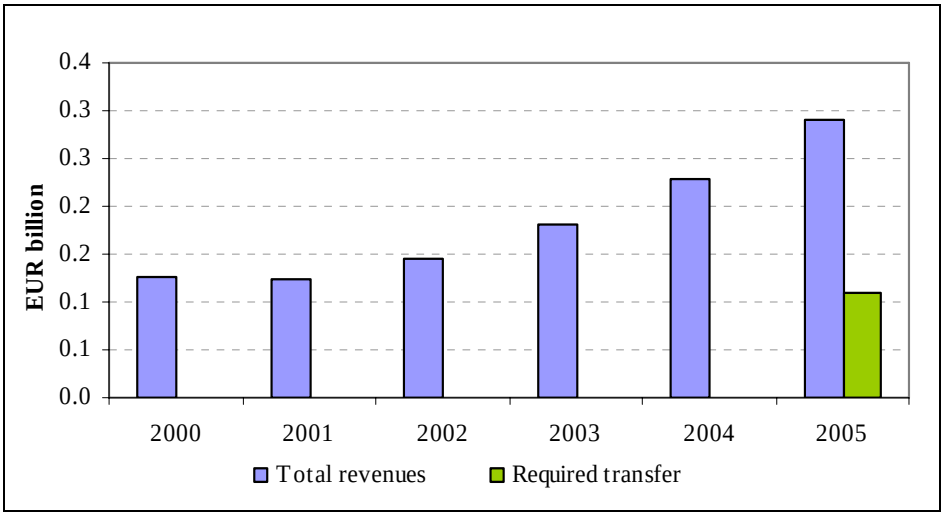
Revenues therefore appear to be closely correlated with movements in GDP per capital, with an estimated correlation factor of about 97.0%.

In order to raise a level of revenues equal to Latvia's 2005 EU Budget contribution, about 37.6% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 340 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 128 per 1000 litres would need to be transferred to the EU.

Figure 85 shows the variation in total motor fuel excise revenues compared with the transfer required to match Latvia's contribution to the EU Budget.

Figure 85 – Total revenues from Motor Fuel Excise Duty vs. required transfer: LATVIA



[66] Latvia Finance Ministry, *ibid.*

14.4 Excise Duty on Alcohol and Tobacco

Table 80 shows the level of revenues obtained by Latvia since 2000 through excise duties on alcohol and tobacco.

Table 80 – Alcohol and Tobacco Excise Duties revenues: LATVIA

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	90	88	90	92	121	159
% annual change		-2.2%	1.5%	2.9%	31.5%	30.7%
Alcohol	64	58	60	59	65	91
Tobacco	27	31	30	33	57	68

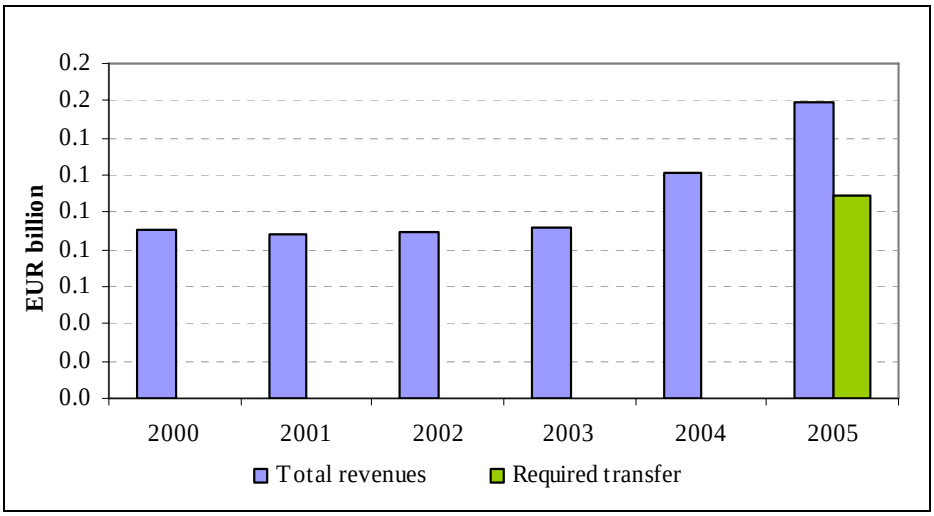
Source: Latvia Finance Ministry ([67])

After a decline in 2001, revenues from these taxes showed positive growth rates for the rest of period under analysis. Revenues increased substantially from 2004 onwards, with annual growth rates about 30%. Overall, the average annual growth rate was about 12.9%. Due to the initial fall in revenues, the correlation with GDP per capita is lower compared to other taxes, but still high, with an estimated correlation coefficient of about 93.6%.

In order to raise a level of revenues equal to Latvia's 2005 EU Budget contribution, about 68.9% of total revenues would need to be dedicated to the new EU tax.

Figure 86 shows the variation in total alcohol and tobacco excise revenues compared with the transfer required to match Latvia's contribution to the EU Budget.

Figure 86 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: LATVIA



[67] Latvia Finance Ministry, *ibid.*

14.5 Tax on Corporate Profits

Table 81 shows the level of revenues obtained by Latvia since 2000 through corporate profit tax.

Table 81 – Corporate Profit Tax revenues: LATVIA

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	106	142	158	135	184	260
% annual change		33.5%	11.5%	-14.4%	36.1%	41.4%

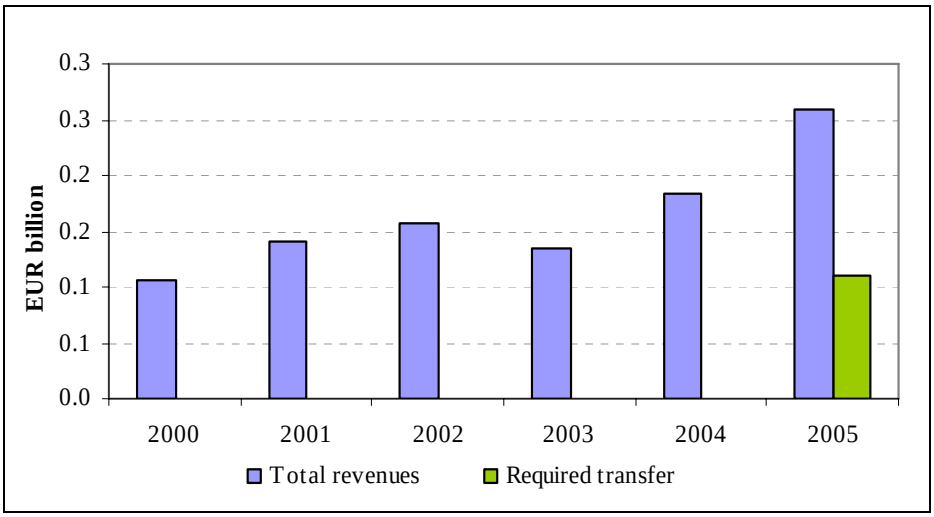
Source: Latvia Finance Ministry ([68])

The revenues from corporate profit tax grew at an average annual rate of about 21.6%. In most years, revenues showed high growth rates, with the exception of 2003, which experienced a decline of about 14.4%. The highest annual growth (about 41.4%) was achieved in 2005. Overall, the correlation with GDP per capita is high, with a correlation factor of about 97.2%.

In order to raise a level of revenues equal to Latvia's 2005 EU Budget contribution, about 42.1% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 87 shows the variation in corporate profit tax revenues compared with the transfer required to match Latvia's contribution to the EU budget.

Figure 87 – Total revenues from Corporate Profit Tax vs. required transfer: LATVIA



[68] Latvia Finance Ministry, *ibid.*

15 Lithuania

15.1 Summary of results

Lithuania's total GDP in 2005 was approximately EUR 20.6bn. According to the EU 2005 Budget, the level of annual funding to be provided by Lithuania to the EU net of Traditional Resources and the UK rebate was about EUR 173m (equivalent to about 0.8% of its GDP).

Table 82 shows GDP (both in absolute and per capita terms) and consumer expenditure for Lithuania since 2000.

Table 82 – GDP and Consumer Expenditure: LITHUANIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	12,360	13,562	15,023	16,452	18,126	20,621
GDP per capita (EUR)	3,519	3,889	4,322	4,751	5,260	6,020
Consumer Expenditure per capita (EUR)	3,100	3,300	3,600	3,900	4,400	5,000

Source: Eurostat

On average, total GDP grew by about 10.8% per annum. GDP per capita grew by about 11.3% per annum. Consumption expenditure grew at approximately 10.1% on average per annum.

Table 83 summarises the results of our assessment of the candidate taxes for Lithuania. A detailed analysis of each tax is presented in the remainder of this section.

Table 83 – Summary of the assessment of candidate taxes: LITHUANIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from the EU 27 average
VAT	7.5%	93.1%	12.3%	1.9%
Duty on motor fuel	6.1%	89.8%	54.9%	2.0%
Duties on alcohol and tobacco	5.7%	84.9%	81.6%	12.7%
Corporate profit tax	53.7%	94.9%	39.6%	7.5%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing during the time period between 2000 and 2005. The highest rate of growth was experienced by corporate profit tax revenues which grew by 53.7% annually, as well as experiencing the highest correlation with GDP per capita.

The revenues from all other taxes were also highly correlated with GDP per capita, with duties on alcohol and tobacco showing the lowest correlation of the four tax candidates.

Revenues from all the taxes are sufficient to match Lithuania's recent contribution to the EU budget, although a relatively high share (81.6%) from the duty on alcohol and tobacco would be required to match the 2005 transfer.

The shares of required VAT revenues and corporate profit tax revenues are respectively 1.9 and 7.5 percentage points higher than the EU 27 average. The required share of duties on motor fuel and duties on alcohol and tobacco revenues are respectively 2.0 and 12.7 percentage points higher than the average shares required across the EU 27 countries.

15.2 VAT

Table 84 shows the level of VAT revenues obtained by Lithuania since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 84 – VAT Revenues: LITHUANIA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	991	1,017	1,103	1,107	1,138	1,403
% annual change		2.7%	8.5%	0.4%	2.8%	23.2%
VAT on domestic exchanges	382	299	270	195	544	1,070
VAT on imports	609	718	834	912	594	333

Source: Lithuanian Department of Statistics ([69])

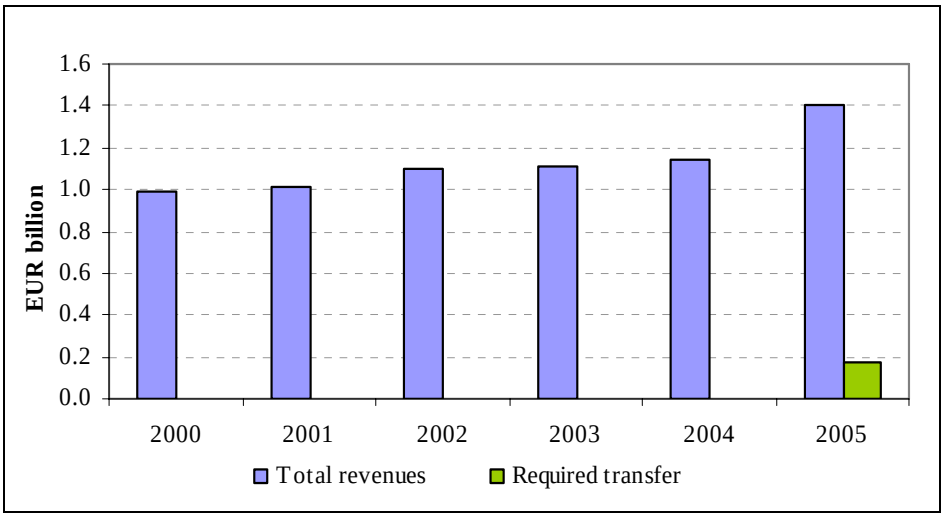
The average annual change in VAT revenues was 7.5%. Revenues grew in all years of the period under analysis, with the exception of 2003 when they were practically constant. In 2005, annual revenue growth peaked at its highest rate of 23.2%. Revenues from domestic VAT account for about 39% of total VAT revenues. Revenues are also highly correlated with GDP per capita. The estimated correlation factor is about 93.1%.

In order to raise a level of revenues equal to the country's 2005 EU Budget contribution, about 12.3% of total VAT revenues would need to be dedicated to the new tax. If only domestic VAT were to be considered, then about 16.2% of these revenues would need to be transferred to the EU.

Assuming all VAT revenues are raised at the standard rate of 18%, the required rate for the new EU tax is estimated to be about 2.2%. Thus the modified MS VAT rate would equal 15.8%.

Figure 88 shows the variation of VAT revenues compared with the transfer required to match Lithuania's contribution to the EU Budget.

Figure 88 – Total VAT revenues vs. required transfer: LITHUANIA



[69] Lithuanian Department of Statistics (http://www.stat.lt.gov)

15.3 Excise Duty on Motor Fuel

Table 85 shows the level of revenues obtained by Lithuania since 2000 through an excise duty on motor fuel.

Table 85 – Motor Fuel Excise Duty revenues: LITHUANIA

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	237	258	278	310	292	315
% annual change		9.0%	7.5%	11.6%	-5.6%	7.8%

Source: Lithuanian Department of Statistics ([70])

The average annual change in revenues from motor fuel excise duties was 6.1%. Apart from 2004 when the revenues declined at 5.6% annually, the revenues grew in every year of the time period. In the last year of the observation period revenues increased again at an annual rate of 7.8%.

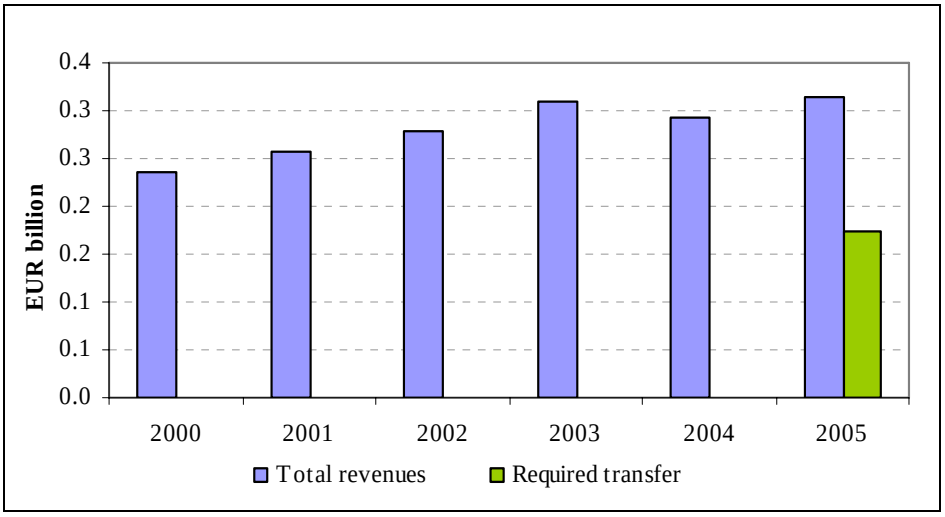
Revenues show a relatively high correlation coefficient of about 89.8%.

In order to raise a level of revenues equal to Lithuania's 2005 EU Budget contribution, a share of 54.9% of the revenues from the excise duty on motor fuel would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 354 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel); about EUR 194 per 1000 litres would need to be transferred to the EU.

Figure 53 shows the variation in total fuel excise revenues compared with the transfer required to match Lithuania's contribution to the EU budget.

Figure 89 – Total revenues from Motor Fuel Excise Duty vs. required transfer: LITHUANIA



[70] Lithuanian Department of Statistics, *ibid.*

15.4 Excise Duty on Alcohol and Tobacco

Table 86 shows the level of revenues obtained by Lithuania since 2000 through excise duties on alcohol and tobacco.

Table 86 – Alcohol and Tobacco Excise Duties revenues: LITHUANIA

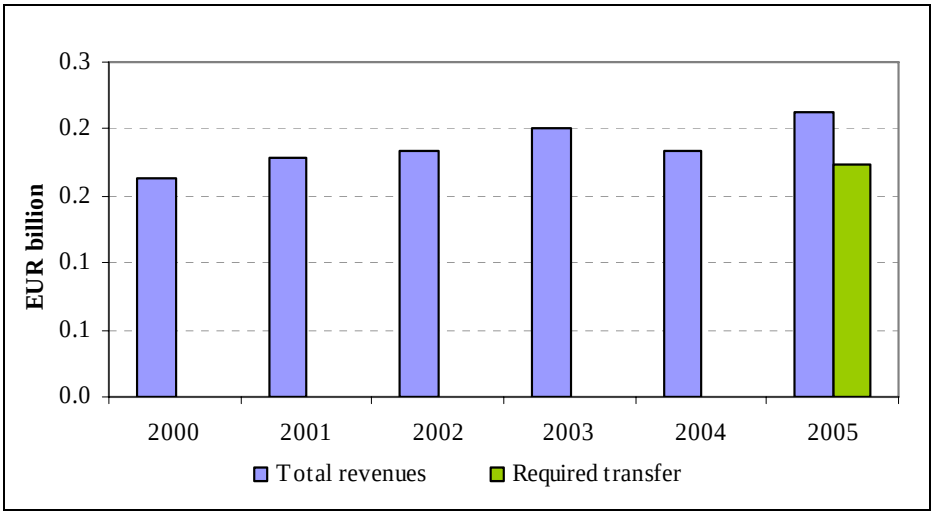
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	163	179	185	201	183	212
% annual change		9.7%	3.1%	9.1%	-9.0%	15.8%
Alcohol	122	129	135	143	120	137
Tobacco	41	50	50	58	63	75

Source: Lithuanian Department of Statistics ([71])

Revenues from these taxes have shown relatively high growth rates in all years but 2004 (-9.0%). In 2005 the annual revenue growth rate peaked at 15.8%. The average annual growth rate has been about 5.7%. The correlation of revenues with GDP per capita is fairly high at 84.9%.

In order to match the country's recent EU Budget contribution, 81.6% of the revenues from alcohol and tobacco excise duties would have to be dedicated to the new EU tax. This is shown in Figure 90.

Figure 90 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: LITHUANIA



[71] Lithuanian Department of Statistics, *ibid.*

15.5 Tax on Corporate Profits

Table 87 shows the level of revenues obtained by Lithuania since 2000 through corporate profit tax.

Table 87 – Corporate Profit Tax revenues: LITHUANIA

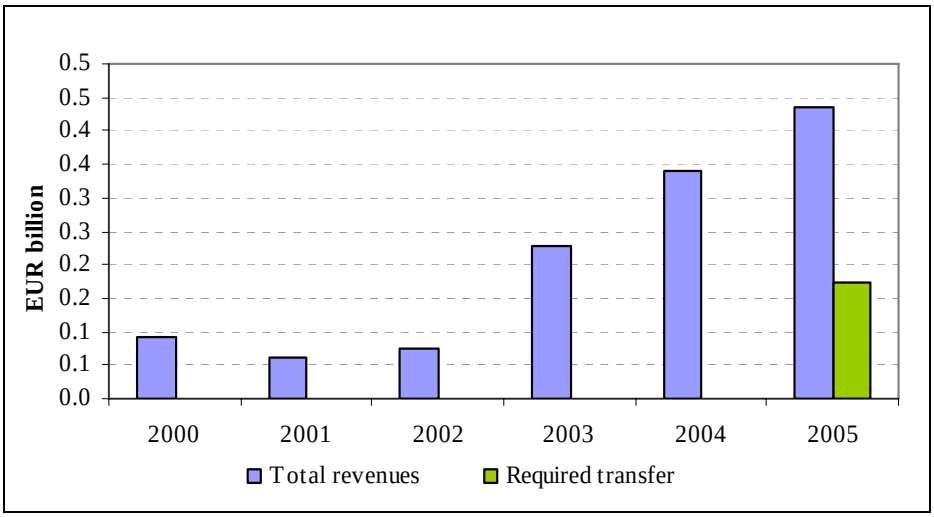
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	90	61	76	227	339	437
% annual change		-32.5%	25.5%	197.5%	48.9%	29.0%

Source: Lithuanian Department of Statistics ([72])

Since 2002, revenues from corporate profit tax showed high annual growth. The average annual growth rate was about 53.7%. In 2003 revenues grew at 197.5%, which is the highest growth observed during this period. In the final two years, revenue growth rates remained high at 48.9% in 2004 and at 29.0% in 2005. Revenues from this tax show a high level of correlation with GDP per capita of about 94.9%.

In order to raise a level of revenues equal to Lithuania's 2005 EU budget contribution, about 39.6% of the revenues from this tax would need to be dedicated to the new EU tax; this is shown in Figure 91.

Figure 91 – Total revenues from Corporate Profit Tax vs. required transfer: LITHUANIA



[72] Lithuanian Department of Statistics, *ibid.*

16 Luxembourg

16.1 Summary of results

Luxembourg's total GDP in 2005 was approximately EUR 29bn. According to the EU 2005 Budget, the level of annual funding to be provided by Luxembourg to the EU net of Traditional Resources and the UK rebate is equal to about EUR 211m (equivalent to about 0.7% of its GDP)

Table 28 shows GDP (both in absolute and per capita terms) and consumer expenditure for Luxembourg since 2000.

Table 88 – GDP and Consumer Expenditure: LUXEMBOURG

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	22,001	22,572	24,081	25,607	26,996	29,396
GDP per capita (EUR)	50,739	51,418	54,225	57,119	59,779	64,607
Consumer Expenditure per capita (EUR)	28,000	29,600	31,300	32,700	34,500	36,900

Source: Eurostat

On average, total GDP grew by about 6.0% per annum. GDP per capita grew by about 5.0% per annum. Consumption expenditure grew at approximately 5.7% on average per annum.

Table 29 summarises the results of our assessment of the candidate taxes for Luxembourg. A detailed analysis of each tax is presented in the remainder of this section.

Table 89 – Summary of the assessment of candidate taxes: LUXEMBOURG

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	8.5%	98.2%	12.3%	1.9%
Duty on motor fuel	n/a	n/a	n/a	
Duties on alcohol and tobacco	12.6%	95.8%	not sufficient	
Corporate profit tax	3.4%	19.4%	12.0%	-20.1%

Source: Deloitte calculation

Revenues from all tax candidates considered have been growing during the period under analysis, with revenues from alcohol and tobacco duties growing at the highest rate (12.6%) and revenues from corporate profit tax growing at the lowest (3.4%).

According to Statec, the National Statistics Office, Luxembourg does not raise any motor fuel tax domestically but only on imported motor fuel. For consistency reasons, we have excluded the section on duties on motor fuel from the analysis.

Revenue streams from VAT and from duties on alcohol and tobacco appear to be highly correlated with the country's GDP per capita, while revenues from corporate profit tax show a lower, yet still positive, correlation.

Only the excise duties on alcohol and tobacco do not provide, on their own, revenues sufficient to match Luxembourg's recent contribution to the EU Budget. The required share of VAT revenues is 1.9 percentage points higher than the EU 27 average, while the required share of corporate profit tax revenues is 20.1 percentage points lower than the average across the EU 27 countries.

16.2 VAT

Table 90 shows the level of VAT revenues obtained by Luxembourg since 2000. The National Statistics Office of Luxembourg, the source of the information used for this analysis, was unable to provide us with data on the breakdown of VAT revenues into its components.

Table 90 – VAT Revenues: LUXEMBOURG

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,142	1,238	1,323	1,415	1,614	1,711
% annual change		8.4%	6.9%	7.0%	14.0%	6.0%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: Statec, National Statistics Office of Luxembourg ([73])

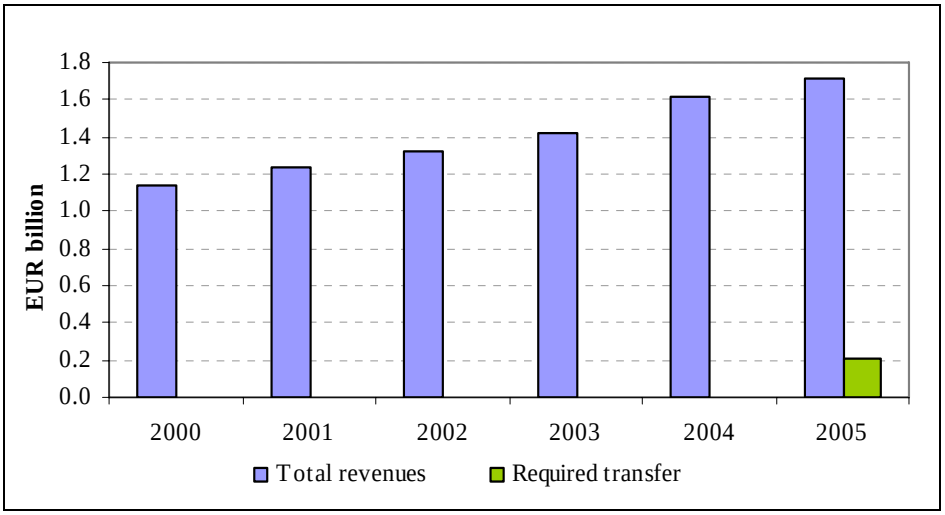
The average annual change in VAT revenues was 8.5%. Revenues from VAT were growing over time and are also highly correlated with GDP per capita. The estimated correlation is equal to about 98.2%.

In order to raise a level of revenues equal to Luxembourg's 2005 EU Budget contribution, about 12.3% of total VAT revenues would need to be dedicated to the new EU tax.

Assuming all VAT revenues are raised at the standard rate of 15%, the rate needed for the EU tax would be about 1.9%. This would yield a modified MS VAT rate of 13.1%.

Figure 92 shows the variation in VAT revenues compared with the transfer required to match Luxembourg's contribution to the EU budget.

Figure 92 – Total VAT revenues vs. required transfer: LUXEMBOURG



[73] Address: www.statec.lu, internal documents provided by Mr David Soppelsa at Statec.

16.3 Excise Duty on Alcohol and Tobacco

Table 91 shows the level of revenues obtained by Luxembourg since 2000 through excise duties on alcohol and tobacco.

Table 91 – Alcohol and Tobacco Excise Duties revenues: LUXEMBOURG

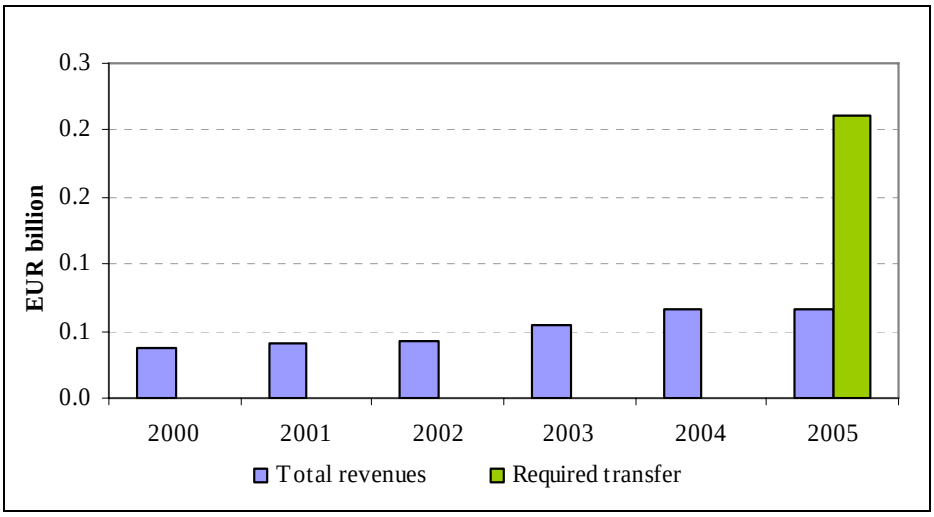
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	38	40	43	54	66	67
% annual change		6.7%	6.3%	26.4%	22.0%	1.8%
Alcohol	2	2	2	2	2	2
Tobacco	36	38	41	52	63	65

Source: Statec, National Statistics Office of Luxembourg ([74])

Revenues from these taxes showed fairly high annual growth rates, with the highest value (26.4%) recorded in 2003. The average annual growth rate was about 12.6%. The correlation with GDP per capita is also high, with a coefficient of about 95.8%.

The combined revenues obtained from these two types of excise duties are not sufficient to match Luxembourg's 2005 EU Budget contribution, as shown in Figure 93.

Figure 93 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: LUXEMBOURG



[74] Address: www.statec.lu, internal documents provided by Mr David Soppelsa at Statec.

16.4 Tax on Corporate Profits

Table 92 shows the level of revenues obtained by Luxembourg since 2000 through corporate profit tax.

Table 92 – Corporate Profit Tax revenues: LUXEMBOURG

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,533	1,651	1,926	1,892	1,571	1,753
% annual change		7.7%	16.7%	-1.7%	-17.0%	11.6%

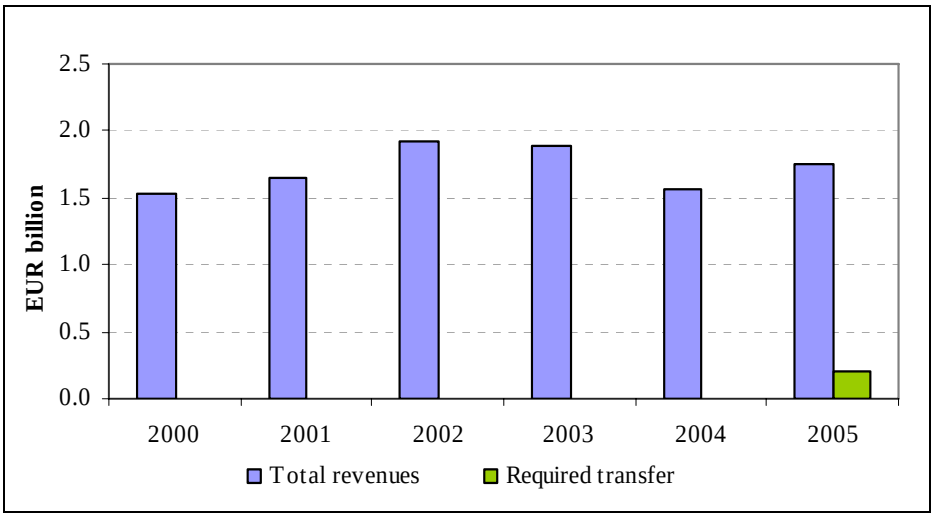
Source: Statec, National Statistics Office of Luxembourg ([75])

Revenues from corporate profit tax fluctuated somewhat during the time period under analysis. Revenues increased in 2001, 2002 as well as in 2005 and the strongest growth was seen in 2002 (16.7%). In 2003 and 2004, revenues fell with the most substantial fall seen in 2004 (-17.0%). According to the IMF, the fall in 2004 the financial sector was "still adjusting to the bursting of the global equity bubble. Also, relatively generous wage settlements and falling productivity caused a significant increase in unit labour costs that reduced corporate profitability and competitiveness, which has also been weakened by the appreciation of the Euro".([76])

The average annual growth rate was about 3.4% and the correlation with GDP per capita equal to about 19.4%.

In order to raise a level of revenues equal to Luxembourg's 2005 EU Budget contribution, about 12.0% of the revenues from this tax would need to be dedicated to the new EU tax, as shown in Figure 94.

Figure 94 – Total revenues from Corporate Profit Tax vs. required transfer: LUXEMBOURG



[75] Address: www.statec.lu, internal documents provided by Mr David Soppelsa at Statec.
[76] IMF (2004), *Public Information Notice: Article IV Consultation with Luxembourg – Final conclusions*. Available at: http://www.imf.org/external/np/sec/pn/2004/pn0449.htm

17 Hungary

17.1 Summary of results

Hungary's total GDP in 2005 was approximately EUR 89bn. According to the EU 2005 Budget, the level of annual funding to be provided by Hungary to the EU net of Traditional Resources and the UK rebate was about EUR 720m (equivalent to about 0.8% of its GDP).

Table 93 shows GDP (both in absolute and per capita terms) and consumer expenditure for Hungary since 2000.

Table 93 – GDP and Consumer Expenditure: HUNGARY

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	52,041	59,530	70,809	74,662	82,303	88,800
GDP per capita (EUR)	5,091	5,836	6,959	7,361	8,135	8,794
Consumer Expenditure per capita (EUR)	3,700	4,300	5,300	5,800	6,300	6,900

Source: Eurostat

On average, total GDP grew by about 11.4% per annum. GDP per capita grew by about 11.7% per annum. Consumption expenditure grew at approximately 13.4% on average per annum.

Table 94 summarises the results of our assessment of the candidate taxes for Hungary. A detailed analysis of each tax is presented in the remainder of this section.

Table 94 – Summary of the assessment of candidate taxes: HUNGARY

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	7.1%	99.1%	6.0%	-4.4%
Duty on motor fuel	7.2%	98.6%	40.2%	-12.7%
Duties on alcohol and tobacco	9.0%	97.3%	76.6%	7.7%
Corporate profit tax	8.3%	94.4%	42.7%	10.6%

Source: Deloitte calculation

The revenues from all the tax candidates considered have been growing during the period under analysis. Revenues from duties on alcohol and tobacco show the highest growth rate of 9.0%. The remaining taxes have grown at similar rates, with the lowest rate shown by VAT revenues (7.1%).

All revenue streams appear to be highly correlated with Hungary’s GDP per capita, which has also grown at a fast pace (11.7%). Additionally, revenues from all taxes are sufficient to finance the country’s recent EU budget contribution.

The required shares of VAT revenues and duties on motor fuel revenues are respectively 4.4 and 12.7 percentage points lower than the EU 27 average. Conversely, the required shares of revenues from duties on alcohol and tobacco and corporate profit tax are respectively 7.7 and 10.6 percentage points higher than the average shares across the European countries

17.2 VAT

Table 95 shows the level of VAT revenues obtained by Hungary since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports. It would need to be noted that the numbers are gross of VAT refunds.

Table 95 – VAT Revenues: HUNGARY

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	8,557	9,268	10,262	11,119	11,390	12,024
% annual change		8.3%	10.7%	8.4%	2.4%	5.6%
VAT on domestic exchanges	3,775	4,064	4,619	4,930	8,544	11,311
VAT on imports	4,782	5,204	5,643	6,189	2,846	713

Source: Hungarian Ministry of Finance ([77])

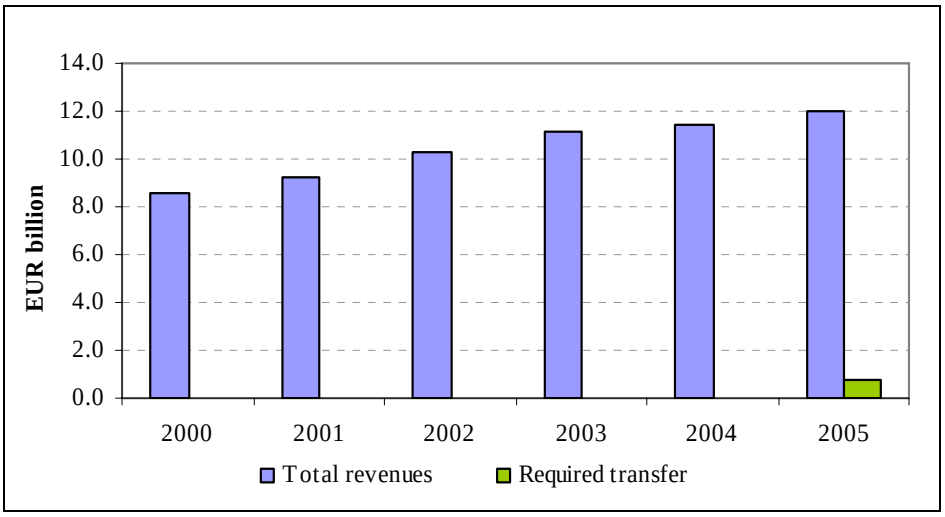
The average annual change in VAT revenues was 7.1%. Revenues from domestic VAT account on average for about 57.7% of total VAT revenues. Revenues from VAT are also highly correlated with movements in GDP per capita. The estimated correlation is equal to about 99.1%.

In order to raise a level of revenues equal to Hungary's 2005 EU Budget contribution, about 6.0% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were considered, then about 6.4% of these revenues would need to be transferred to the EU.

Assuming all VAT revenues are raised at the standard rate of 20.0%, the required rate for the new EU tax would be approximately 1.2%, while the modified MS VAT rate would equal 18.8%.

Figure 95 shows the variation of VAT revenues compared with the transfer required to match Hungary's contribution to the EU Budget.

Figure 95 – Total VAT revenues vs. required transfer: HUNGARY



[77] Address: http://www.meh.hu/english

17.3 Excise Duty on Motor Fuel

Table 96 shows the level of revenues obtained by Hungary since 2000 through an excise duty on motor fuel.

Table 96 – Motor Fuel Excise Duty revenues: HUNGARY

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,266	1,440	1,512	1,607	1,673	1,790
% annual change		13.7%	5.0%	6.3%	4.1%	7.0%

Source: Hungarian Ministry of Finance ([78])

The average annual change in revenues from motor fuel excise was 7.2%. Revenues increased steadily since 2000, with the growth rate peaking in 2001 (13.7%).

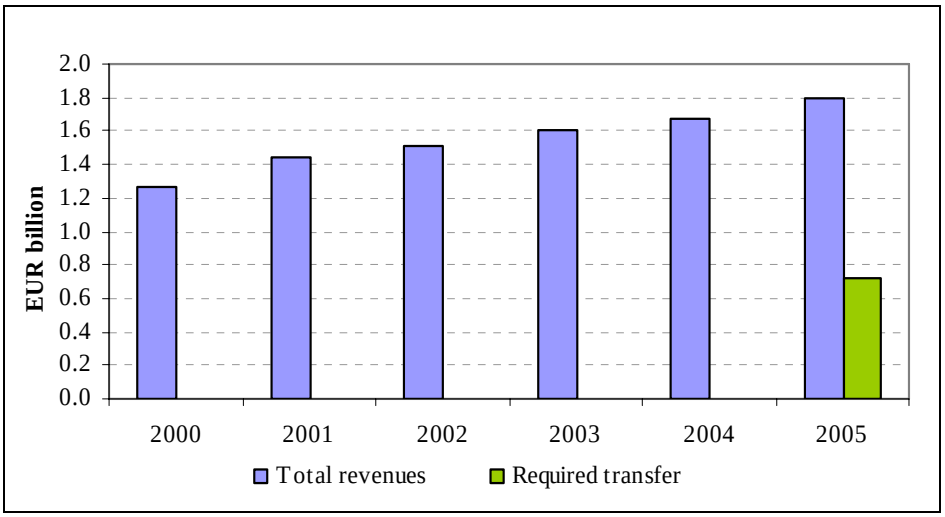
Revenues grew constantly over time and appear to be closely correlated with movements in GDP per capita, with a correlation factor of about 98.6%.

In order to raise a level of revenues equal to Hungary's 2005 EU Budget contribution, 40.2% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 435 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 175 per 1000 litres would need to be transferred to the EU.

Figure 96 shows the variation of total fuel excise revenues compared with the transfer required to match Hungary's contribution to the EU Budget.

Figure 96 – Total revenues from Motor Fuel Excise Duty vs. required transfer: HUNGARY



[78] Address: http://www.meh.hu/english

17.4 Excise Duty on Alcohol and Tobacco

Table 97 shows the level of revenues obtained by Hungary since 2000 through excise duties on alcohol and tobacco.

Table 97 – Alcohol and Tobacco Excise Duties revenues: HUNGARY

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	614	652	728	854	910	940
% annual change		6.2%	11.7%	17.3%	6.6%	3.3%
Alcohol	199	214	232	236	261	268
Tobacco	415	438	496	618	649	672

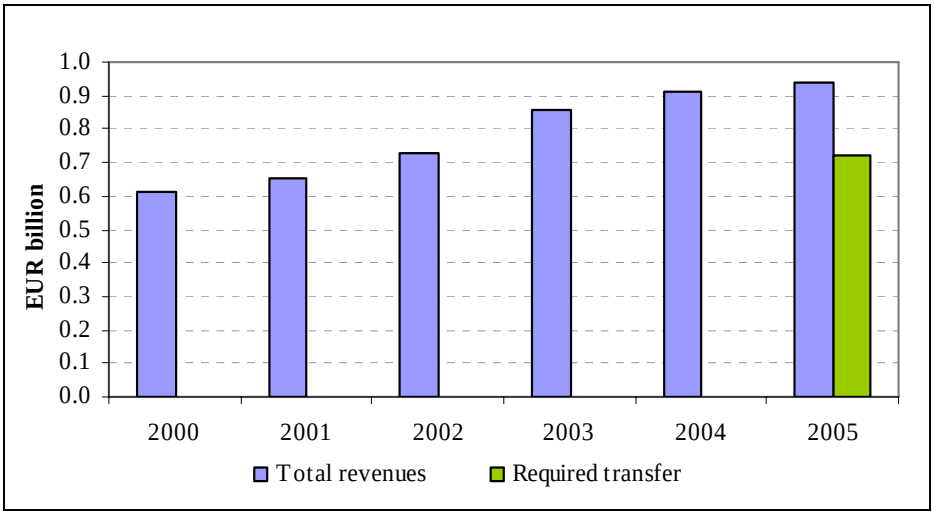
Source: Hungarian Ministry of Finance ([79])

Revenues from these taxes have shown fairly high annual growth rates, with the highest value of 17.3% recorded in 2003. During the time period under analysis, revenues from alcohol and tobacco excise duties increased steadily. The average annual growth rate has been about 9.0%.

The correlation with GDP per capita is high, with a coefficient of about 97.3%.

In order to raise a level of revenues equal to Hungary's 2005 EU Budget contribution, 76.6% of total VAT revenues would need to be dedicated to the new EU tax. This is shown in Figure 97.

Figure 97 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: HUNGARY



[79] Address: http://www.meh.hu/english

17.5 Tax on Corporate Profits

Table 98 shows the level of revenues obtained by Hungary since 2000 through corporate profit tax.

Table 98 – Corporate Profit Tax revenues: HUNGARY

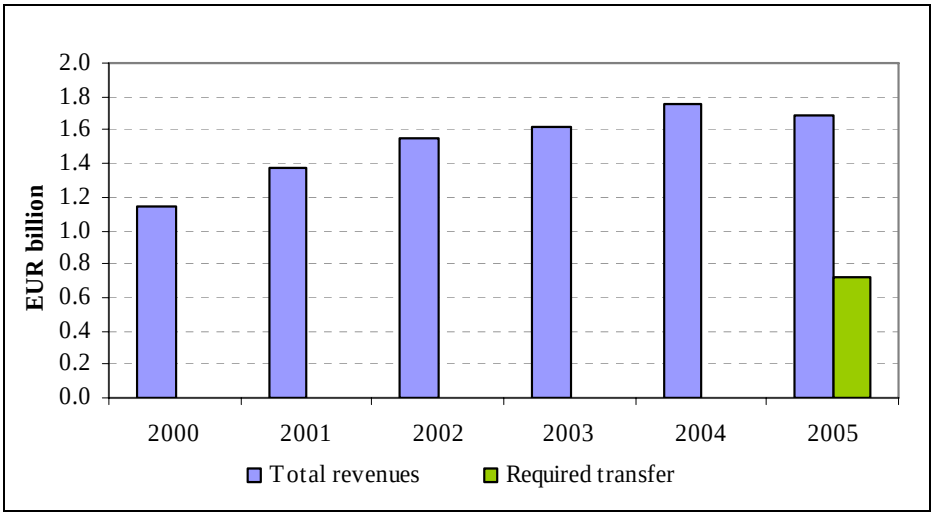
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,147	1,379	1,554	1,621	1,759	1,686
% annual change		20.2%	12.7%	4.3%	8.5%	-4.2%

Source: Hungarian Ministry of Finance ([80])

Revenues from these taxes showed fairly high annual growth rates until 2005, when revenues declined by 4.2%. Before that, the highest growth rate was observed in 2001 when revenues were growing at 20.2% per annum. During the period under analysis, the average annual growth rate was about 8.3%. The correlation coefficient with GDP per capita is about 94.4%.

In order to raise a level of revenues equal to Hungary's 2005 EU Budget contribution, about 42.7% of the revenues from this tax would need to be dedicated to the new EU tax. This is shown in Figure 98.

Figure 98 – Total revenues from Corporate Profit Tax vs. required transfer: HUNGARY



[80] Address: http://www.meh.hu/english

18 Malta

18.1 Summary of results

Malta's total GDP in 2005 was approximately EUR 4.6bn. According to the EU 2005 Budget, the level of annual funding to be provided by Malta to the EU net of Traditional Resources and the UK rebate was about EUR 38m (equivalent to about 0.8% of its GDP).

Table 99 shows GDP (both in absolute and per capita terms) and consumer expenditure for Malta since 2000.

Table 99 – GDP and Consumer Expenditure: MALTA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	4,216	4,301	4,437	4,350	4,367	4,554
GDP per capita (EUR)	11,090	10,988	11,245	10,949	10,920	11,309
Consumer Expenditure per capita (EUR)	9,100	9,500	9,400	9,300	9,600	9,900

Source: Eurostat

On average, total GDP grew by about 1.6% per annum. GDP per capita grew by about 0.4% per annum. Consumption expenditure grew at approximately 1.7% on average per annum.

Table 100 summarises the results of our assessment of the candidate taxes for Malta. A detailed analysis of each tax is presented in the remainder of this section.

Table 100 – Summary of the assessment of candidate taxes: MALTA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	9.9%	49.1%	10.2%	-0.2%
Duty on motor fuel	2.7%	48.4%	61.3%	8.4%
Duties on alcohol and tobacco	10.7%	14.5%	51.9%	-17.0%
Corporate profit tax	10.3%	1.7%	20.9%	-11.2%

Source: Deloitte calculation

Revenues from all the tax candidates have been growing during the time period under analysis. Revenues from VAT, duties on alcohol and tobacco and corporate profit tax all show high average annual growth rates during this period. The revenues from excise duty on motor fuel experienced the lowest growth of the four taxes at 2.7% per annum.

None of the revenue streams seems to be highly correlated with the country's GDP per capita, despite all of the taxes showing a positive correlation coefficient.

All candidate taxes generate revenues that are sufficient to match Malta's recent contribution to the EU Budget. The required share of VAT revenues is only 0.2 percentage points lower than the EU 27 average, while the required share of revenues from duties on motor fuel is 8.4 percentage points higher than the average. Conversely, the required shares of duties on alcohol and tobacco revenues and corporate profit tax revenues are respectively 17.0 and 11.2 percentage points lower than the average shares across the EU 27 countries.

18.2 VAT

Table 101 shows the level of VAT revenues obtained by Malta since 2000. The National Statistics Office of Malta, the source of the information used for this analysis, was unable to provide data on the breakdown of VAT revenues into its components for the last two years of the analysis period at the time of writing ([81]).

Table 101 – VAT Revenues: MALTA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	239	259	298	273	326	376
% annual change		8.1%	15.1%	-8.5%	19.5%	15.3%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: National Statistics Office of Malta ([82])

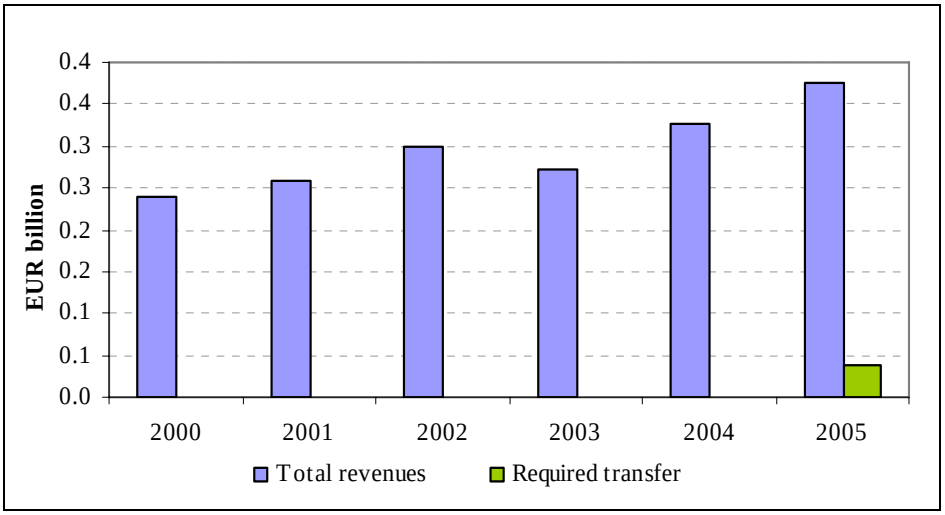
The average annual change in VAT revenues was 9.9%. Revenues from VAT appeared to be positively related to GDP per capita, with an estimated correlation coefficient equal to 49.1%.

In order to raise a level of revenues equal to Malta's 2005 EU Budget contribution, about 10.2% of the total VAT revenues would need to be dedicated to the new EU tax.

Assuming that all VAT revenues are raised at the standard rate of 18.0%, the required rate for the new EU tax would be approximately 1.8%. This would result in a modified MS VAT rate equal to 16.2%.

Figure 99 shows the variation in VAT revenues compared with the transfer required to match Malta's recent contribution to the EU Budget.

Figure 99 – Total VAT revenues vs. required transfer: MALTA



[81] Address: www.nso.gov.mt, Confirmed by Mr Robert Mizzi at NSO, robert.mizzi@gov.mt
[82] Address: www.nso.gov.mt, Internal documents provided to us by Mr Robert Mizzi at NSO, robert.mizzi@gov.mt

18.3 Excise Duty on Motor Fuel

Table 102 shows the level of revenues obtained by Malta since 2000 through an excise duty on motor fuel.

Table 102 – Motor Fuel Excise Duty revenues: MALTA

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	55	62	59	56	56	62
% annual change		12.3%	-5.5%	-4.6%	0.8%	10.6%

Source: National Statistics Office of Malta ([83])

The average annual change in revenues from motor fuel excise duties was 2.7%. The annual changes in revenues fluctuated during this time period. Following the high rate of growth in 2001, the two subsequent years showed falling revenues. Since 2004, the revenues have been increasing, with an observed peak in the growth rate in 2005 (10.6%).

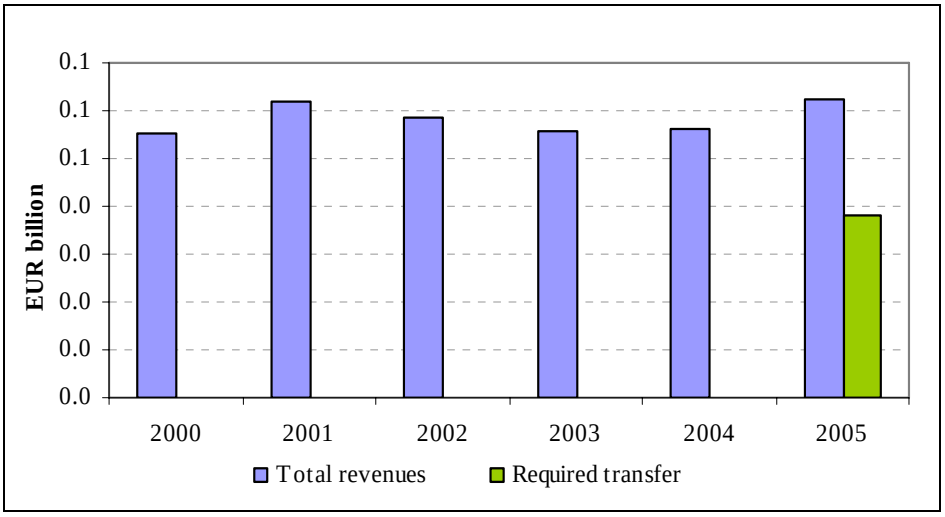
The correlation with GDP per capita is positive with a correlation coefficient of 48.4%.

In order to raise a level of revenues equal to the country's 2005 EU Budget contribution, a share of 61.3% of total revenues must be dedicated to the new EU tax.

Given that the average motor fuel excise duty in Malta is approximately EUR 499 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 306 per 1000 litres would need to be transferred to the EU.

Figure 100 shows the variation in total fuel excise revenues compared with the transfer required to match Malta's contribution to the EU Budget.

Figure 100 – Total revenues from Motor Fuel Excise Duty vs. required transfer: MALTA



[83] Address: www.nso.gov.mt, Internal documents provided to us by Mr Robert Mizzi at NSO, robert.mizzi@gov.mt

18.4 Excise Duty on Alcohol and Tobacco

Table 103 shows the level of revenues obtained by Malta since 2000 through excise duties on alcohol and tobacco.

Table 103 – Alcohol and Tobacco Excise Duties revenues: MALTA

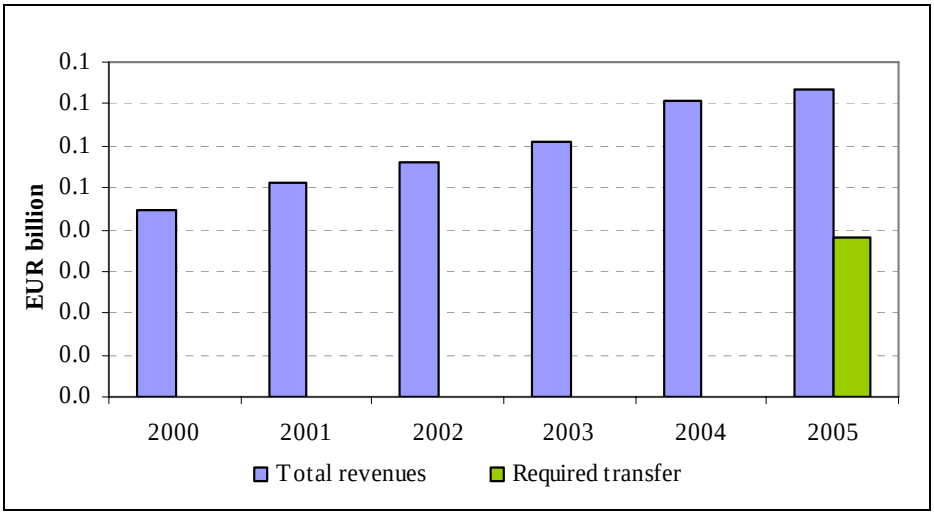
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	44	51	56	61	70	74
% annual change		15.6%	8.9%	8.5%	16.0%	4.3%
Alcohol	8	9	10	10	11	10
Tobacco	37	42	46	50	60	63

Source: National Statistics Office of Malta ([84])

Revenues from these taxes showed relatively high annual growth rates, with the highest values observed in 2001 and 2004 at 15.6% and at 16.0% respectively. During this time period, the average annual growth rate was about 10.7%. The correlation with GDP per capita has been relatively low, yet positive, with an estimated correlation coefficient equal to 14.5%.

In order to match the country's latest EU Budget contribution, 51.9% of the total revenues of these taxes would have to be dedicated to the new EU tax. This is shown in Figure 101.

Figure 101 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: MALTA



[84] Address: www.nso.gov.mt, Internal documents provided to us by Mr Robert Mizzi at NSO, robert.mizzi@gov.mt

18.5 Tax on Corporate Profits

Table 104 shows the level of revenues obtained by Malta since 2000 through corporate profit tax.

Table 104 – Corporate Profit Tax revenues: MALTA

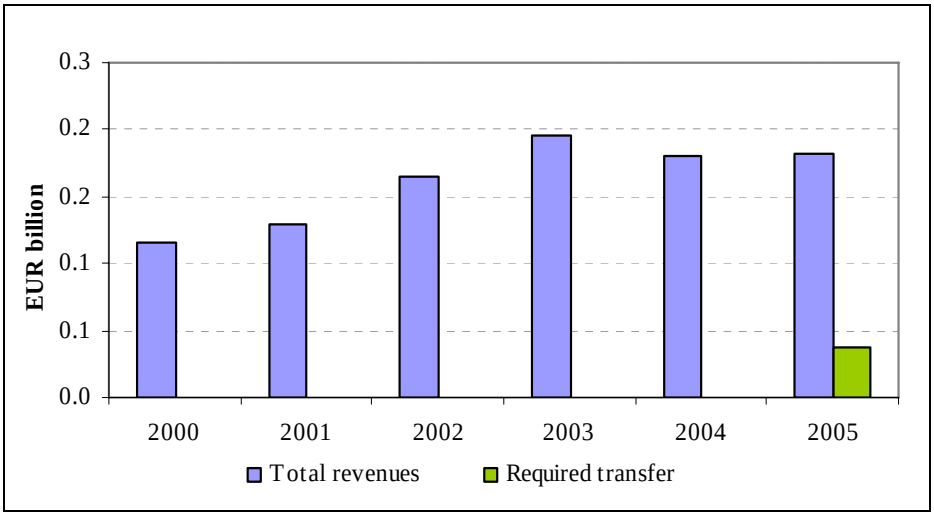
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	115	130	165	195	181	183
% annual change		12.8%	27.2%	17.8%	-7.1%	0.9%

Source: National Statistics Office of Malta ([85])

Between 2001 and 2003, revenues from corporate profit tax showed high annual growth rates, with a peak observed in 2002 of 27.2%. In 2004 revenues declined, but showed an increasing growth rate again in 2005. The decline in 2004 was probably due to a general slowdown of the Maltese economy, caused by an adverse external environment and domestic factors. ([86]) The average annual growth rate during this period was 10.7%. Revenues have a very low positive correlation with GDP per capita; the estimated correlation coefficient is equal to 1.7%.

In order to raise a level of revenues equal to Malta's 2005 EU Budget contribution, about 20.9% of the revenues from this tax would need to be dedicated to the new EU tax. This is depicted in Figure 102.

Figure 102 – Total revenues from Corporate Profit Tax vs. required transfer: MALTA



[85] Address: www.nso.gov.mt, Internal documents provided to us by Mr Robert Mizzi at NSO, robert.mizzi@gov.mt
[86] IMF (2005), *Article IV Consultation (Staff report)*. Available at: http://www.imf.org/external/pubs/ft/scr/2005/cr05381.pdf

19 Netherlands

19.1 Summary of results

The Netherlands's total GDP in 2005 was approximately EUR 505bn. According to the EU 2005 Budget, the level of annual funding to be provided by the Netherlands to the EU net of Traditional Resources and the UK rebate was about EUR 4,463m (equivalent to about 0.9% of its GDP).

Table 105 shows GDP (both in absolute and per capita terms) and consumer expenditure for the Netherlands since 2000.

Table 105 – GDP and Consumer Expenditure: NETHERLANDS

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	417,960	447,731	465,214	476,945	489,854	505,646
GDP per capita (EUR)	26,346	28,006	28,886	29,455	30,130	31,011
Consumer Expenditure per capita (EUR)	19,000	20,300	21,300	21,900	22,100	22,600

Source: Eurostat

On average, total GDP grew by about 3.9% per annum. GDP per capita grew by about 3.3% per annum. Consumption expenditure grew at approximately 3.6% on average per annum.

Table 106 summarises the results of our assessment of the candidate taxes for the Netherlands. A detailed analysis of each tax is presented in the remainder of this section.

Table 106 – Summary of the assessment of candidate taxes: NETHERLANDS

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	5.1%	99.4%	12.1%	1.7%
Duty on motor fuel	4.0%	90.2%	not sufficient	
Duties on alcohol and tobacco	3.9%	90.9%	not sufficient	
Corporate profit tax	1.1%	-28.3%	26.1%	-6.0%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing during the period under analysis. VAT revenues show the highest growth rate, while the revenues from corporate profit tax have grown only 1.1% per annum on average.

All revenues streams appear to be correlated with the country's GDP per capita, with the exception of the revenues from corporate profit tax. VAT revenues are highly correlated.

However, the revenues from the excise duties considered do not appear to provide a level of revenues sufficient to match the Netherlands' recent contribution to the EU budget.

The share of VAT revenues required is 1.7 percentage points higher than the average required share of VAT revenues across the EU 27 countries. The required share of revenues from corporate profit tax is conversely 6.0 percentage points lower than the European average.

19.2 VAT

Table 107 shows the level of VAT revenues obtained by the Netherlands since 2000. The Dutch National Statistical Office, the source of the information used for this analysis, was unable to provide data on the breakdown of VAT revenues into its domestic and non-domestic components.

Table 107 – VAT Revenues: NETHERLANDS

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	28,849	32,509	33,493	34,754	35,811	36,950
% annual change		12.7%	3.0%	3.8%	3.0%	3.2%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: Centraal Bureau voor de Statistiek ([87])

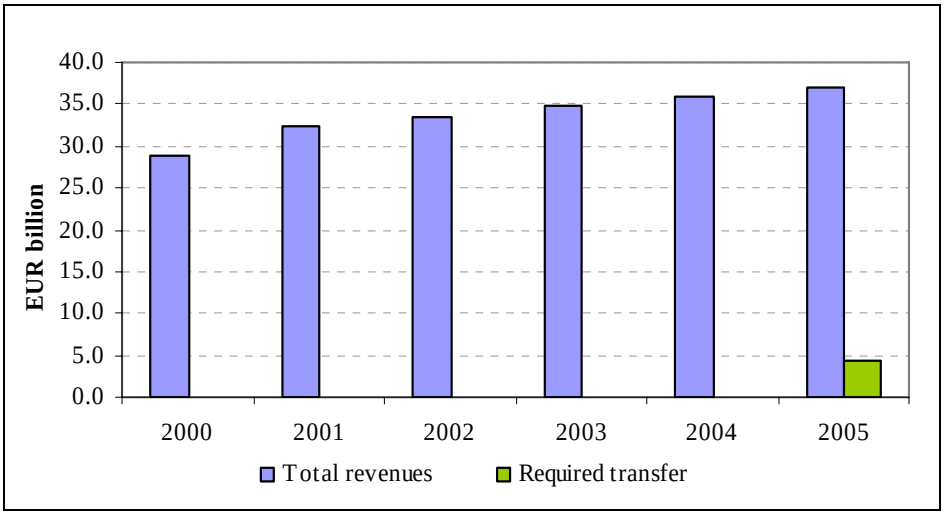
The revenues from VAT in the Netherlands grew at an almost constant rate since 2001, in line with the country's GDP per capita. In 2001, however, a larger annual increase of about 12.7% was recorded. The correlation with GDP per capita is very high, with an estimated correlation coefficient of about 99.4%.

In order to raise a level of revenues equal to the Netherlands' 2005 EU budget contribution, about 12.1% total VAT revenues would need to be dedicated to the new EU tax.

Assuming that all VAT revenues are raised at the standard rate of 19%, the required rate for the new EU tax would be approximately 2.3%, while the modified MS VAT rate would be 16.7%.

Figure 103 shows the variation of VAT revenues compared with the transfer required to match the Netherlands' contribution to the EU budget.

Figure 103 – Total VAT revenues vs. required transfer: NETHERLANDS



[87] Centraal Bureau voor de Statistiek (http://statline.cbs.nl)

19.3 Excise Duty on Motor Fuel

Table 108 shows the level of revenues obtained by Netherlands since 2000 through an excise duty on motor fuel.

Table 108 – Motor Fuel Excise Duty revenues: NETHERLANDS

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,140	2,076	2,317	2,446	2,557	2,585
% annual change		-3.0%	11.6%	5.6%	4.5%	1.1%

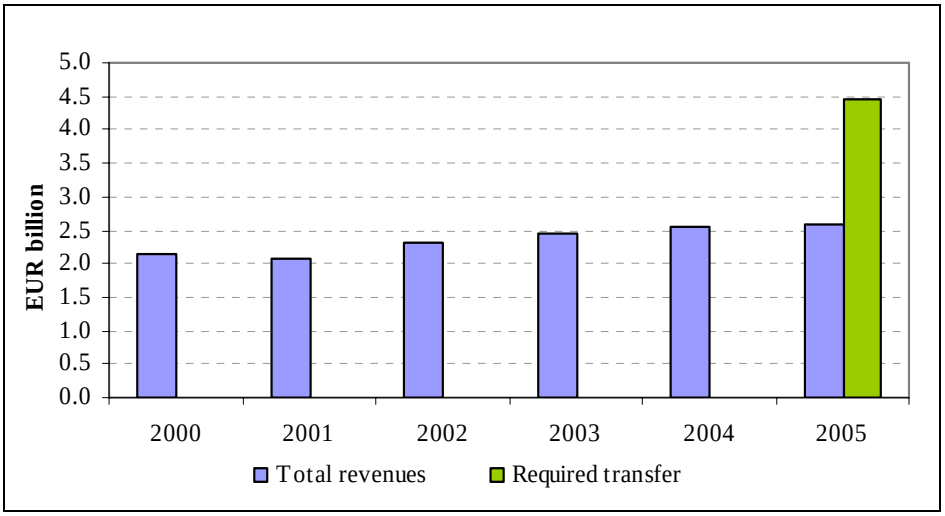
Source: Centraal Bureau voor de Statistiek ([88])

The average annual change in revenues from motor fuel excise duties was 4.0%. Revenues grew for most of the period under analysis, with the exception of a decline in 2001. However, this was offset by an increase of about 11.6% the following year.

The correlation of the revenues from this tax with GDP per capita is high, with a correlation coefficient of about 90.2%.

The revenues obtained from this tax, however, are not sufficient to match the Netherlands' 2005 EU Budget contribution, as shown in Figure 104.

Figure 104 – Total revenues from Motor Fuel Excise Duty vs. required transfer: NETHERLANDS



[88] Centraal Bureau voor de Statistiek, *ibid.*

19.4 Excise Duty on Alcohol and Tobacco

Table 109 shows the level of revenues obtained by the Netherlands since 2000 through excise duties on alcohol and tobacco.

Table 109 – Alcohol and Tobacco Excise Duties revenues: NETHERLANDS

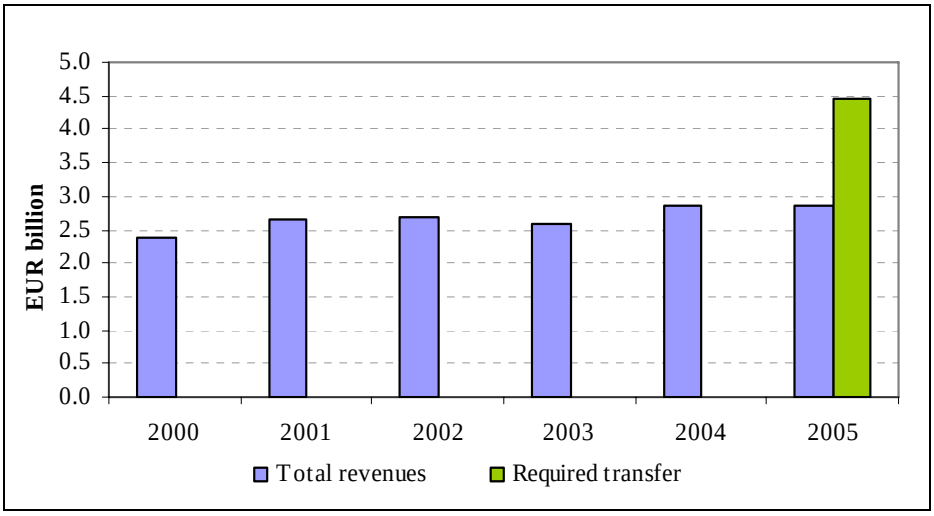
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,388	2,657	2,672	2,595	2,860	2,870
% annual change		11.3%	0.6%	-2.9%	10.2%	0.3%
Alcohol	798	840	953	845	917	870
Tobacco	1,590	1,817	1,719	1,750	1,943	2,000

Source: Centraal Bureau voor de Statistiek ([89])

Revenues from these taxes showed fluctuating trend, alternating years of high growth (2001 and 2004), with years of zero growth or decline (2003). Overall, the average annual growth rate was about 3.9%. The correlation with GDP per capita is about 90.9%.

The combined revenues obtained from these two types of excise duties are not sufficient to match the Netherlands' 2005 EU budget contribution, as shown in Figure 105.

Figure 105 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: NETHERLANDS



[89] Centraal Bureau voor de Statistiek, *ibid.*

19.5 Tax on Corporate Profits

Table 110 shows the level of revenues obtained by the Netherlands since 2000 through corporate profit tax.

Table 110 – Corporate Profit Tax revenues: NETHERLANDS

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	16,736	17,580	15,394	13,392	14,994	17,068
% annual change		5.0%	-12.4%	-13.0%	12.0%	13.8%

Source: Centraal Bureau voor de Statistiek ([90])

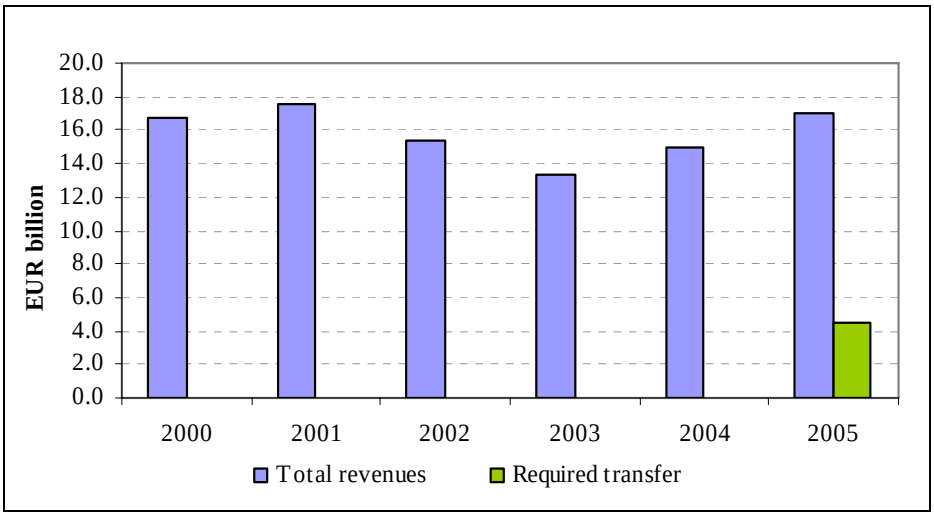
The revenues from corporate profit tax show a fluctuating trend during the analysis period. After an increase of about 5.0% in 2001, revenues declined in both 2002 and 2003. This decline in revenue was probably due to a slowdown of the Dutch economy, following a period of expansion in the late 1990s ([91]). However, this decline was offset by increases in 2004 and 2005. As a result, the average annual growth rate was about 1.1%.

Revenues from this tax are negatively correlated with GDP per capita. The estimated correlation coefficient is about -28.3%.

In order to raise a level of revenues equal to the Netherlands' 2005 EU budget contribution, about 26.1% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 55 shows the variation in corporate profit tax revenues compared with the transfer required to match the Netherlands' recent contribution to the EU Budget.

Figure 106 – Total revenues from Corporate Profit Tax vs. required transfer: NETHERLANDS



[90] Centraal Bureau voor de Statistiek, *ibid.*
[91] IMF (2003), *Article IV Consultation.* Available at: http://www.imf.org/external/pubs/ft/scr/2003/cr03239.pdf

20 Austria

20.1 Summary of results

Austria's total GDP in 2005 was approximately EUR 245bn. According to the EU 2005 Budget, the level of annual funding to be provided by Austria to the EU net of Traditional Resources and the UK rebate was about EUR 1.956m (equivalent to about 0.8% of its GDP).

Table 111 shows GDP (both in absolute and per capita terms) and consumer expenditure for Austria since 2000.

Table 111 – GDP and Consumer Expenditure: AUSTRIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	210,392	215,878	220,841	226,243	235,819	245,103
GDP per capita (EUR)	26,292	26,914	27,382	27,924	28,970	29,867
Consumer Expenditure per capita (EUR)	19,700	20,100	20,400	20,900	21,500	22,100

Source: Eurostat

On average, total GDP grew by about 3.1% per annum. GDP per capita grew by about 2.6% per annum. Consumption expenditure grew at approximately 2.3% on average per annum.

Table 112 summarises the results of our assessment of the candidate taxes for Austria. A detailed analysis of each tax is presented in the remainder of this section.

Table 112 – Summary of the assessment of candidate taxes: AUSTRIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	2.9%	98.2%	10.0%	-0.4%
Duty on motor fuel	5.6%	95.6%	54.9%	2.0%
Duties on alcohol and tobacco	2.0%	82.7%	not sufficient	
Corporate profit tax	9.1%	17.9%	385%	6.4%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing during the period under analysis. Corporate profit tax revenues show the highest rate of growth, although their trend fluctuated, leading to a low correlation with GDP per capita.

The revenues from all other taxes were highly correlated with GDP per capita, with VAT showing the highest correlation factor.

Only the excise duties on alcohol and tobacco do not provide, on their own, revenues sufficient to match Austria's recent contribution to the EU budget.

The required share of VAT revenues is only 0.4 percentage points lower than the average share required across the EU 27 countries. The required shares of revenues from duties on motor fuel and corporate profit tax are respectively 2.0 and 6.4 percentage points higher than the European average.

20.2 VAT

Table 113 shows the level of VAT revenues obtained by Austria since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports. The Austria Statistical Office was unable to provide data on the breakdown of VAT revenues into its components for the last two years of the analysis period ([92]). We have therefore estimated these values on the basis of the breakdown for the previous years.

Table 113 – VAT Revenues: AUSTRIA

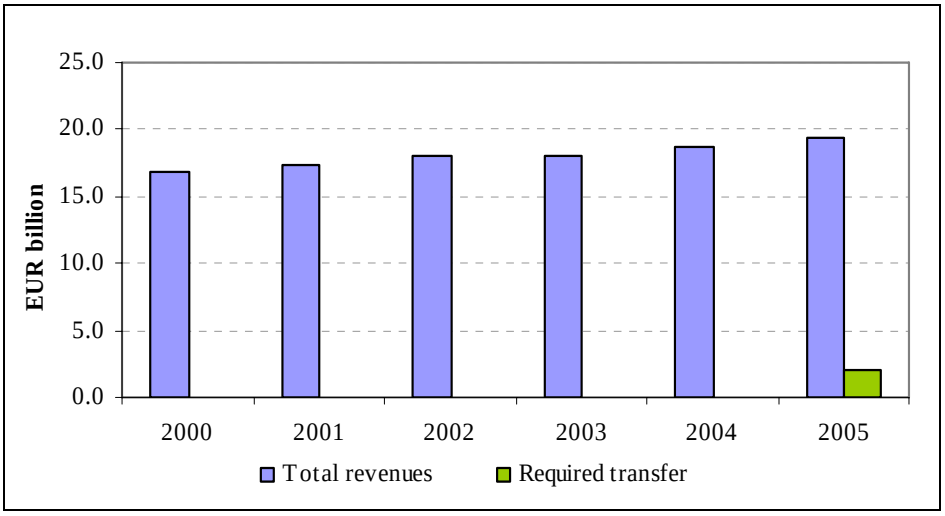
VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	16,894	17,301	18,012	17,944	18,630	19,466
% annual change		2.4%	4.1%	-0.4%	3.8%	4.5%
VAT on domestic exchanges	10,002	10,634	10,496	10,914	*11,167e*	*11,668e*
VAT on imports	6,892	6,667	7,515	7,030	*7,463e*	*7,798e*

Source: Austrian Statistical Office ([93])

The average annual change in VAT revenues was 2.9%. Revenues grew in all years of the period under analysis, with the exception on 2003, when they were almost constant. Revenues from domestic VAT account on average for about 60% of total VAT revenues. The growth of VAT revenues was highly correlated with the growth of GDP per capita, with an estimated correlation factor of about 98.2%.

In order to raise a level of revenues equal to Austria's 2005 EU Budget contribution, about 10.0% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were to be considered, then about 16.8% of these revenues would need to be transferred to the EU. Assuming that all VAT revenues are raised at the standard rate of 20%, the required rate for the new EU tax would be approximately 2.0%, while the modified MS VAT rate would be 18%. Figure 107 shows the variation of VAT revenues compared with the transfer required to match Austria's recent contribution to the EU Budget.

Figure 107 – Total VAT revenues vs. required transfer: AUSTRIA



[92] Confirmed by Mr. Johannes Biricz at the Austrian Statistical Office
[93] Austrian Statistical Office (http://www.statistik.at/)

20.3 Excise Duty on Motor Fuel

Table 114 shows the level of revenues obtained by Austria since 2000 through an excise duty on motor fuel.

Table 114 – Motor Fuel Excise Duty revenues: AUSTRIA

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,726	2,880	3,109	3,310	3,594	3,565
% annual change		5.7%	7.9%	6.5%	8.6%	-0.8%

Source: Austrian Statistical Office ([94])

The average annual change in revenues from motor fuel excise was 5.6%. The growth rate was high for most of the period under analysis. Only in 2005 were the revenues almost the same as the previous year.

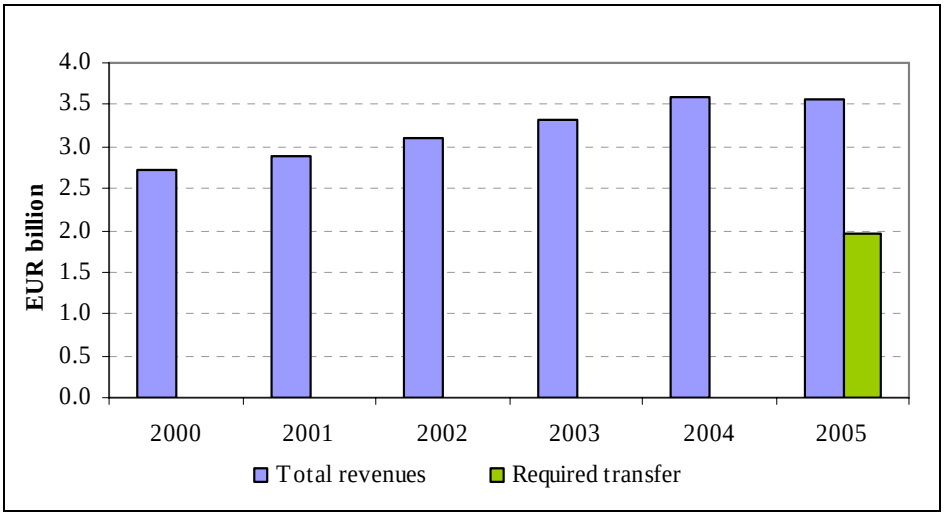
Revenues therefore have grown over time and appear to be closely correlated with movements in GDP per capita, with a correlation factor of about 95.6%.

In order to raise a level of revenues equal to Austria's 2005 EU Budget contribution, about 54.9% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 461 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 253 per 1000 litres would need to be transferred to the EU.

Figure 108 shows the variation in total fuel excise revenues compared with the transfer required to match Austria's 2005 contribution to the EU budget.

Figure 108 – Total revenues from Motor Fuel Excise Duty vs. required transfer: AUSTRIA



[94] Austrian Statistical Office, *ibid.*

20.4 Excise Duty on Alcohol and Tobacco

Table 115 shows the level of revenues obtained by Austria since 2000 through excise duties on alcohol and tobacco.

Table 115 – Alcohol and Tobacco Excise Duties revenues: AUSTRIA

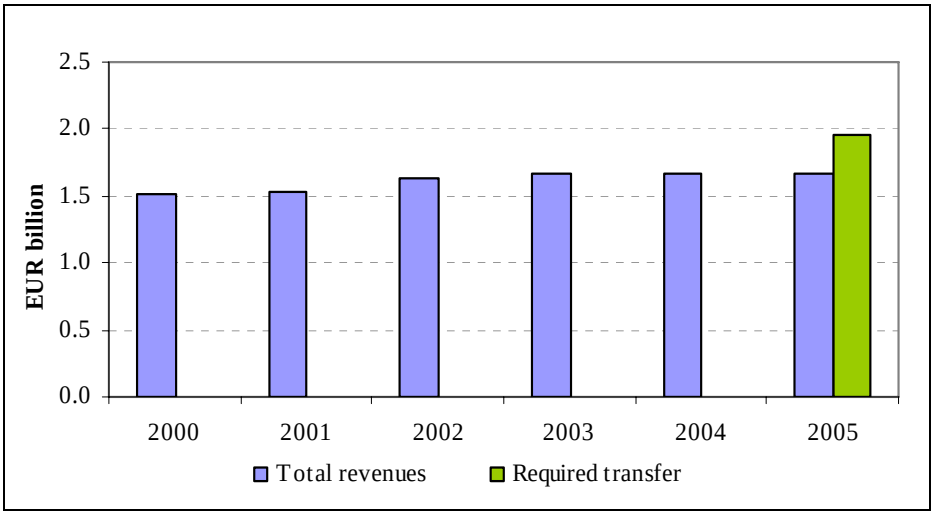
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,513	1,530	1,632	1,672	1,664	1,670
% annual change		1.1%	6.6%	2.5%	-0.5%	0.4%
Alcohol	317	296	335	344	346	331
Tobacco	1,197	1,234	1,297	1,329	1,318	1,340

Source: Austrian Statistical Office ([95])

Revenues from these taxes grew for the first part of the period under analysis, but have stabilised in 2004 and 2005. The average annual growth rate was about 2.0%. The correlation with GDP per capita is lower than for VAT and excise duty on motor fuel, with a correlation factor of about 82.7%.

The combined revenues obtained from these two types of excise duties are not sufficient to match Austria's 2005 EU budget contribution, as shown in Figure 109.

Figure 109 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: AUSTRIA



[95] Austrian Statistical Office, *ibid.*

20.5 Tax on Corporate Profits

Table 116 shows the level of revenues obtained by Austria since 2000 through Corporate Profit tax.

Table 116 – Corporate Profit Tax revenues: AUSTRIA

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	3,865	6,235	4,559	4,579	4,963	5,082
% annual change		61.3%	-26.9%	0.4%	8.4%	2.4%

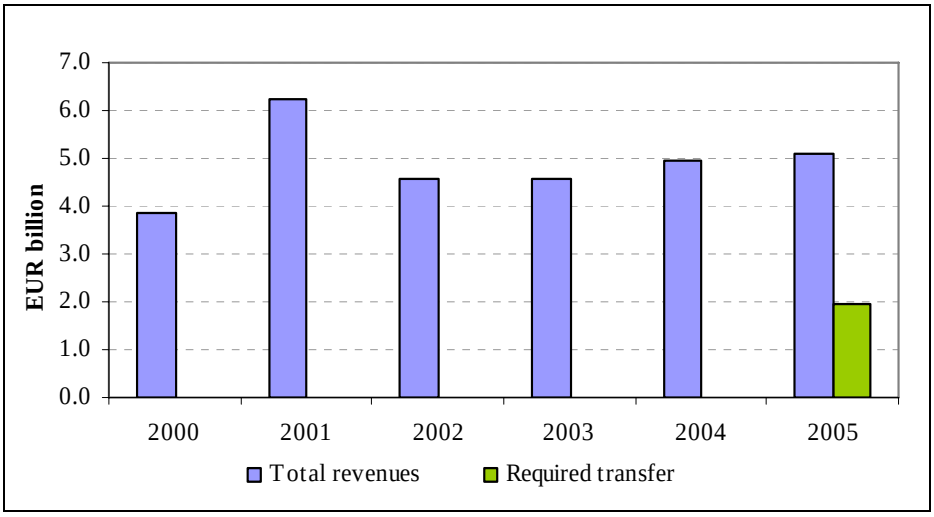
Source: Austrian Statistical Office ([96])

Revenues from corporate profit tax fluctuated in the first part of the period under analysis. After one year with almost no growth (2003), revenues started growing again in 2004 (8.4%) and 2005 (2.4%). Overall, the average annual growth rate was about 9.1%, but the fluctuating trend of the first year implies a very low correlation with GDP per capita, with a correlation factor of about 17.9%.

In order to raise a level of revenues equal to Austria's 2005 EU budget contribution, about 38.5% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 110 shows the variation in corporate profit tax revenues compared with the transfer required to match Austria's 2005 contribution to the EU budget.

Figure 110 – Total revenues from Corporate Profit Tax vs. required transfer: AUSTRIA



[96] Austrian Statistical Office, *ibid.*

21 Poland

21.1 Summary of results

Poland's total GDP in 2005 was approximately EUR 244bn. According to the EU 2005 Budget, the level of annual funding to be provided by Poland to the EU net of Traditional Resources and the UK rebate is equal to about EUR 2,055m (equivalent to about 0.8% of its GDP).

Table 117 shows GDP (both in absolute and per capita terms) and consumer expenditure for Poland since 2000.

Table 117 – GDP and Consumer Expenditure: POLAND

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	185,775	212,196	209,431	191,408	203,952	243,765
GDP per capita (EUR)	4,806	5,547	5,476	5,008	5,340	6,386
Consumer Expenditure per capita (EUR)	4,000	4,600	4,600	4,200	4,400	5,200

Source: Eurostat

On average, total GDP grew by about 6.1% per annum. GDP per capita grew by about 6.4% per annum. Consumption expenditure grew at approximately 5.8% on average per annum.

Table 118 summarises the results of our assessment of the candidate taxes for Poland. A detailed analysis of each tax is presented in the remainder of this section.

Table 118 – Summary of the assessment of candidate taxes: POLAND

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	8.0%	78.9%	10.9%	0.5%
Duty on motor fuel	9.5%	79.5%	42.0%	-10.9%
Duties on alcohol and tobacco	6.1%	67.5%	48.9%	-20.0%
Corporate profit tax	-0.2%	-2.5%	52.3%	20.2%

Source: Deloitte calculation

Apart from revenues from corporate profit tax, the revenues from all the other tax candidates have been growing during the period under analysis. Revenues from excise duty on motor fuel show the highest rate of growth of 9.5% on average during this period, while revenues from corporate profit tax show a decline of 0.2%.

VAT, duty on motor fuel and duties on alcohol and tobacco show positive correlation with GDP per capita, while corporate profit tax appears to be negatively correlated with GDP per capita.

All tax candidates have sufficient revenues to match Poland’s recent contribution to the EU Budget.

The share of VAT revenues required is almost in line with the European average (only 0.5 percentage points higher). The required shares of revenues from duties on motor fuel and duties on alcohol and tobacco are respectively 10.9 and 20.0 percentage points lower than the average across the EU 27 countries. Conversely, the required share of corporate profit tax revenues is 20.2 percentage points higher than the European average.

21.2 VAT

Table 119 shows the level of VAT revenues obtained by Poland since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 119 – VAT Revenues: POLAND

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	12,889	13,174	14,306	15,033	15,507	18,779
% annual change		2.2%	8.6%	5.1%	3.2%	21.1%
VAT on domestic exchanges	3,466	4,060	4,563	3,349	7,838	14,578
VAT on imports	9,423	9,114	9,744	11,684	7,669	4,201

Source: Polish Ministry of Finance ([97])

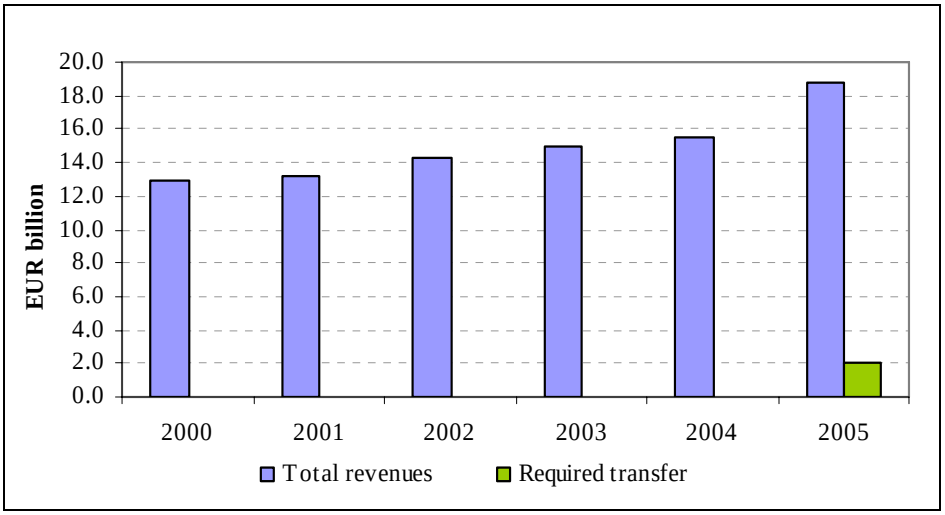
The average annual change in VAT revenues was 8.0%. Revenues from domestic VAT on average accounted for about 40.0% of total VAT revenues. Revenues from VAT were growing over time and were also correlated positively with GDP per capita. The estimated correlation coefficient is equal to 78.9%.

In order to raise a level of revenues equal to Poland's 2005 EU Budget contribution, about 10.9% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were to be considered then about 14.1% of these revenues would need to be transferred to the EU.

Given the standard VAT rate of 22.0% in Poland, the required rate for the new EU tax would approximately be 2.4%. This would result in a modified MS VAT rate of 19.6%.

Figure 111 shows the variation of VAT revenues compared wit the transfer required to match Poland's contribution to the EU budget.

Figure 111 – Total VAT revenues vs. required transfer: POLAND



[97] Government publications, 2000-2005 from Polish Ministry of Finance, address: http://www.mf.gov.pl/index.php?wysw=2&sgl=2&dzial=36

21.3 Excise Duty on Motor Fuel

Table 120 shows the level of revenues obtained by Poland since 2000 through an excise duty on motor fuel.

Table 120 – Motor Fuel Excise Duty revenues: POLAND

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	3,132	3,291	3,442	3,666	4,079	4,891
% annual change		5.1%	4.6%	6.5%	11.3%	19.9%

Source: Polish Ministry of Finance ([98])

The average annual change in revenues from motor fuel excise duties was 9.5%. The growth rate increased steadily since 2002 with a peak of 19.9% in the last year of the observation period.

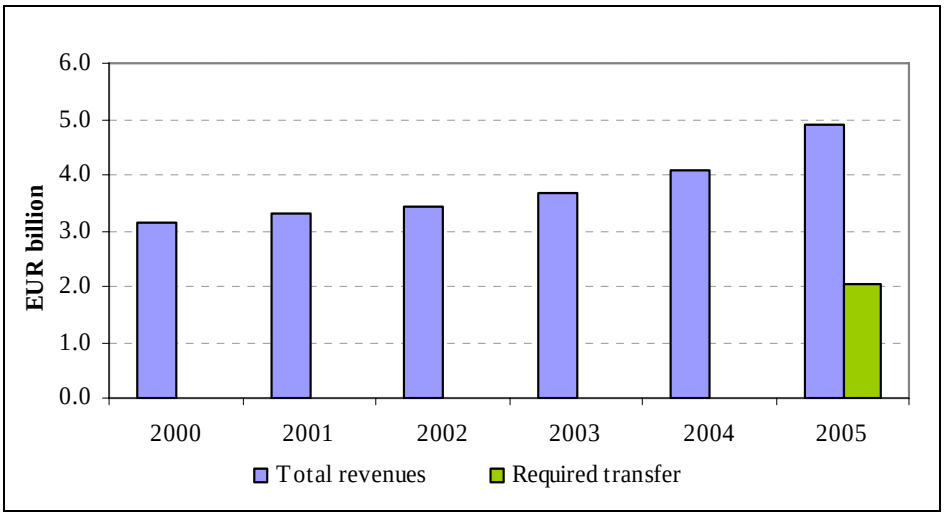
The correlation with GDP per capita is positive, with an estimated correlation coefficient of 79.5%.

In order to raise a level of revenues equal to Poland's 2005 EU Budget contribution, 42.0% of the total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 411 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 173 per 1000 litres would need to be transferred to the EU.

Figure 112 shows the variation in total fuel excise revenues compared with the transfer required to match Poland's 2005 contribution to the EU Budget.

Figure 112 – Total revenues from Motor Fuel Excise Duty vs. required transfer: POLAND



[98] Government publications, 2000-2005 from Polish Ministry of Finance, address: http://www.mf.gov.pl/index.php?wysw=2&sgl=2&dzial=36

21.4 Excise Duty on Alcohol and Tobacco

Table 121 shows the level of revenues obtained by Poland since 2000 through excise duties on alcohol and tobacco.

Table 121 – Alcohol and Tobacco Excise Duties revenues: POLAND

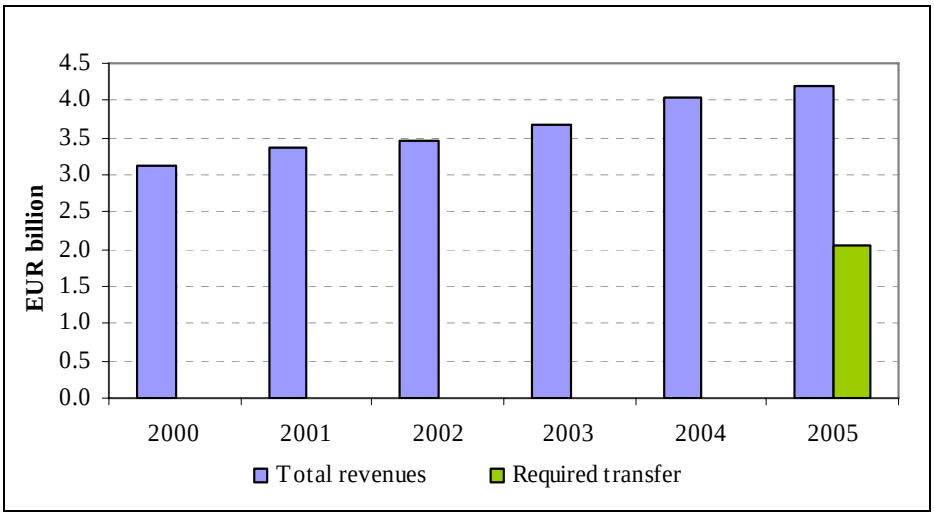
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	3,124	3,371	3,464	3,683	4,047	4,202
% annual change		7.9%	2.8%	6.3%	9.9%	3.8%
Alcohol	1,541	1,552	1,490	1,577	1,737	1,756
Tobacco	1,583	1,819	1,974	2,106	2,310	2,446

Source: Polish Ministry of Finance ([99])

Revenues from these taxes showed fairly high annual growth rates, with the highest value (9.9%) recorded in 2004. The average annual growth rate has been about 6.1%. The correlation with GDP per capita is positive with a correlation coefficient equal of 67.5%.

In order to raise a level of revenues equal to Poland's 2005 EU Budget contribution, 48.9% of the combined revenues from alcohol and tobacco excise duties would need to be dedicated to the new EU tax. This is shown in Figure 113.

Figure 113 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: POLAND



[99] Government publications, 2000-2005 from Polish Ministry of Finance, address: http://www.mf.gov.pl/index.php?wysw=2&sgl=2&dzial=36

21.5 Tax on Corporate Profits

Table 122 shows the level of revenues obtained by Poland since 2000 through corporate profit tax.

Table 122 – Corporate Profit Tax revenues: POLAND

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	4,201	3,292	3,738	3,514	3,256	3,926
% annual change		-21.6%	13.5%	-6.0%	-7.3%	20.6%

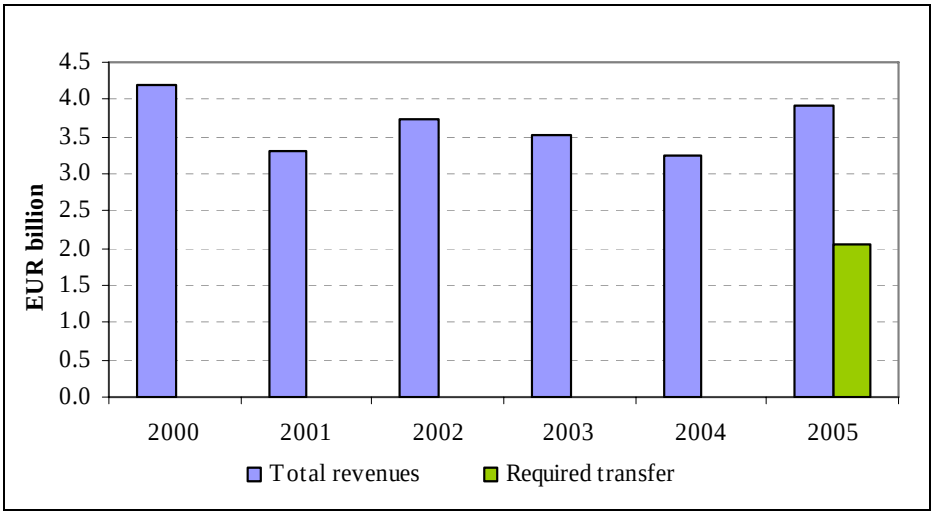
Source: Polish Ministry of Finance ([100])

Revenues from corporate profit tax fluctuated during the time period under analysis, with revenues declining in 2001, 2003 and 2004 but growing in 2002 and 2005. Revenue growth peaked in the last year of the observation period at 20.6%. The average annual growth rate was about -0.2%

The correlation with GDP per capita is negative, with a correlation coefficient is equal to -2.5%.

In order to raise a level of revenues equal to Poland's 2005 EU Budget contribution, about 52.3% of the revenues from this tax would need to be dedicated to the new EU tax, as shown in Figure 114.

Figure 114 – Total revenues from Corporate Profit Tax vs. required transfer: POLAND



[100] Government publications, 2000-2005 from Polish Ministry of Finance, address: http://www.mf.gov.pl/index.php?wysw=2&sgl=2&dzial=36

22 Portugal

22.1 Summary of results

Portugal's total GDP in 2005 was approximately EUR 147.4bn. According to the 2005 EU Budget, the level of annual funding to be provided by Portugal to the EU net of Traditional Resources and the UK rebate was about EUR 1,419m (about 1.0% of its GDP).

Table 123 shows the GDP (both in absolute and per capita terms) and Consumer Expenditure for Portugal since 2000.

Table 123 – GDP and Consumer Expenditure: PORTUGAL

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	122,270	129,308	135,433	137,522	143,028	147,378
GDP per capita (EUR)	11,993	12,607	13,112	13,214	13,655	13,997
Consumer Expenditure (EUR/inhabitant)	9,900	10,400	10,900	11,100	11,600	12,100

Source: Eurostat ([101])

On average, total GDP has grown by about 3.8% per annum. GDP per capita has grown at about 3.1% per annum. During this time period, total consumer expenditure experienced a growth of about 4.1% per annum.

Table 124 shows a summary of the results of our assessment of the candidate taxes for Portugal. A detailed analysis is presented in the remainder of this section.

Table 124 – Summary of the assessment of candidate taxes: PORTUGAL

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	6.3%	94.2%	12.2%	1.8%
Duty on motor fuel	7.9%	91.4%	47.5%	-5.4%
Duties on alcohol and tobacco	4.7%	56.1%	94.4%	25.5%
Corporate Profit tax	-3.2%	-75.5%	38.1%	6.0%

Source: Deloitte calculation

VAT shows a relatively high fluctuation in revenues. Nevertheless, it appears to be highly correlated with the country's GDP. The share of revenues required to match Portugal's current contribution to the EU budget is about 12.2%.

The revenues from excise duty on motor fuel also showed a fluctuating average annual change as well as a high correlation with GDP. The required share of revenues would equal 47.5%.

The revenues from excise duties on alcohol and tobacco were relatively fluctuating during this time period and 94.4% of their total revenue would be needed to fund the country's contribution to the EU budget.

Finally, the revenues from corporate profit tax demonstrated a decreasing and fluctuating average annual change in revenues. The revenues from this tax appear to be inversely correlated with GDP, with correlation of about -75%. In order to finance Portugal's contribution to the EU budget, a

[101] Information on *GDP*, *Consumer Expenditure* and *Population*, Eurostat, *ibid.*

38.1% share of revenues from this tax would be required.

The required share of revenues from VAT is 1.8 percentage points higher than the EU 27 average, and the required share of revenues from corporate profit tax is 6.0% higher. The required shares of revenues from duties on motor fuel and from duties on alcohol and tobacco are respectively 5.4 and 25.5 percentage points higher than the average required share across the EU 27 countries.

22.2 VAT

Table 125 shows the level of VAT revenues obtained by Portugal since 2000. It also shows a breakdown by origin, i.e. VAT obtained from domestic exchanges as well as VAT obtained from imports.

Table 125 – VAT Revenues: PORTUGAL

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	8,672	8,965	9,956	10,562	10,340	11,671
% annual change		3.4%	11.0%	6.0%	-2.1%	12.9%
VAT on domestic exchanges	7,557	7,844	8,909	9,561	9,336	10,635
VAT on imports	1,114	1,121	1,047	1,000	1,003	1,036

Source: Ministry of Finance, Portugal, www.dgo.pt [102]

The average annual change in VAT revenues was 6.3%. Revenues from domestic transactions account for about 89.3% of total VAT revenues. Overall, revenues increased during the time period considered, with the exception of 2004 when they fell by about 2.1%.

According to the Portuguese Ministry of Finance, the 2004 decrease in revenues was partly due to an increase in the payment of refunds. Furthermore, 2003 included additional revenues due to a credit system that was later abolished. In 2005, when the tax rate was increased from 19% to 21%, VAT revenues increased sharply by almost 13% ([103, 104]). VAT revenues are highly correlated with movements in GDP per capita. The estimated correlation is equal to about 94%.

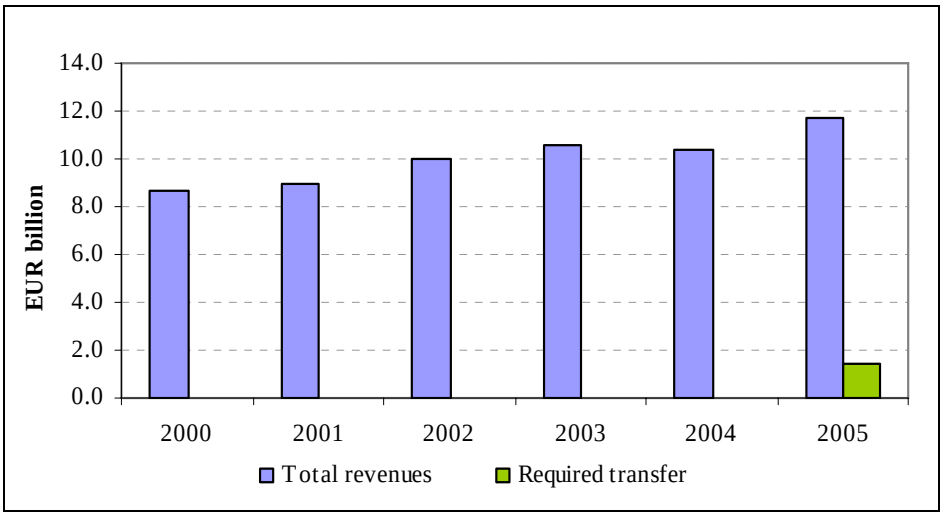
In order to raise a level of revenues equal to Portugal's 2005 EU budget contribution, about 12.2% of total VAT revenues would need to be dedicated to the new EU tax. This share increases to 13.3% if only domestic VAT is considered.

Assuming all VAT revenues are raised at the standard rate of 21%, the required rate for the new EU tax would be about 2.6%, while the modified MS VAT rate would be 18.4%.

Figure 115 shows the variation of VAT revenues compared with the transfer required to match Portugal's recent contribution to the EU budget.

[102] Full address to index page: http://www.dgo.pt/cge/index.htm, PDF documents from 2000-2005 used.
[103] International Monetary Fund, *IMF Executive Board Concludes 2005 Article IV Consultation with Portugal*, http://www.imf.org/external/np/sec/pn/2005/pn05147.htm
[104] Ministry of Finance, *Conta General do Estado 2004*, www.dgo.pl

Figure 115– Total VAT revenues vs. required transfer: PORTUGAL



22.3 Excise Duty on Motor Fuel

Table 126 shows the level of revenues obtained by Portugal since 2000 through an excise duty on motor fuel.

Table 126 – Motor Fuel Excise Duty revenues: PORTUGAL

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,079	2,132	2,725	2,936	2,955	2,984
% annual change		2.5%	27.9%	7.7%	0.6%	1.0%

Source: Ministry of Finance, Portugal, www.dgo.pt ([105])

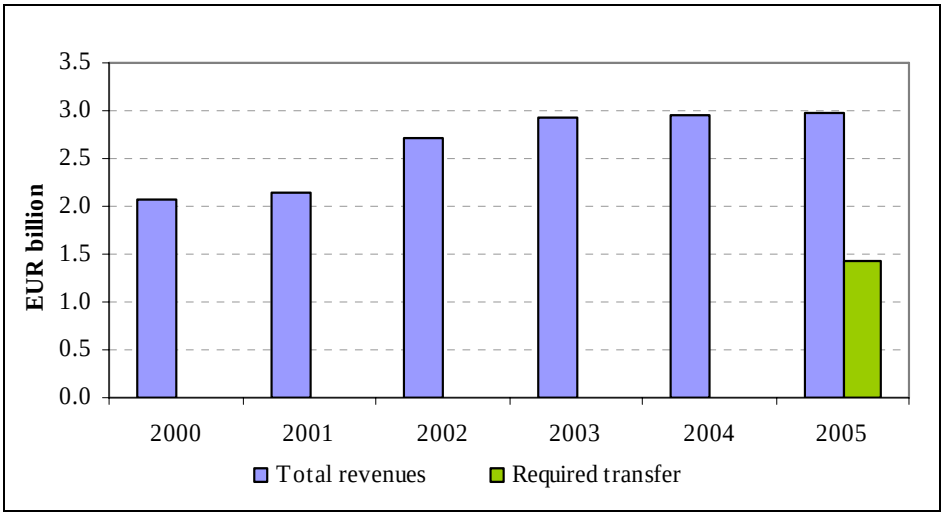
The average annual change observed in revenues from motor fuel excise duties was 7.95%. Revenues grew throughout the analysis period, alternative low and high growth rates. In the last two years, revenues appear to have stabilised. The correlation between revenues and GDP per capita has been high at about 91.7%.

In order to raise a level of revenues equal to the country's EU budget contribution, about 47.5% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average excise duty is approximately EUR 589 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 280 per 1000 litres would need to be transferred to the EU.

Figure 116 shows the variation of motor fuel excise revenues compared with the transfer required to match Portugal's recent contribution to the EU budget.

Figure 116 – Total revenues from Motor Fuel Excise Duty vs. required transfer: PORTUGAL



[105] Full address to index page: http://www.dgo.pt/cge/index.htm, PDF documents from 2000-2005 used.

22.4 Excise Duty on Alcohol and Tobacco

Table 127 shows the level of revenues obtained by Portugal since 2000 through excises duties on alcohol and tobacco.

Table 127 – Alcohol and Tobacco Excise Duties revenues: PORTUGAL

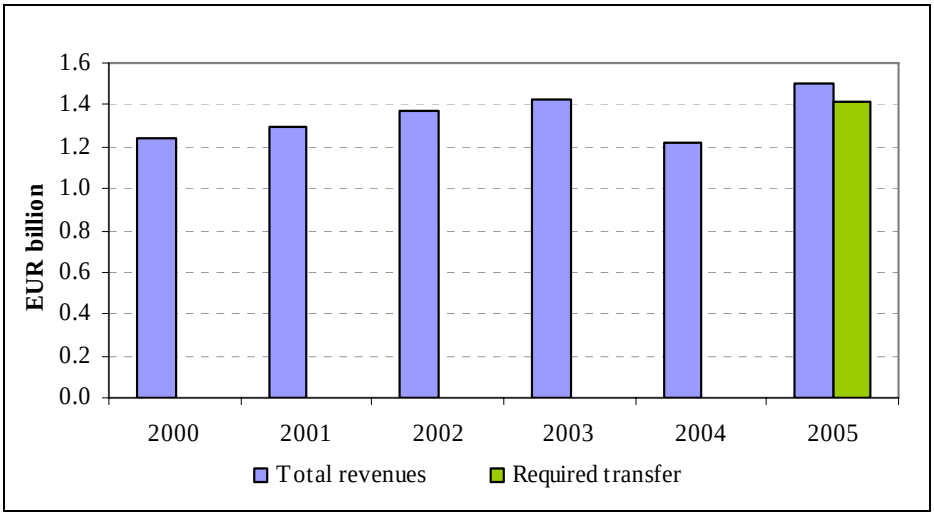
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,236	1,298	1,369	1,431	1,224	1,503
% annual change		5.0%	5.5%	4.5%	-14.4%	22.8%
Alcohol	201	233	210	207	197	180
Tobacco	1,034	1,065	1,159	1,223	1,027	1,322

Source: Ministry of Finance, Portugal, www.dgo.pt ([106])

Overall, the average annual growth rate is equal to about 4.7%. Some years showed major fluctuations in terms of total revenues: a fall of about 14.4% in 2004 was followed by an increase of over 20% in 2005. Since 2002, alcohol revenues have been declining, while tobacco revenues have increased since 2000. Their correlation with GDP per capita is 57.1%.

In order to match Portugal's 2005 EU budget contribution, 94.4% of the total revenues from these taxes would have to be dedicated to the new EU tax, as shown in Figure 117.

Figure 117 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: PORTUGAL



[106] Full address to index page: http://www.dgo.pt/cge/index.htm, PDF documents from 2000-2005 used.

22.5 Tax on Corporate Profits

Table 128 shows the level of revenues obtained by Portugal since 2000 through corporate profit tax.

Table 128 – Corporate Profit Tax revenues: PORTUGAL

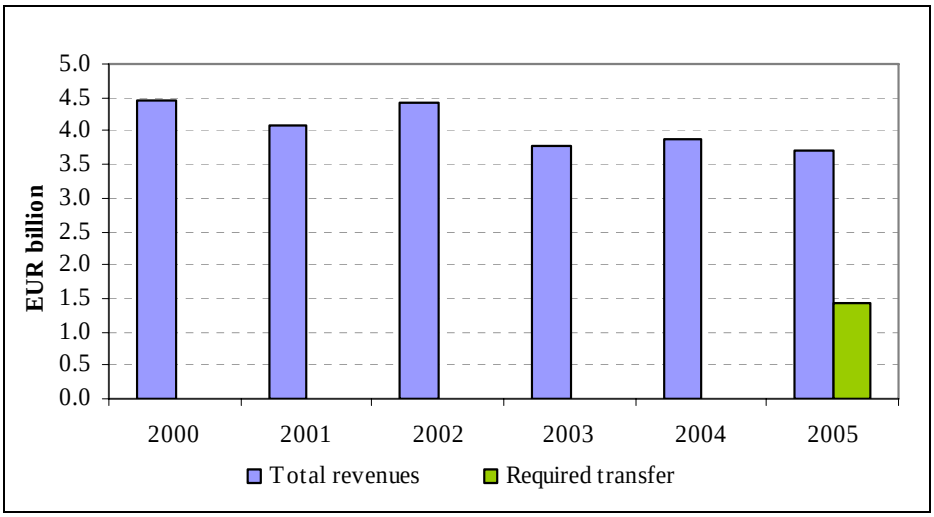
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	4,469	4,077	4,430	3,768	3,891	3,721
% annual change		-8.8%	8.7%	-15.0%	3.3%	-4.4%

Source: Ministry of Finance, Portugal, www.dgo.pt ([107])

The average annual change for corporate profit tax revenues is -3.2% per annum. From 2000 to 2005 some large decreases were observed: about -8.8% in 2001 and about -15.0% in 2003. In 2003 the Portuguese economy experienced a recession and thus tax revenues from corporate profit tax as well as consumer expenditure experienced a decline ([108],[109]).In 2005, revenues fell by 4.4%.

Despite the observed decreases during this period under analysis, corporate profit tax revenues are sufficient to match Portugal's 2005 contribution to the EU budget. A share of 38.1% of annual revenues would be needed to fund the country's contribution. This is shown in Figure 118.

Figure 118 – Total revenues from Corporate Profit Tax vs. required transfer: PORTUGAL



[107] Full address to index page: http://www.dgo.pt/cge/index.htm, PDF documents from 2000-2005 used.
[108] European Commission, *Commission's Assessment of the 2004 update of the stability programme of Portugal*, http://ec.europa.eu/economy_finance/about/activities/sgp/country/commass/pt/ass_pt20032004.pdf, 2005
[109] IMF (2003), *Public Information Notice: Article IV Consultation*. Available at: http://www.imf.org/external/pubs/cat/longres.cfm?sk=17275.0

23 Slovenia

23.1 Summary of results

Slovenia's total GDP in 2005 was approximately EUR 27.6bn. According to the EU 2005 Budget, the level of annual funding to be provided by Slovenia to the EU net of Traditional Resources and the UK rebate was about EUR 247m (equivalent to about 0.9% of its GDP)

Table 129 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Slovenia since 2000.

Table 129 – GDP and Consumer Expenditure: SLOVENIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	20,814	22,018	23,699	24,860	26,232	27,634
GDP per capita (EUR)	10,471	11,064	11,885	12,461	13,140	13,833
Consumer Expenditure per capita (EUR)	8,000	8,500	8,900	9,400	9,800	10,300

Source: Eurostat

On average, total GDP grew by about 5.8% per annum. GDP per capita grew by about 5.7% per annum. Consumption expenditure grew at approximately 5.2% on average per annum.

Table 130 summarises the results of our assessment of the candidate taxes for Slovenia. A detailed analysis of each tax is presented in the remainder of this section.

Table 130 – Summary of the assessment of candidate taxes: SLOVENIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	9.2%	99.8%	9.9%	-0.5%
Duty on motor fuel	10.2%	94.0%	38.0%	-14.9%
Duties on alcohol and tobacco	14.8%	99.7%	78.8%	9.9%
Corporate profit tax	30.4%	95.7%	30.9%	-1.2%

Source: Deloitte calculation

The revenues from all the candidate taxes have been growing at high rates between 2000 and 2005. Corporate profit tax revenues show the highest rate of growth with an average annual change of 30.4%. The lowest growth rate was experienced by revenues from VAT.

All revenues flows seem to be highly correlated with the country's GDP per capita. Additionally, revenues from all the taxes are sufficient to match Slovenia's recent contribution to the EU Budget.

The required share of duties on alcohol and tobacco revenues is 9.9 percentage points higher than the European average share. The required shares of revenues from VAT, duties on motor fuel and corporate profit tax are respectively 0.5, 14.9 and 1.2 percentage points lower than the average shares across the EU 27 countries.

23.2 VAT

Table 131 shows the level of VAT revenues obtained by Slovenia since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 131 – VAT Revenues: SLOVENIA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,605	1,725	1,990	2,147	2,321	2,483
% annual change		7.4%	15.4%	7.9%	8.1%	7.0%
VAT on domestic exchanges	439	373	408	242	1,231	1,983
VAT on imports	1,166	1,351	1,582	1,905	1,090	500

Source: Statistical Office of the Republic of Slovenia ([110])

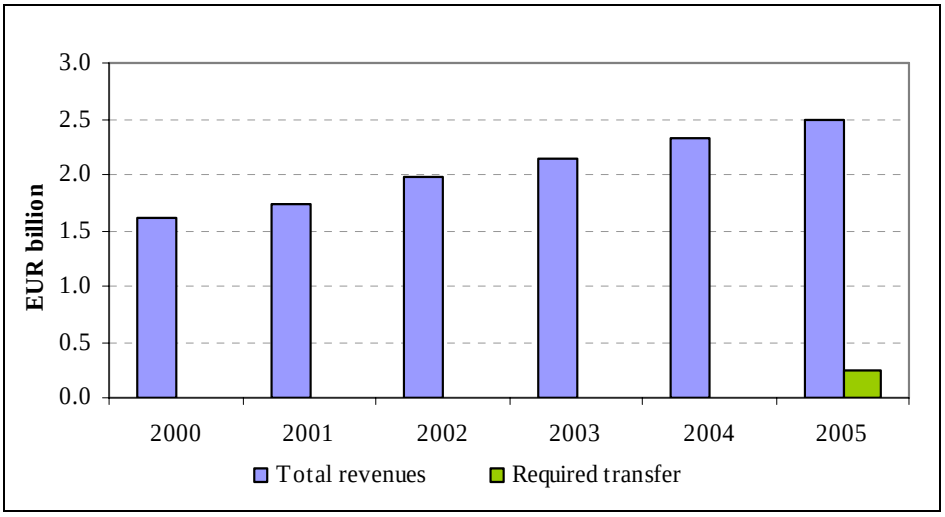
The average annual change in VAT revenues was 9.2%. Revenues from domestic VAT account on average for about 35.6% of total VAT revenues during this period. Revenues from VAT were growing over time and are also highly correlated with movements in GDP per capita. The estimated correlation is equal to about 99.8%.

In order to raise a level of revenues equal to Slovenia's 2005 EU Budget contribution, about 9.9% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were to be considered, then about 12.4% of these revenues must be transferred to the EU.

Assuming that all VAT revenues are raised at the standard rate of 20%, the required rate for the new EU tax would be approximately 2.0%. This results in a modified MS VAT rate equal to about 18%.

Figure 119 shows the variation in VAT revenues compared with the transfer required to match Slovenia's 2005 contribution to the EU Budget.

Figure 119 – Total VAT revenues vs. required transfer: SLOVENIA



[110] Address: www.stat.si, Internal documents provided to us by Ms Alenka Pahor-Zvanut at Alenka.Pahor-Zvanut@gov.si

23.3 Excise Duty on Motor Fuel

Table 132 shows the level of revenues obtained by Slovenia since 2000 through an excise duty on motor fuel.

Table 132 – Motor Fuel Excise Duty revenues: SLOVENIA

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	406	520	577	592	636	649
% annual change		28.0%	10.9%	2.7%	7.3%	2.0%

Source: Statistical Office of the Republic of Slovenia ([111])

The average annual change in revenues from motor fuel excise duties was 10.2%. The growth rate peaked in 2001, with revenue growth declining slightly since then. Overall, however, revenues increased steadily.

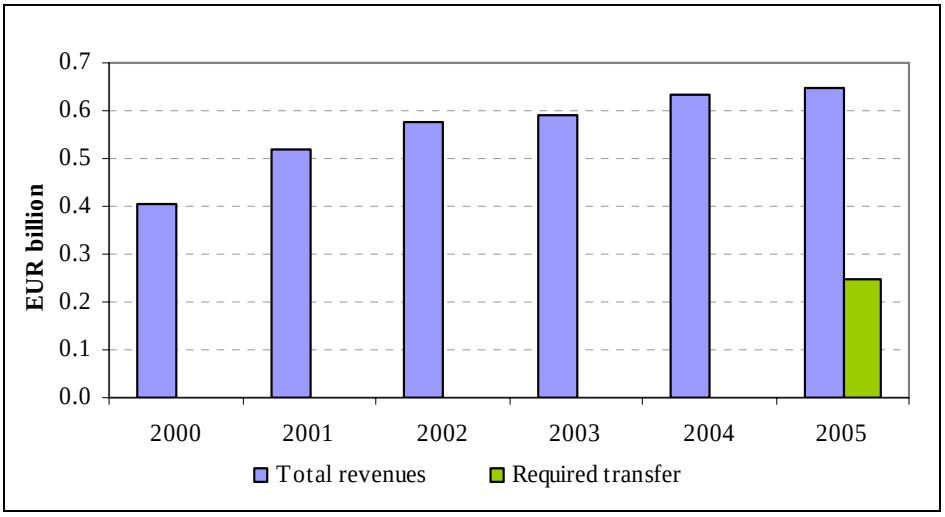
The revenues grew constantly over time and show a close correlation with movements in GDP per capita, with a correlation factor of about 94.0%.

In order to raise a level of revenues equal to Slovenia's recent EU Budget contribution, 38% of the total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 391 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 149 per 1000 litres would need to be transferred to the EU.

Figure 120 shows the variation in total fuel excise revenues compared with the transfer required to match Slovenia's recent contribution to the EU Budget.

Figure 120 – Total revenues from Motor Fuel Excise Duty vs. required transfer: SLOVENIA



[111] Address: www.stat.si, Internal documents provided to us by Ms Alenka Pahor-Zvanut at Alenka.Pahor-Zvanut@gov.si

23.4 Excise Duty on Alcohol and Tobacco

Table 133 shows the level of revenues obtained by Slovenia since 2000 through excise duties on alcohol and tobacco.

Table 133 – Alcohol and Tobacco Excise Duties revenues: SLOVENIA

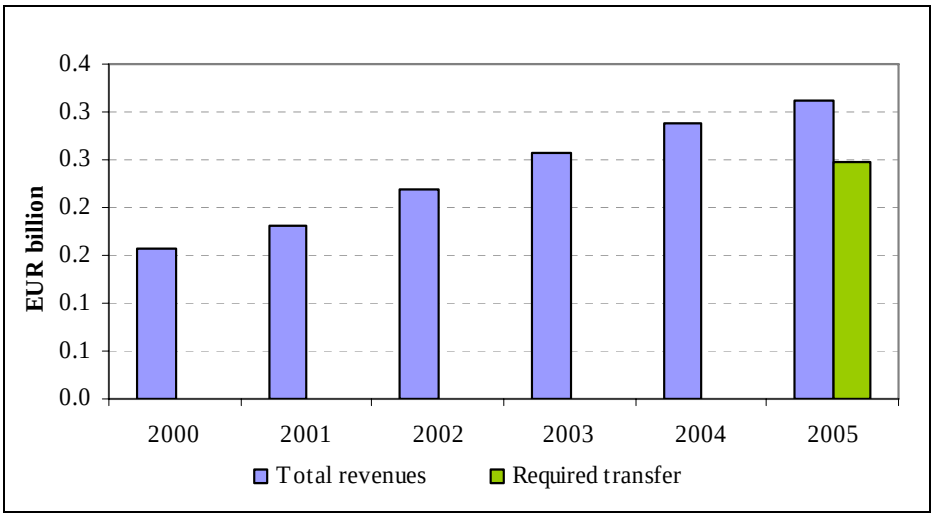
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	158	182	219	257	289	313
% annual change		15.2%	20.7%	17.0%	12.5%	8.3%
Alcohol	43	56	59	62	61	63
Tobacco	115	125	161	195	228	250

Source: Statistical Office of the Republic of Slovenia ([112])

Revenues from these taxes have shown very high annual growth rates, with the highest value (20.7%) observed in 2002. The average annual growth rate has been about 14.8% during the time period under analysis. The correlation with GDP per capita is also high, with a coefficient of about 99.7%.

In order to raise a level of revenues equal to the country's 2005 EU Budget contribution, 78.8% of the total revenues from alcohol and tobacco excise duties are required. This is shown in Figure 121.

Figure 121 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: SLOVENIA



[112] Address: www.stat.si, Internal documents provided to us by Ms Alenka Pahor-Zvanut at Alenka.Pahor-Zvanut@gov.si

23.5 Tax on Corporate Profits

Table 134 shows the level of revenues obtained by Slovenia since 2000 through corporate profit tax.

Table 134 – Corporate Profit Tax revenues: SLOVENIA

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	217	262	364	439	525	798
% annual change		21.0%	39.0%	20.5%	19.6%	51.9%

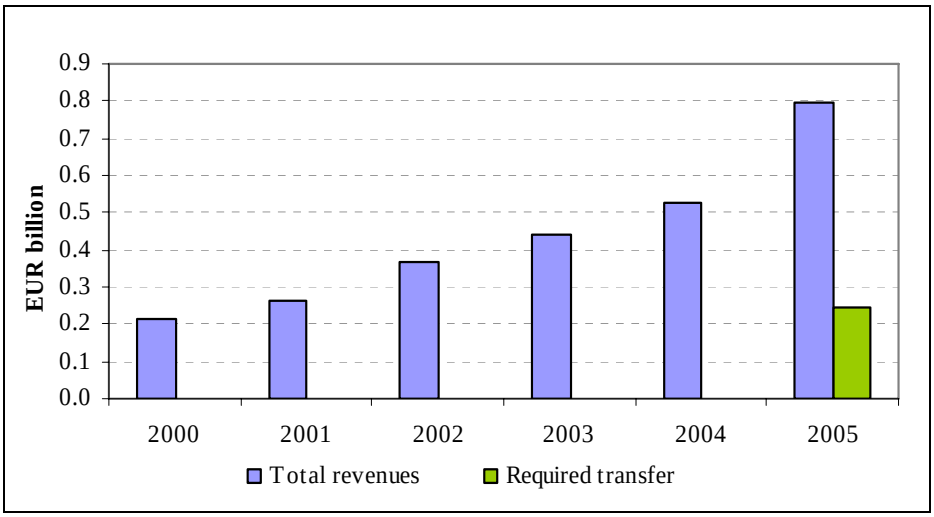
Source: Statistical Office of the Republic of Slovenia ([113])

Revenues from these taxes have shown very high growth rates, with a peak of 51.9% observed in the last year of the time period under analysis. All remaining years also experienced substantial increases in corporation profit tax revenues. The average annual growth rate was about 30.4%.

Revenues from this tax have been growing in step with GDP per capita and hence have a correlation factor of 95.7%.

In order to raise a level of revenues equal to Slovenia's 2005 EU Budget contribution, about 30.9% of the revenues from this tax must be dedicated to the new EU tax, as shown in Figure 122.

Figure 122 – Total revenues from Corporate Profit Tax vs. required transfer: SLOVENIA



[113] Address: www.stat.si, Internal documents provided to us by Ms Alenka Pahor-Zvanut at Alenka.Pahor-Zvanut@gov.si

24 Slovakia

24.1 Summary of results

Slovakia's total GDP in 2005 was approximately EUR 38bn. According to the EU 2005 Budget, the level of annual funding to be provided by Slovakia to the EU net of Traditional Resources and the UK rebate was about EUR 315m (equivalent to about 0.8% of its GDP).

Table 135 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Slovakia since 2000.

Table 135 – GDP and Consumer Expenditure: SLOVAKIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	22,096	23,570	26,034	29,229	33,863	38,113
GDP per capita (EUR)	4,093	4,382	4,840	5,434	6,294	7,078
Consumer Expenditure per capita (EUR)	3,100	3,400	3,800	4,200	4,800	5,400

Source: Eurostat

On average, total GDP grew by about 11.6% per annum. GDP per capita grew by about 11.6% per annum. Consumption expenditure grew at approximately 11.8% on average per annum.

Table 136 summarises the results of our assessment of the candidate taxes for Slovakia. A detailed analysis of each tax is presented in the remainder of this section.

Table 136 – Summary of the assessment of candidate taxes: SLOVAKIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	14.3%	97.2%	9.9%	-0.5%
Duty on motor fuel	15.0%	99.0%	38.5%	-14.4%
Duties on alcohol and tobacco	14.3%	94.0%	66.0%	-2.9%
Corporate profit tax	12.1%	96.5%	29.5%	-2.6%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing at high rates during the period under analysis. Revenues from excise duty on motor fuel show the highest rate of growth of 15.0%, however, the other taxes show similar growth rates.

All revenues streams seem to be highly correlated with Slovakia's GDP per capita, which was also growing at a high rate. Additionally, revenues from all the tax candidates are sufficient to match the country's recent contribution to the EU budget.

All the required shares of revenues in Slovakia are lower than the average across the EU 27 countries. The required share of revenues from VAT, duties on motor fuel, duties on alcohol and tobacco and from corporate profit tax are respectively 0.5, 14.4, 2.9 and 2.6 percentage points lower than the European average.

24.2 VAT

Table 137 shows the level of VAT revenues obtained by Slovakia since 2000. The Ministry of Finance of the Slovak republic, the source of the information used for this analysis, was unable to provide data on the breakdown of VAT revenues into its components.

Table 137 – VAT Revenues: SLOVAKIA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,657	1,698	1,926	2,020	2,487	3,172
% annual change		2.5%	13.4%	4.9%	23.1%	27.6%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: The Ministry of Finance of the Slovak Republic ([114])

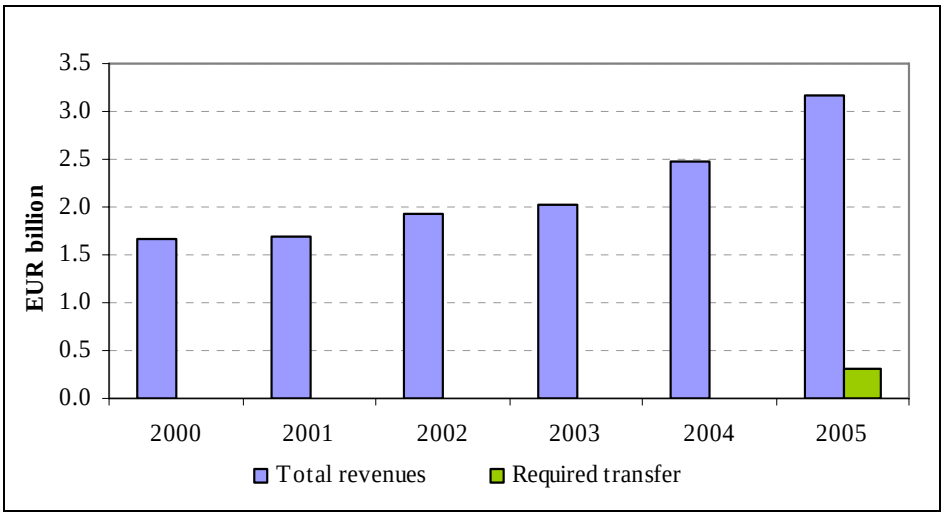
The average annual change in VAT revenues was 14.3%. The estimated correlation between VAT revenues and GDP per capita was equal to 97.2%.

In order to raise a level of revenues equal to Slovakia's 2005 EU Budget contribution, about 9.9% of total VAT revenues would need to be dedicated to the new EU tax.

Assuming that all VAT revenues are raised at the standard rate of 19% in Slovakia, the required rate for the new EU tax would be approximately 1.9%. This would result in a modified MS VAT rate of 17.1%.

Figure 123 shows the variation in VAT revenues compared with the transfer required to match Slovakia's recent contribution to the EU budget.

Figure 123 – Total VAT revenues vs. required transfer: SLOVAKIA



[114] Ministry of Finance of the Slovak Republic, Address: http://www.finance.gov.sk/Default.aspx?CatID=4738

24.3 Excise Duty on Motor Fuel

Table 138 shows the level of revenues obtained by Slovakia since 2000 through an excise duty on motor fuel.

Table 138 – Motor Fuel Excise Duty revenues: SLOVAKIA

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	413	419	479	622	739	819
% annual change		1.5%	14.2%	29.8%	18.9%	10.8%

Source: The Ministry of Finance of the Slovak Republic ([115])

The average annual change in revenues from motor fuel excise duties was 15.0%. The revenues have shown a very high growth rate during the period under analysis, with a peak in the growth rate of 29.8% in 2003.

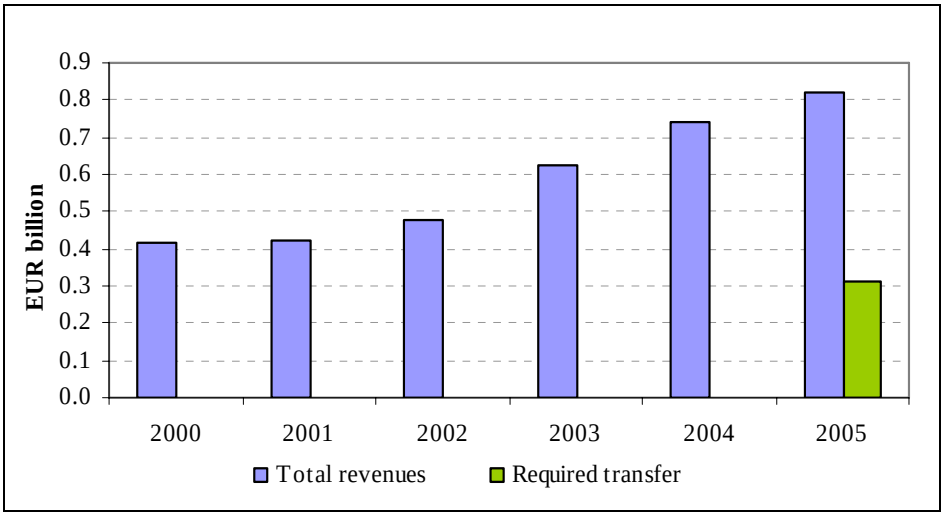
Revenues appear to be closely correlated with movements in GDP per capita, which is shown by a correlation factor equal to 99.0%.

In order to raise a level of revenues equal to Slovakia's recent EU Budget contribution, 38.5% of total motor fuel excise duty revenues must be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 431 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 166 per 1000 litres would need to be transferred to the EU.

Figure 124 shows the variation in total fuel excise revenues compared with the transfer required to match Slovakia's 2005 contribution to the EU budget.

Figure 124 – Total revenues from Motor Fuel Excise Duty vs. required transfer: SLOVAKIA



[115] Ministry of Finance of the Slovak Republic, Address: http://www.finance.gov.sk/Default.aspx?CatID=4738

24.4 Excise Duty on Alcohol and Tobacco

Table 139 shows the level of revenues obtained by Slovakia since 2000 through excise duties on alcohol and tobacco.

Table 139 – Alcohol and Tobacco Excise Duties revenues: SLOVAKIA

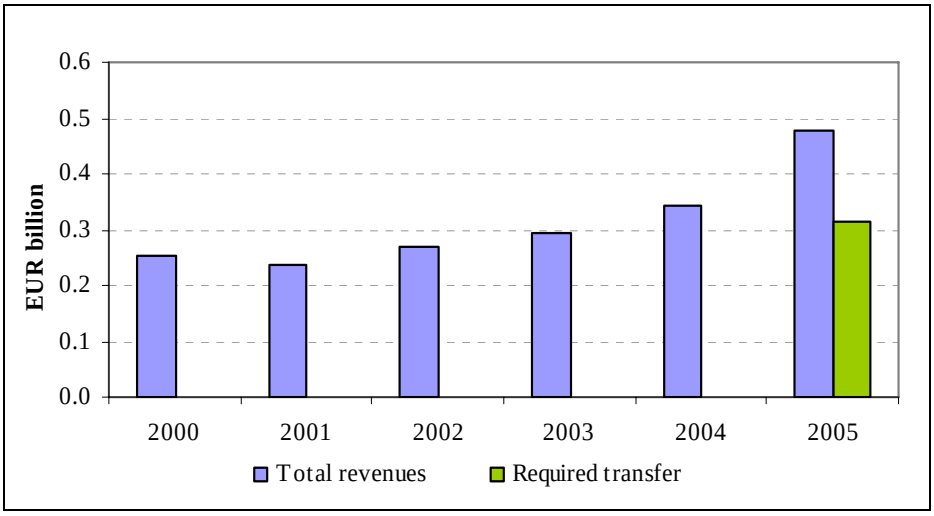
Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	255	236	271	295	345	477
% annual change		-7.2%	14.5%	9.1%	16.8%	38.4%
Alcohol	142	130	123	122	151	187
Tobacco	112	106	147	173	194	290

Source: The Ministry of Finance of the Slovak Republic ([116])

Since 2000, revenues from these taxes showed fairly high annual growth rates, with the highest value (38.4%) recorded in 2005. During this time period, the average annual growth rate was about 14.3%. The correlation with GDP per capita is also fairly high, with a coefficient equal to 94.0%.

In order to match the country's latest EU Budget contribution, 66% of the total revenues of these taxes would have to be dedicated to the new EU tax. This is shown in Figure 125.

Figure 125 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: SLOVAKIA



[116] Ministry of Finance of the Slovak Republic, Address: http://www.finance.gov.sk/Default.aspx?CatID=4738

24.5 Tax on Corporate Profits

Table 140 shows the level of revenues obtained by Slovakia since 2000 through corporate profit tax.

Table 140 – Corporate Profit Tax revenues: SLOVAKIA

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	615	627	685	816	830	1,066
% annual change		1.9%	9.4%	19.2%	1.7%	28.4%

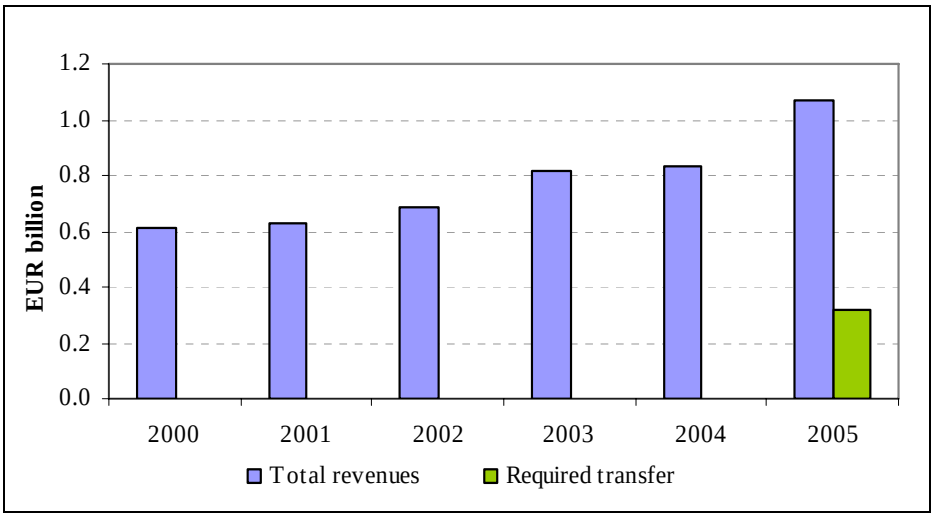
Source: Eurostat

Revenues from corporate profit tax grew steadily since 2001, with very high growth rates in both 2003 (19.2%) and in 2005 (28.4%). The average annual growth rate was about 12.1%. Revenues from this tax grew in line with GDP per capita. The correlation coefficient is equal to about 96.5%.

In order to raise a level of revenues equal to Slovakia's 2005 EU Budget contribution, about 29.5% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 126 shows the variation in corporate profit tax revenues compared with the transfer required to match Slovakia's contribution to the EU budget.

Figure 126 – Total revenues from Corporate Profit Tax vs. required transfer: SLOVAKIA



25 Finland

25.1 Summary of results

Finland's total GDP in 2005 was approximately EUR 157bn. According to the EU 2005 Budget, the level of annual funding to be provided by Finland to the EU net of Traditional Resources and the UK rebate was about EUR 1,352m (equivalent to about 0.9% of its GDP)

Table 141 shows GDP (both in absolute and per capita terms) and consumer expenditure for Finland since 2000.

Table 141 – GDP and Consumer Expenditure: FINLAND

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	132,272	139,868	143,974	145,938	151,935	157,377
GDP per capita (EUR)	25,578	26,996	27,714	28,031	29,108	30,053
Consumer Expenditure per capita (EUR)	17,800	18,800	19,700	20,500	21,300	22,200

Source: Eurostat

On average, total GDP grew by about 3.5% per annum. GDP per capita grew by about 3.3% per annum. Consumption expenditure grew at approximately 4.5% on average per annum.

Table 142 summarises the results of our assessment of the candidate taxes for Finland. A detailed analysis of each tax is presented in the remainder of this section.

Table 142 – Summary of the assessment of candidate taxes: FINLAND

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	3.6%	94.6%	12.0%	1.6%
Duty on motor fuel	0.6%	30.6%	62.6%	9.7%
Duties on alcohol and tobacco	-2.2%	-60.2%	85.6%	16.7%
Corporate profit tax	-7.9%	-86.8%	25.2%	-6.9%

Source: Deloitte calculation

The VAT revenues of Finland have been growing at the highest growth rate (3.6%) of all the candidate taxes and show a high correlation with GDP per capita of 94.6%. Revenues from the excise duty on motor fuel appear to be relatively stable over the time period, yet their correlation with GDP per capita is only about 30%.

The revenues from excise duties on alcohol and tobacco as well as from corporate profit tax all decreased during this time period. Additionally, they all show a negative correlation with GDP per capita.

Every tax candidate generates sufficient revenues to match Finland's recent contribution to the EU budget.

The required share of VAT revenues is 1.6 percentage points higher than the European average. The required shares of revenues from duties on motor fuel and duties on alcohol and tobacco are respectively 9.7 and 16.7 percentage points higher than the average shares across the EU 27 countries. Conversely, the required share of revenues from corporate profit tax is 6.9 % percentage points lower than the EU 27 average.

25.2 VAT

Table 143 shows the level of VAT revenues obtained by Finland since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 143 – VAT Revenues: FINLAND

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	9,471	9,776	9,756	10,257	10,604	11,283
% annual change		3.2%	-0.2%	5.1%	3.4%	6.4%
VAT on domestic exchanges	6,734	7,090	7,230	7,363	7,427	7,930
VAT on imports	2,737	2,686	2,526	2,894	3,177	3,353

Source: The Ministry of Finance of Finland ([117])

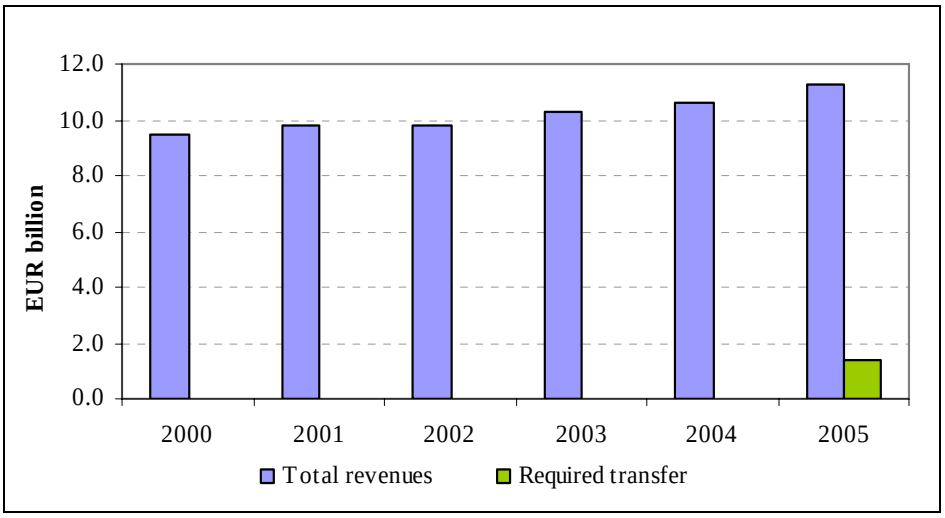
The average change in VAT revenues was 3.6% per annum. Revenues from domestic VAT account on average for about 71.6% of total VAT revenues. Revenues from VAT experienced growth in all years except in 2002, when they declined by 0.2%. Since 2003, the revenues showed quite strong growth, particularly in 2005 when the annual growth rate was 6.4%. The estimated correlation with GDP per capita is equal to about 94.6%.

In order to raise a level of revenues equal to the country's 2005 EU Budget contribution, about 12% of total VAT revenues would need to be dedicated to the new EU tax. Looking only at domestic VAT, about 17% of the revenues would need to be transferred to the EU.

Assuming all VAT revenues are raised at the standard rate of 22%, the required rate for the new EU tax would need to be about 2.6%, which results in a modified MS VAT rate of 19.4%.

Figure 127 shows the variation of VAT revenues compared with the transfer required to match Finland's contribution o the EU budget.

Figure 127 – Total VAT revenues vs. required transfer: FINLAND



[117] Address: www.vm.fi , Internal documents provided to us by Mr Panu Kukkonen, Panu.Kukkonen@vm.fi

25.3 Excise Duty on Motor Fuel

Table 144 shows the level of revenues obtained by Finland since 2000 through an excise duty on motor fuel.

Table 144 – Motor Fuel Excise Duty revenues: FINLAND

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	n/a	2,124	2,182	2,168	2,160
% annual change		n/a	n/a	2.7%	-0.6%	-0.4%

Source: The Ministry of Finance of Finland ([118])

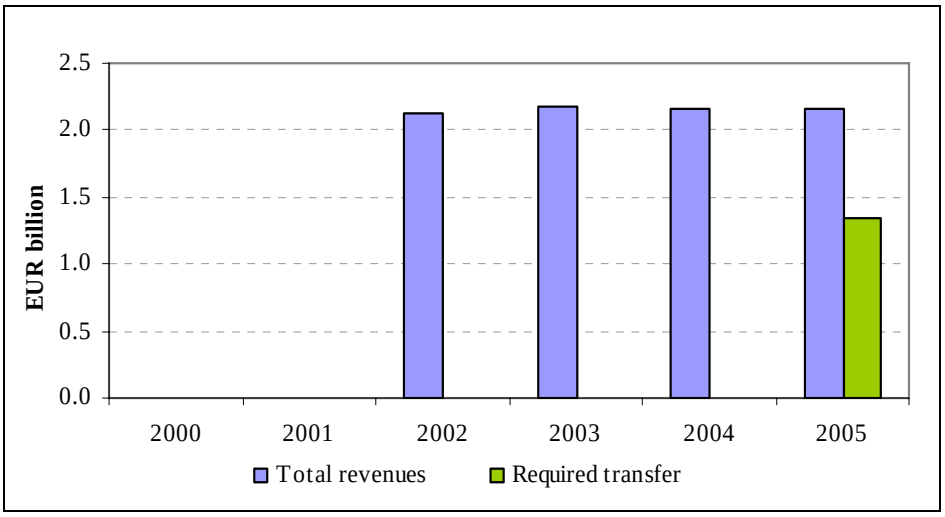
The average annual change in revenues from motor fuel excise duties was 0.6% for the years available. Since 2004 the revenues declined: by 0.6% in 2004 and by 0.4% in 2005. The correlation with GDP per capita appears to be relatively low with an estimate of about 30.6%.

In order to raise a level of revenues equal to Finland's recent EU contribution, about 62.6% of the total motor fuel excise duty revenues would need to be dedicated to the new tax.

Since the average motor fuel excise duty is approximately EUR 588 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 368 per 1000 litres would need to be transferred to the EU.

Figure 128 shows the variation in total fuel excise revenues compared with the transfer required to match Finland's contribution to the EU Budget.

Figure 128 – Total revenues from Motor Fuel Excise Duty vs. required transfer: FINLAND



[118] Address: www.vm.fi , Internal documents provided to us by Ms Jenni Oksanen, Jenni.Oksanen@vm.fi

25.4 Excise Duty on Alcohol and Tobacco

Table 145 shows the level of revenues obtained by Finland since 2000 through excise duties on alcohol and tobacco.

Table 145 – Alcohol and Tobacco Excise Duties revenues: FINLAND

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,800	1,894	1,952	1,956	1,628	1,580
% annual change		5.2%	3.1%	0.2%	-16.8%	-2.9%
Alcohol	1,239	1,295	1,348	1,363	1,030	972
Tobacco	561	599	604	593	598	608

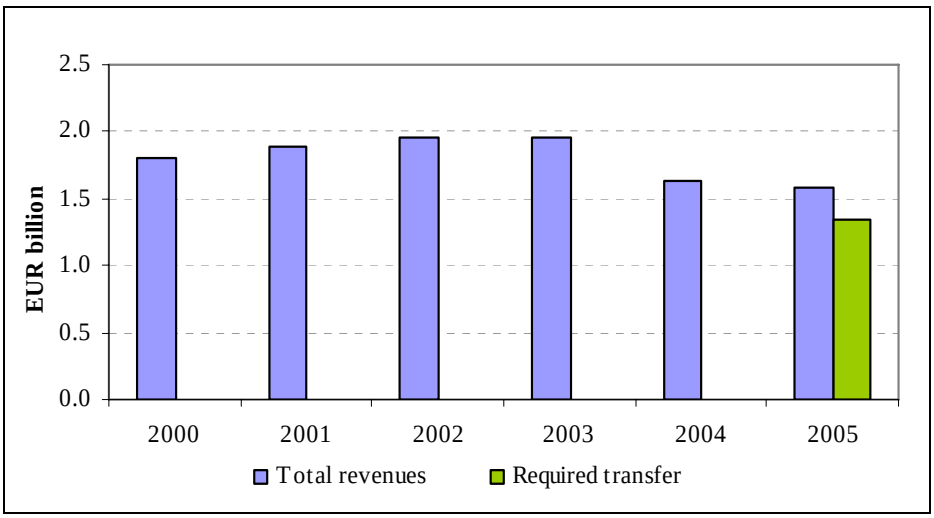
Source: The Ministry of Finance of Finland ([119])

Revenues from these taxes have shown relatively large fluctuations during the time period examined. The strongest growth was observed in 2001 at 5.2% and the largest decline was seen in 2004 at almost 17%. The decline in growth over the past two years seems to be mainly due to a fall in revenues from alcohol excise duty.

Overall, the average annual change has been about -2.2%. The correlation with GDP per capita is negative at -60.2%.

A share of 85.6% of the combined revenues obtained from these excise duties is needed in order to match Finland's 2005 EU Budget contribution, as shown in Figure 129.

Figure 129 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: FINLAND



[119] Address: www.vm.fi , Internal documents provided to us by Ms Jenni Oksanen, Jenni.Oksanen@vm.fi

25.5 Tax on Corporate Profits

Table 146 shows the level of revenues obtained by Finland since 2000 through corporate profit tax.

Table 146 – Corporate Profit Tax revenues: FINLAND

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	7,792	5,835	5,988	4,952	5,357	n/a
% annual change		-25.1%	2.6%	-17.3%	8.2%	n/a

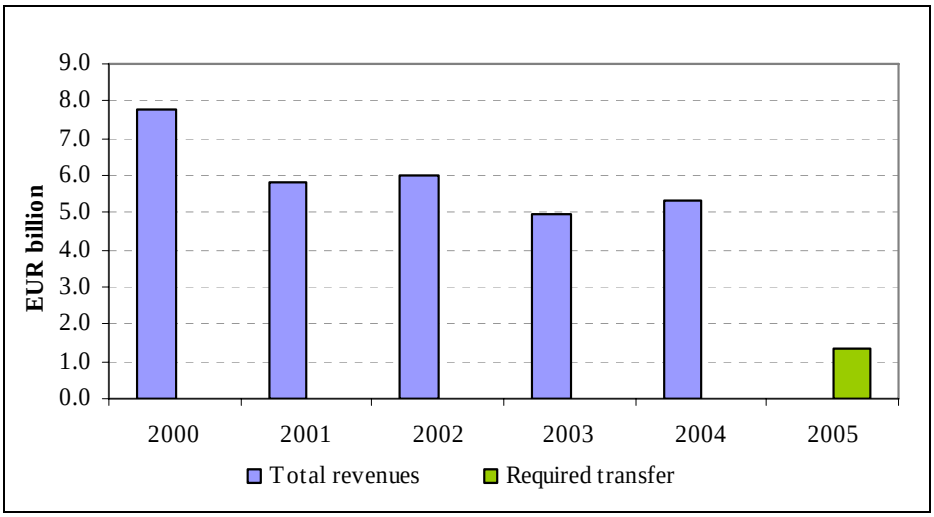
Source: The Ministry of Finance of Finland ([120])

Revenues from corporate profit tax showed significant variation during this time period. In 2001 total revenues fell by over a quarter and in 2003 the decline was about 17.3%. In 2004 the revenues showed a strong growth rate of 8.2% per annum. Data for 2005 was unavailable.

The average annual growth rate was about -7.9% and the correlation factor was negative at -86.8%, which implies that revenues do not grow in line with GDP per capita.

In order to raise a level of revenues equal to Finland's 2005 EU budget contribution, about 25.2% of the revenues from this tax would need to be dedicated to the new EU tax. This is shown in Figure 130.

Figure 130 – Total revenues from Corporate Profit Tax vs. required transfer: FINLAND



[120] Address: www.vm.fi , Internal documents provided to us by Ms Jenni Oksanen, Jenni.Oksanen@vm.fi

26 Sweden

26.1 Summary of results

Sweden's total GDP in 2005 was approximately EUR 288bn. According to the EU 2005 Budget, the level of annual funding to be provided by Sweden to the EU net of Traditional Resources and the UK rebate is equal to about EUR 2,303m (equivalent to about 0.8% of its GDP).

Table 147 shows GDP (both in absolute and per capita terms) and Consumer Expenditure for Sweden since 2000.

Table 147 – GDP and Consumer Expenditure: SWEDEN

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	262,550	247,253	258,878	269,548	281,124	287,706
GDP per capita (EUR)	29,629	27,835	29,058	30,148	31,321	31,927
Consumer Expenditure per capita (EUR)	22,400	21,100	22,200	23,200	23,700	24,000

Source: Eurostat

On average, total GDP grew by about 1.9% per annum. GDP per capita grew by about 1.6% per annum. Consumption expenditure grew at approximately 1.5% on average per annum.

Table 148 summarises the results of our assessment of the candidate taxes for Sweden. A detailed analysis of each tax is presented in the remainder of this section.

Table 148 – Summary of the assessment of candidate taxes: SWEDEN

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	5.0%	82.5%	8.6%	-1.8%
Duty on motor fuel	1.6%	78.3%	82.4%	29.5%
Duties on alcohol and tobacco	0.0%	-64.0%	not sufficient	
Corporate profit tax	13.9%	89.3%	21.2%	-10.9%

Source: Deloitte calculation

The revenues from VAT, excise duty on motor fuel and corporate profit tax all grew during the period under analysis. Revenues from duties on alcohol and tobacco did not experience any average annual change during the time period, while corporate profit tax revenues showed the highest rate of growth at 13.9%.

VAT, duty on motor fuel and corporate profit tax appeared to be highly correlated with the country's GDP per capita; however, alcohol and tobacco duties appeared to have a negative correlation factor.

Only the revenues from duties on alcohol and tobacco were insufficient to match Sweden's recent contribution to the EU budget.

The required share of VAT revenues is 1.8 percentage points lower than the EU 27 average, while the share of revenues from duties on motor fuel is 29.5 percentage points above the EU average. The share from corporate profit tax is 10.9 percentage points lower than the European average.

26.2 VAT

Table 149 shows the level of VAT revenues obtained by Sweden since 2000.

Table 149 – VAT Revenues: SWEDEN

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	21,002	22,055	23,248	24,266	25,217	26,818
% annual change		5.0%	5.4%	4.4%	3.9%	6.3%
VAT on domestic exchanges	19,529	19,454	19,594	20,343	22,434	24,753
VAT on imports	1,473	2,601	3,653	3,923	2,783	2,065

Source: Swedish Ministry of Finance, Division for Public Finances ([121])

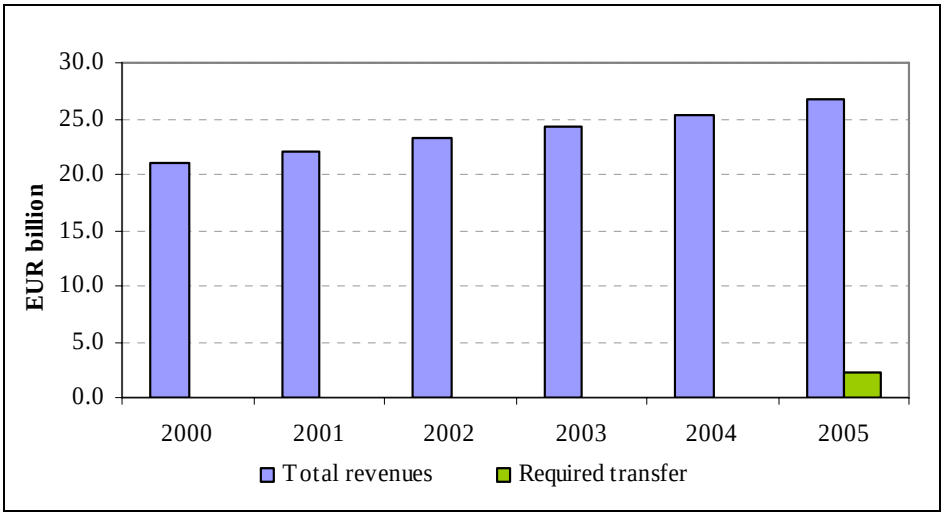
The average annual change in VAT revenues was 5.0%. Revenues from VAT grew over time and showed an estimated correlation with movements in GDP per capita of 82.5%. Revenues from domestic VAT account for about 7.7%.

In order to raise a level of revenues equal to Sweden's 2005 EU Budget contribution, about 8.6% of total VAT revenues must be dedicated to the new EU tax. If only domestic VAT were to be considered, revenues would not be sufficient to match Sweden's contribution to the EU budget.

Assuming all VAT revenues are raised at the standard rate of 25%, the required rate for the new EU tax would be approximately 2.1%. The modified MS VAT rate would thus equal 22.9%.

Figure 131 shows the variation of VAT revenues compared with the transfer required to match Sweden's recent contribution to the EU Budget.

Figure 131 – Total VAT revenues vs. required transfer: SWEDEN



[121] Address: www.sweden.gov.se , Internal documents provided to us by Ms Anna Danielsson anna.danielsson@finance.ministry.se

26.3 Excise Duty on Motor Fuel

Table 150 shows the level of revenues obtained by Sweden since 2000 through an excise duty on motor fuel.

Table 150 – Motor Fuel Excise Duty revenues: SWEDEN

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	2,582	2,596	2,709	2,742	2,742	2,795
% annual change		0.5%	4.4%	1.2%	0.0%	1.9%

Source: Swedish Ministry of Finance, Division for Public Finances ([122])

The average annual change in revenues from motor fuel excise duties was 1.6%. The growth rate peaked in 2002 (4.4%) but slowed down in the subsequent years. In 2004 revenues were stagnant, while 2005 experienced just below 2% of annual growth in revenues.

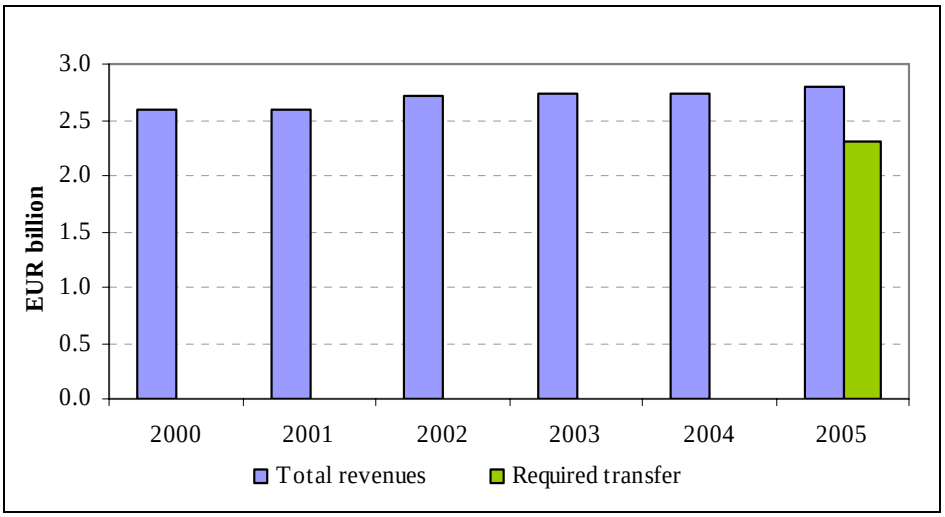
The correlation with movements in GDP per capita is positive with a correlation factor of 78.3%.

In order to match Sweden's 2005 EU Budget contribution, a share of 82.4% has to be dedicated to the new tax.

Since the average motor fuel excise duty is approximately EUR 505 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 416 per 1000 litres would need to be transferred to the EU.

Figure 132 shows the variation in motor fuel excise duty revenues compared with the transfer required to match Sweden's recent contribution to the EU Budget.

Figure 132 – Total revenues from Motor Fuel Excise Duty vs. required transfer: SWEDEN



[122] Address: www.sweden.gov.se , Internal documents provided to us by Ms Anna Danielsson anna.danielsson@finance.ministry.se

26.4 Excise Duty on Alcohol and Tobacco

Table 151 shows the level of revenues obtained by Sweden since 2000 through excise duties on alcohol and tobacco.

Table 151 – Alcohol and Tobacco Excise Duties revenues: SWEDEN

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,999	2,052	2,111	2,067	1,973	1,994
% annual change		2.6%	2.9%	-2.1%	-4.6%	1.0%
Alcohol	1,164	1,184	1,205	1,174	1,091	1,109
Tobacco	835	868	906	893	882	885

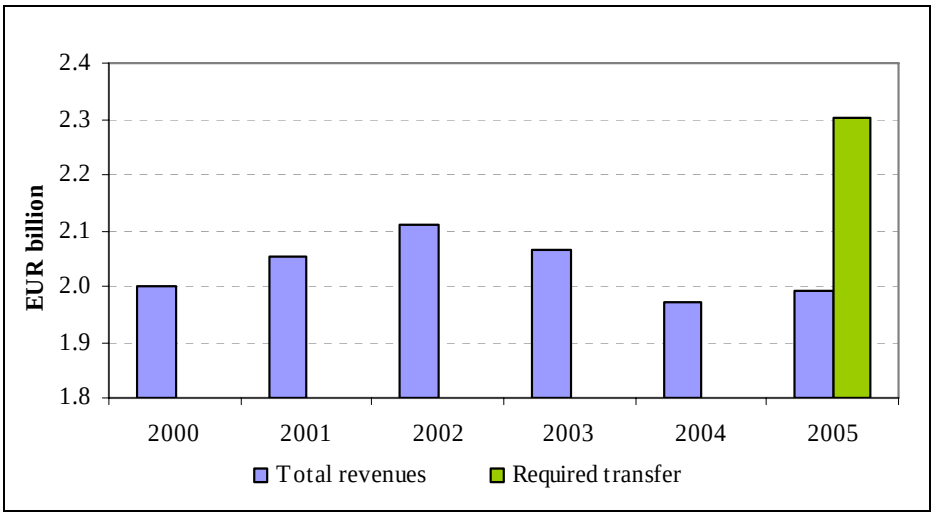
Source: Swedish Ministry of Finance, Division for Public Finances ([123])

Revenues from these taxes grew in 2001 and 2002; however, the revenues experienced a decline in the subsequent two years. In 2005 the revenues grew on average at 1% per annum. During the time period under analysis, the average annual growth rate was about 0.0%.

The correlation with GDP per capita is negative, with a correlation factor of -64.0%.

The combined revenues obtained from these two types of excise duties are not sufficient to match Sweden's 2005 EU Budget contribution, as shown in Figure 133.

Figure 133 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: SWEDEN



[123] Address: www.sweden.gov.se , Internal documents provided to us by Ms Anna Danielsson anna.danielsson@finance.ministry.se

26.5 Tax on Corporate Profits

Table 152 shows the level of revenues obtained by Sweden since 2000 through corporate profit tax.

Table 152 – Corporate Profit Tax revenues: SWEDEN

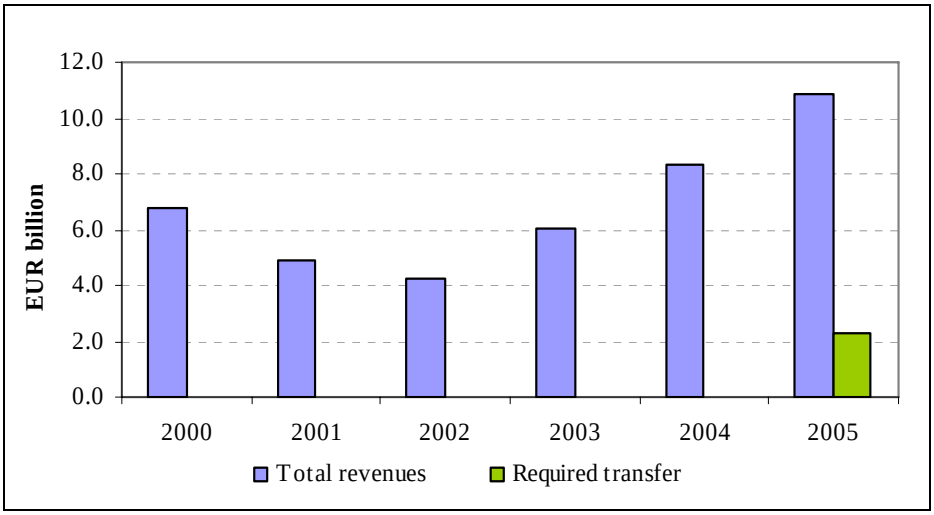
Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	6,791	4,916	4,255	6,007	8,334	10,874
% annual change		-27.6%	-13.5%	41.2%	38.7%	30.5%

Source: Swedish Ministry of Finance, Division for Public Finances ([124])

Since 2003, revenues from corporate profit tax showed high annual growth rates, with a peak observed in 2003 (41.2%). The average annual growth rate was about 13.9%. Revenues from this tax have been growing in line with GDP per capita and have a correlation estimate equal to about 89.3%.

A share of 21.2% of the corporate tax revenues is required in order to match Sweden's recent EU Budget contribution. This is shown in Figure 134.

Figure 134 – Total revenues from Corporate Profit Tax vs. required transfer: SWEDEN



[124] Address: www.sweden.gov.se , Internal documents provided to us by Ms Anna Danielsson anna.danielsson@finance.ministry.se

27 United Kingdom

27.1 Summary of results

The United Kingdom's total GDP in 2005 was approximately EUR 1,790bn. According to the EU 2005 Budget, the level of annual funding to be provided by the UK to the EU net of Traditional Resources and the UK rebate was about EUR 9,630m (equivalent to about 0.5% of its GDP).

Table 153 shows GDP (both in absolute and per capita terms) and consumer expenditure for the UK since 2000.

Table 153 – GDP and Consumer Expenditure: UNITED KINGDOM

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	1,564,001	1,603,208	1,667,807	1,604,497	1,733,603	1,790,671
GDP per capita (EUR)	26,605	27,173	28,164	26,995	29,039	29,815
Consumer Expenditure per capita (EUR)	22,500	23,200	24,200	23,200	24,900	25,700

Source: Eurostat

On average, total GDP grew by about 2.8% per annum. GDP per capita grew by about 2.4% per annum. Consumption expenditure grew at approximately 2.8% on average per annum.

Table 154 summarises the results of our assessment of the candidate taxes for the UK. A detailed analysis of each tax is presented in the remainder of this section.

Table 154 – Summary of the assessment of candidate taxes: UNITED KINGDOM

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	5.3%	91.0%	9.0%	-1.4%
Duty on motor fuel	0.7%	61.7%	28.2%	-24.7%
Duties on alcohol and tobacco	3.9%	61.2%	45.2%	-23.7%
Corporate profit tax	0.1%	-13.0%	19.6%	-12.5%

Source: Deloitte calculation

The revenues from VAT and excise duties on alcohol and tobacco have been growing during the analysis period. The revenues from the other two taxes considered in this analysis, excise duty on motor fuel and corporate profit tax overall have remained constant since 2000.

Only VAT revenues appear to be highly correlated to movements in per capita GDP. All taxes, each on its own, provide a revenue stream sufficient to match the UK's recent contribution to the EU budget.

The required share of VAT revenues is 1.4 percentage points lower than the European average. The required shares of revenues from duties on motor fuel, alcohol and tobacco and corporate profit tax are significantly lower than the average shares across the EU 27 countries (respectively 24.7, 23.7 and 12.5 percentage points lower).

27.2 VAT

Table 155 shows the level of VAT revenues obtained by the UK since 2000. It also provides a breakdown of revenues by origin, i.e. VAT obtained from domestic exchanges and VAT obtained from imports.

Table 155 – VAT Revenues: UNITED KINGDOM

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	82,490	85,573	89,263	92,810	101,037	106,809
% annual change		3.7%	4.3%	4.0%	8.9%	5.7%
VAT on domestic exchanges	60,929	60,705	65,576	70,105	77,768	82,387
VAT on imports	21,560	24,868	23,687	22,706	23,269	24,421

Source: HM Revenue and Customs ([125])

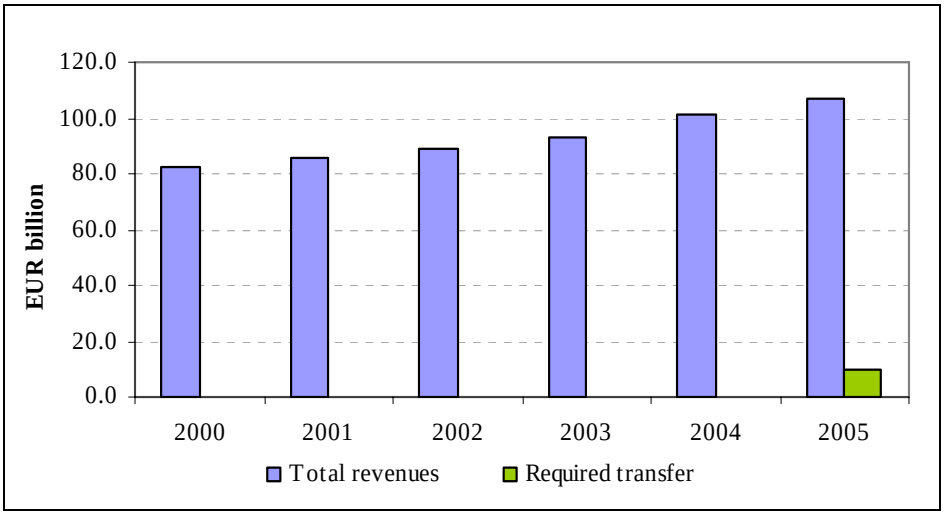
The average annual change in VAT revenues was 5.3%. Revenues from domestic VAT account for about 74.7% on average of total VAT revenues. Revenues from VAT were growing over time and are also correlated with movements in GDP per capita. The estimated correlation coefficient is about 91.0%.

In order to raise a level of revenues equal to the UK's 2005 EU Budget contribution, about 9.0% of total VAT revenues would need to be dedicated to the new EU tax. If only domestic VAT were to be considered, then about 11.7% of these revenues would need to be transferred to the EU.

Assuming all VAT revenues are raised at the standard rate of 17.5%, the required rate for the new EU tax would be approximately 1.6%, while the modified MS VAT rate would be 15.9%.

Figure 135 shows the variation in VAT revenues compared with the transfer required to match the UK's recent contribution to the EU budget.

Figure 135 – Total VAT revenues vs. required transfer: UNITED KINGDOM



[125] HM Revenue and Customs (www.hmrc.gov.uk)

27.3 Excise Duty on Motor Fuel

Table 156 shows the level of revenues obtained by the UK since 2000 through an excise duty on motor fuel.

Table 156 – Motor Fuel Excise Duty revenues: UNITED KINGDOM

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	32,933	33,091	32,058	32,395	33,329	34,102
% annual change		0.5%	-3.1%	1.0%	2.9%	2.3%

Source: HM Revenue and Customs ([126])

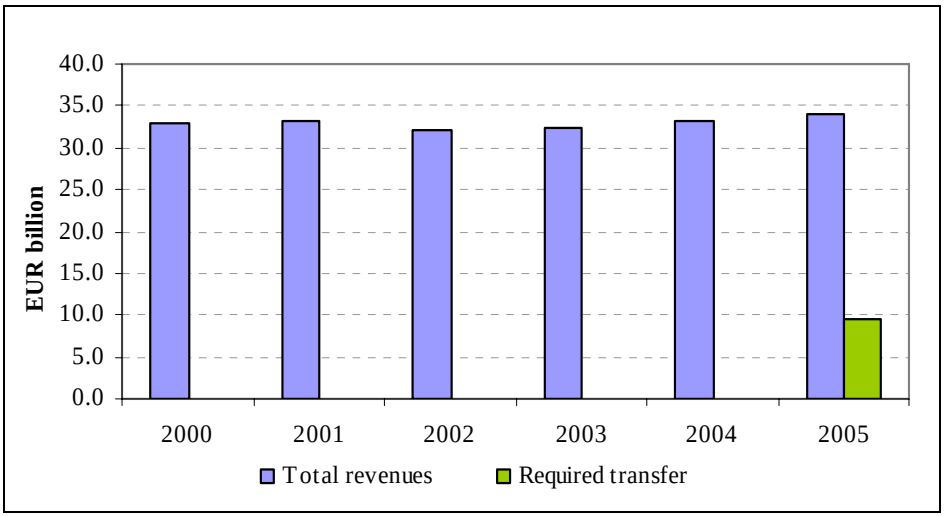
The average annual change in revenues from motor fuel excise duties was 0.7%. However, while revenues were either constant or decreasing until 2002, they showed positive growth rates since then. This fluctuating trend, however, has resulted in the correlation with GDP per capita being not very high, with a correlation factor of 61.7%.

In order to raise a level of revenues equal to the UK's 2005 EU budget contribution, about 28.2% of the revenues from this tax would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 514 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 187 per 1000 litres would need to be transferred to the EU.

Figure 136 shows the variation in total fuel excise revenues compared with the transfer required to match the UK's 2005 contribution to the EU Budget.

Figure 136 – Total revenues from Motor Fuel Excise Duty vs. required transfer: UNITED KINGDOM



[126] HMRC, *ibid.*

27.4 Excise Duty on Alcohol and Tobacco

Table 157 shows the level of revenues obtained by the UK since 2000 through excise duties on alcohol and tobacco.

Table 157 – Alcohol and Tobacco Excise Duties revenues: UNITED KINGDOM

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	17,718	20,596	20,757	21,203	21,265	21,285
% annual change		16.2%	0.8%	2.1%	0.3%	0.1%
Alcohol	9,404	9,410	9,415	9,421	9,427	9,433
Tobacco	8,314	11,187	11,342	11,782	11,838	11,852

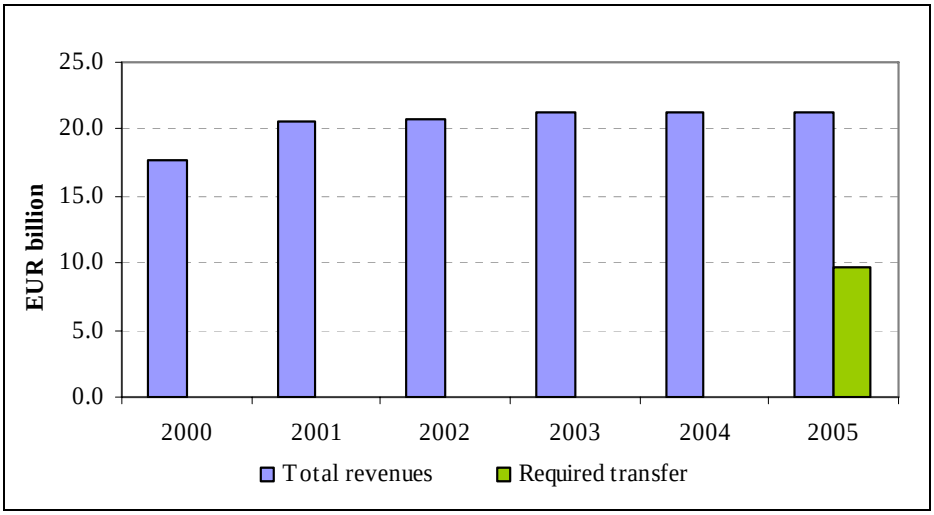
Source: HM Revenue and Customs ([127])

Apart from very high growth shown in 2001, driven by an increase in tobacco excise duty revenues, the combined revenues from these taxes showed modest rates of growth for the remainder of the analysis period. Overall, the average annual growth rate was 3.9%. Correlation with GDP per capita was low, and in line with the correlation shown by motor fuel excise duty revenues. The estimated correlation factor is about 61.2%.

In order to raise a level of revenues equal to the UK's 2005 EU budget contribution, about 45.2% of the revenues from these taxes would need to be dedicated to the new EU tax.

Figure 137 shows the variation in total alcohol and tobacco excise duty revenues compared with the transfer required to match the UK's contribution to the EU budget.

Figure 137 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: UNITED KINGDOM



[127] HMRC, *ibid.*

27.5 Tax on Corporate Profits

Table 158 shows the level of revenues obtained by the UK since 2000 through corporate profit tax.

Table 158 – Corporate Profit Tax revenues: UNITED KINGDOM

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	50,203	47,423	46,877	42,887	41,124	49,207
% annual change		-5.5%	-1.2%	-8.5%	-4.1%	19.7%

Source: HM Revenue and Customs ([128])

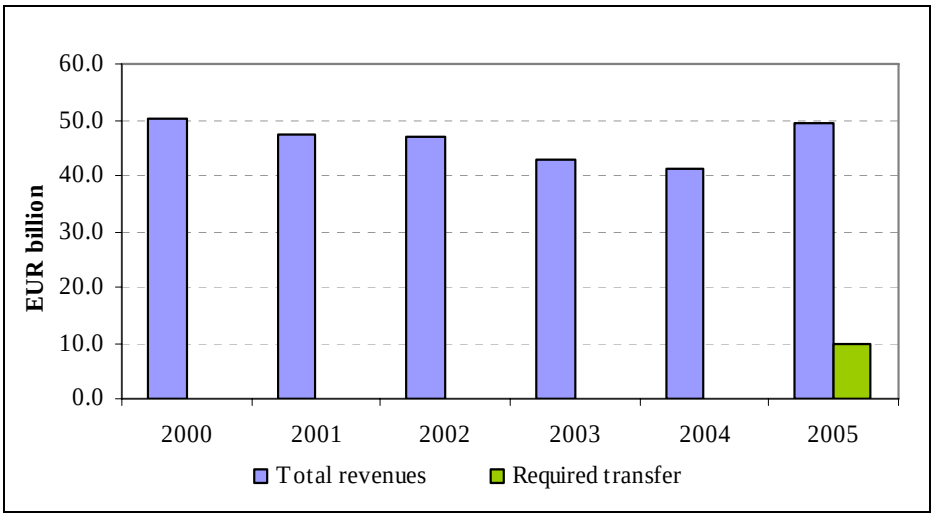
Revenues from corporate profit tax have declined since the beginning of the period under analysis. Falling revenues were probably caused by several corporate tax reforms that came into force during this time period. From 1999/00 the main corporate tax rate was cut from 31% to 30% and the rate for small companies was cut from 21% to 20%. Additionally, Advance Corporation Tax was abolished. In 2002 small companies' rate was cut further to 19% and the starting rate was cut from 10% to 0% ([129]).

However, the large increase shown in 2005 resulted in the overall average annual growth rate being about 0.1%. For this reason, the revenues from this tax show no correlation with GDP per capita, leading to a correlation factor of -13.0%.

In order to raise a level of revenues equal to the UK's 2005 EU budget contribution, about 19.6% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 138 shows the variation in corporate profit tax revenues compared with the transfer required to match the UK's 2005 contribution to the EU budget.

Figure 138 – Total revenues from Corporate Profit Tax vs. required transfer: UNITED KINGDOM



[128] HMRC, *ibid.*

[129] Devereux, Griffith, Klemms (2004) *Why has the UK corporation tax raised so much revenue?*, IFS Working Paper, The Institute for Fiscal Studies.

28 Bulgaria

28.1 Summary of results

Bulgaria's total GDP in 2005 was approximately EUR 21bn. In 2005, Bulgaria was not part of the European Union and therefore did not contribute to the EU Budget. For this analysis, we will assume a contribution equal to the average contribution (net of traditional resources and the UK rebate) of the other member states, namely 0.8% of total GDP. This assumption implies that the level of annual funding provided by Bulgaria would have been EUR 172m.

Table 159 shows GDP (both in absolute and per capita terms) and consumer expenditure for Bulgaria since 2000.

Table 159 – GDP and Consumer Expenditure: BULGARIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	13,704	15,250	16,589	17,725	19,595	21,448
GDP per capita (EUR)	1,673	1,923	2,102	2,259	2,512	2,764
Consumer Expenditure per capita (EUR)	1,500	1,700	1,800	2,000	2,200	2,500

Source: Eurostat

On average, total GDP grew by about 9.4% per annum. GDP per capita grew by about 10.6% per annum. Consumption expenditure grew at approximately 10.8% on average per annum.

Table 160 summarises the results of our assessment of the candidate taxes for Bulgaria. A detailed analysis of each tax is presented in the remainder of this section.

Table 160 – Summary of the assessment of candidate taxes: BULGARIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	20.1%	94.4%	6.5%	-3.9%
Duty on motor fuel	n/a	n/a	n/a	
Duties on alcohol and tobacco	n/a	n/a	n/a	
Corporate profit tax	8.7%	90.6%	26.7%	-5.4%

Source: Deloitte calculation

The revenues from VAT and corporate profit tax have both been growing during the period under analysis. VAT revenues show the highest rate of growth of 20.1% annually, while corporate profit tax revenues have been growing at about 5.5% annually.

Both revenues streams appear to be highly correlated with Bulgaria’s GDP per capita, which was also growing at a fast pace. Additionally, both revenue streams seem to provide sufficient revenues to match Bulgaria’s estimated EU Budget contribution.

The required shares of revenues from VAT and corporate profit tax are both lower than the average required shares across the EU 27 countries. In particular, the required share of VAT revenues is 3.9 percentage points lower than the average while the required share from corporate profit tax is 5.4 percentage points lower than the European average.

28.2 VAT

Table 161 shows the level of VAT revenues obtained by Bulgaria since 2000.

At the time of writing no VAT data has been received from Bulgaria. All data used in the below analysis has been obtained from Eurostat.

Table 161 – VAT Revenues: BULGARIA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	n/a	1,536	1,743	2,129	2,657
% annual change		n/a	n/a	13.4%	22.2%	24.8%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: Eurostat ([130])

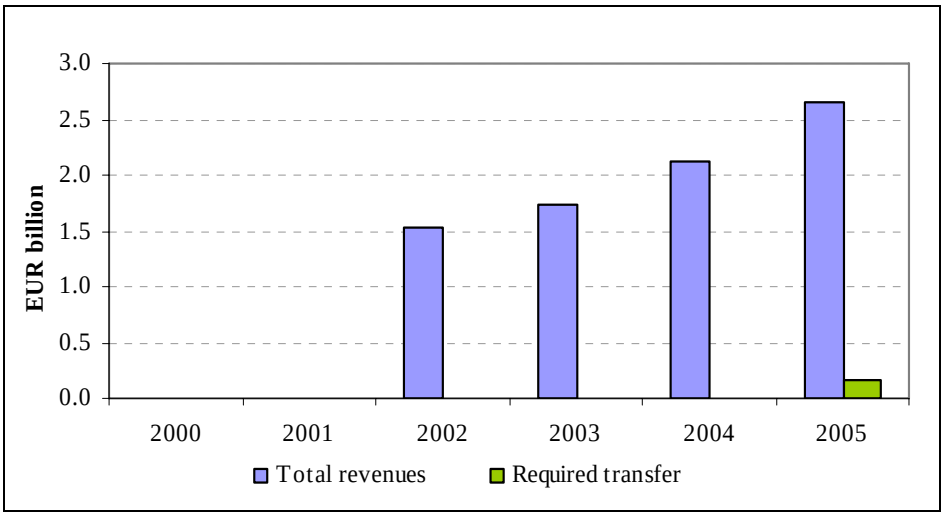
The average annual change in VAT revenues was 20.1%. Since 2003 revenues from this tax have been growing at high rates and are also highly correlated with movements in GDP per capita. The estimated correlation is equal to about 99.5%.

In order to raise a level of revenues equal to Bulgaria's estimated EU Budget contribution, about 6.5% of total VAT revenues would need to be dedicated to the new EU tax.

Assuming all VAT revenues are raised at the standard rate of 20%, the rate needed for the EU tax would be about 1.3%. This would yield a modified MS VAT rate of 18.7%.

Figure 139 shows the variation in VAT revenues compared with the transfer required to match Bulgaria's estimated contribution to the EU Budget.

Figure 139 – Total VAT revenues vs. required transfer: BULGARIA



[130] Eurostat, Government Statistics, *Main national accounts tax aggregates*, http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/gov/gov_a&language=en&product=EU_MASTER_government&root=EU_MASTER_government&scrollto=0

28.3 Excise Duty on Motor Fuel

At the time of writing no data on revenues from motor fuel excise duty has been received from Bulgaria.

28.4 Excise Duty on Alcohol and Tobacco

At the time of writing no data on revenues from alcohol and tobacco excise duties has been received from Bulgaria.

28.5 Tax on Corporate Profits

Table 162 shows the level of revenues obtained by Bulgaria since 2000 through corporate profit tax.

Table 162 – Corporate Profit Tax revenues: BULGARIA

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	n/a	549	597	591	643
% annual change		n/a	n/a	8.8%	-1.0%	8.7%

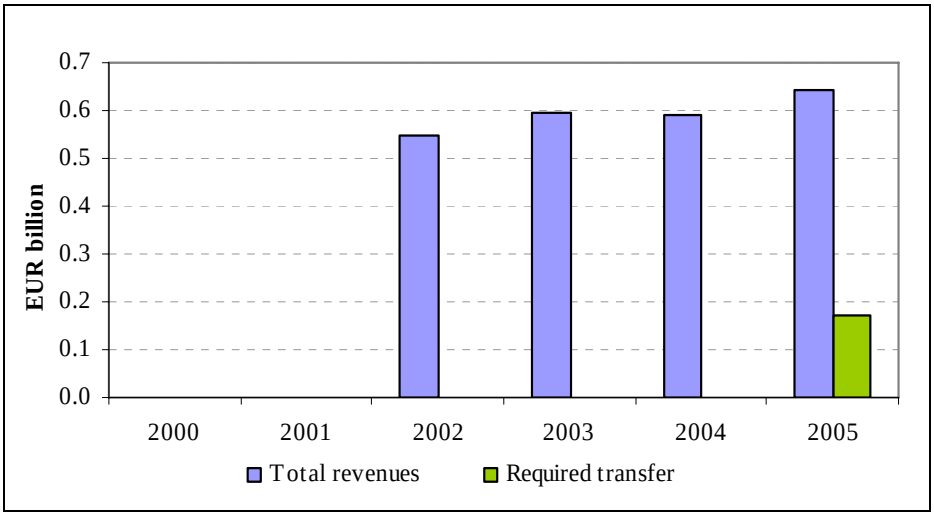
Source: Eurostat ([131])

Revenues from corporate profit tax fluctuated since 2002. In 2003 revenues increased by 8.8%, but declined by 1.0% in the subsequent year. In the last year of the observation period, revenues experienced positive growth again of 8.7% annually. Revenues from this tax have been growing in line with GDP per capita: this is shown by the high level of correlation, equal to about 90.6%.

In order to raise a level of revenues equal to Bulgaria's estimated EU Budget contribution, about 26.7% of the revenues from this tax would need to be dedicated to the new EU tax.

Figure 140 shows the variation in corporate profit tax revenues compared with the transfer required to match Bulgaria's estimated contribution to the EU Budget.

Figure 140 – Total revenues from Corporate Profit Tax vs. required transfer: BULGARIA



[131] Eurostat, Government Statistics, *Main national accounts tax aggregates*, http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/gov/gov_a&language=en&product=EU_MASTER_government&root=EU_MASTER_government&scrollto=0

29 Romania

29.1 Summary of results

Romania's total GDP in 2005 was approximately EUR 79bn. In 2005, Romania was not part of the European Union and therefore did not contribute to the EU Budget. For this analysis, we will assume a contribution equal to the average contribution (net of Traditional Own Resources and the UK rebate) of the other member states, namely 0.8% of total GDP. This assumption implies that the level of annual funding provided by Romania would have been EUR 635m.

Table 163 shows GDP (both in absolute and per capita terms) and consumer expenditure for Romania since 2000.

Table 163 – GDP and Consumer Expenditure: ROMANIA

GDP	2000	2001	2002	2003	2004	2005
Total GDP (EUR million)	40,346	44,904	48,442	52,613	60,818	79,314
GDP per capita (EUR)	1,797	2,002	2,219	2,416	2,801	3,662
Consumer Expenditure per capita (EUR)	1,500	1,700	1,900	2,100	2,400	3,200

Source: Eurostat

On average, total GDP grew by about 14.8% per annum. GDP per capita grew by about 15.6% per annum. Consumption expenditure grew at approximately 16.6% on average per annum.

Table 164 summarises the results of our assessment of the candidate taxes for Romania. A detailed analysis of each tax is presented in the remainder of this section.

Table 164 – Summary of the assessment of candidate taxes: ROMANIA

Tax	Average annual change	Correlation with GDP per capita	Share of revenue required	Difference from EU 27 average
VAT	36.3%	98.3%	9.8%	-0.6%
Duty on motor fuel	52.7%	90.5%	42.9%	-10.0%
Duties on alcohol and tobacco	36.3%	93.3%	64.5%	-4-4%
Corporate profit tax	28.8%	91.2%	29.4%	-2.7%

Source: Deloitte calculation

The revenues from all the taxes considered have been growing at a high rate during the period under analysis. The revenues from excise duty on motor fuel show the highest rate of growth, about 52.7%.

All revenues streams appear to be highly correlated with movements in the country's GDP per capita, which was also growing at a fast pace.

Finally, all taxes appear to be able to provide a sufficient level of revenues to cover the required contribution of Romania to the EU budget. The required share of revenues from VAT is 0.6 lower than the EU 27 average. The shares from the other tax candidates are also below the EU average, more specifically, the shares from duties on motor fuel, duties on alcohol and tobacco and corporate profit tax are respectively 10.0, 4.4 and 2.7 percentage points lower than the EU 27 average.

29.2 VAT

Table 165 shows the level of VAT revenues obtained by Romania since 2000. The Romanian National Statistical Office, which provided the information used for this analysis, was unable to provide the required detail on the breakdown of VAT revenues into their domestic and non-domestic components.

Table 165 – VAT Revenues: ROMANIA

VAT (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	1,405	2,051	3,005	3,955	4,599	6,496
% annual change		45.9%	46.5%	31.6%	16.3%	41.3%
VAT on domestic exchanges	n/a	n/a	n/a	n/a	n/a	n/a
VAT on imports	n/a	n/a	n/a	n/a	n/a	n/a

Source: Institutul National de Statistica ([132])

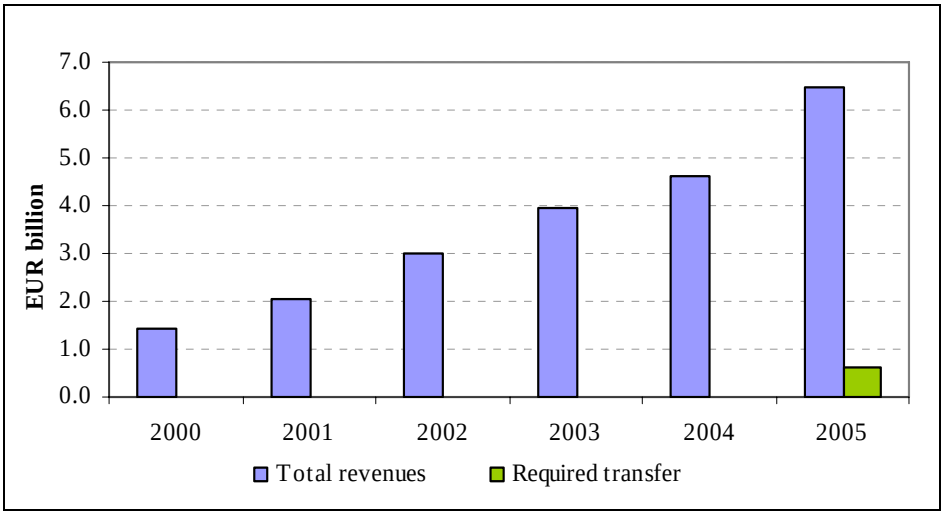
VAT revenues grew at a high rate during the analysis period, with only a temporary relative slowdown in 2004. The average annual change was about 36.3%. Revenues are highly correlated with GDP per capita, which also grew at a fast pace in the period 2000-2005. The estimated correlation coefficient is about 98.3%.

In order to raise a level of revenues equal to Romania's estimated contribution to the EU budget, about 9.8% of total VAT revenues would need to be dedicated to the new tax.

Assuming all VAT revenues are raised at the standard rate of 19%, the required rate for the new EU tax would be 1.9%, while the modified MS VAT rate would be 17.1%.

Figure 141 shows the variation of VAT revenues compared with the transfer required to match Romania's estimated contribution to the EU budget.

Figure 141 – Total VAT revenues vs. required transfer: ROMANIA



[132] Institutul National de Statistica (http://www.insse.ro Contact: Ioan Goreac, Director)

29.3 Excise Duty on Motor Fuel

Table 166 shows the level of revenues obtained by Romania since 2001 through an excise duty on motor fuel. The Romanian National Statistical Office was unable to provide information for the year 2000.

Table 166 – Motor Fuel Excise Duty revenues: ROMANIA

Motor Fuel Excise Duty (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	330	427	1,024	1,356	1,479
% annual change		n/a	29.4%	140.0%	32.4%	9.1%

Source: Institutul National de Statistic ([133])

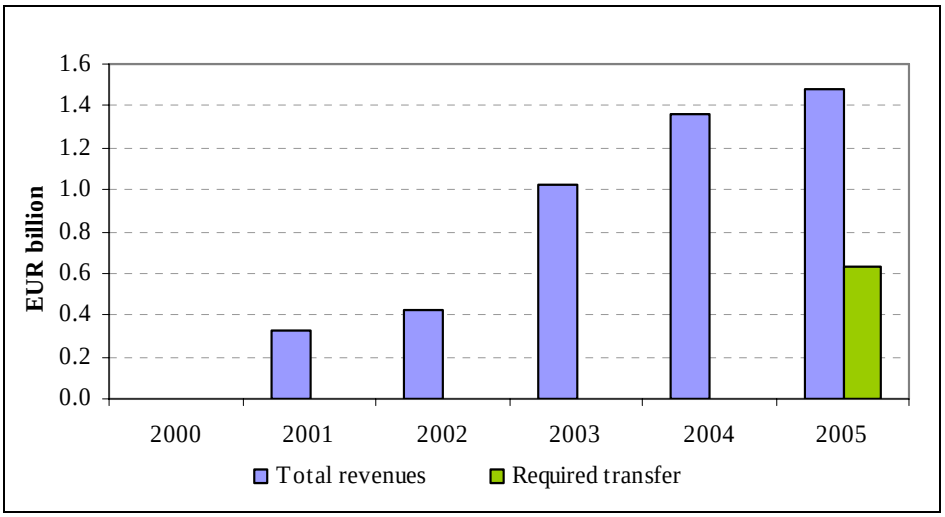
The average annual change in revenues from motor fuel excise duties was high, at about 52.7%. This was mainly due to the large increase in 2003 (140.0%).The revenues were correlated with movements in GDP per capita, with an estimated correlation rate of about 90.5%.

In order to raise a level of revenues equal to Romania's estimated EU budget contribution, about 42.9% of total motor fuel excise duty revenues would need to be dedicated to the new EU tax.

Given that the average motor fuel excise duty is approximately EUR 361 per 1000 litres of fuel (calculated as the average of the duty on leaded and unleaded petrol, and diesel fuel), about EUR 155 per 1000 litres would need to be transferred to the EU.

Figure 142 shows the variation in total fuel excise revenues compared with the transfer required to match Romania's estimated contribution to the EU budget.

Figure 142 – Total revenues from Motor Fuel Excise Duty vs. required transfer: ROMANIA



[133] Institutul National de Statistica, *ibid.*

29.4 Excise Duty on Alcohol and Tobacco

Table 167 shows the level of revenues obtained by Romania since 2001 through excise duties on alcohol and tobacco. As for the excise duty on motor fuel, the Romanian National Statistical Office was unable to provide information for the year 2000.

Table 167 – Alcohol and Tobacco Excise Duties revenues: ROMANIA

Alcohol and Tobacco Excise Duties (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	n/a	292	415	663	818	983
% annual change		n/a	41.9%	59.9%	23.4%	20.1%
Alcohol	n/a	65	96	166	194	241
Tobacco	n/a	227	318	497	625	742

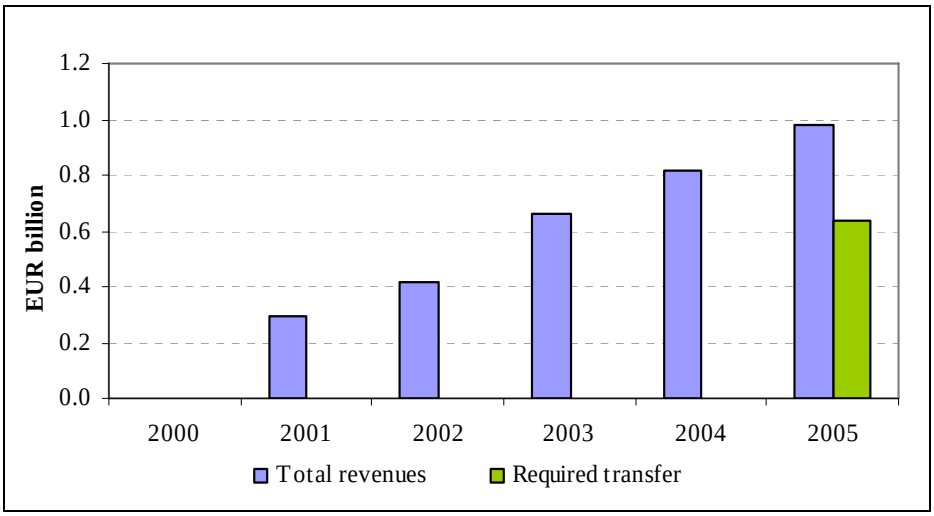
Source: Institutul National de Statistica ([134]).

Revenues from these taxes showed high annual growth rates, with the highest value (59.9%) recorded in 2003. The average annual growth rate has been about 36.3%. The correlation with GDP per capita is also high, with an estimated coefficient of about 93.3%.

In order to raise a level of revenues equal to Romania's estimated EU budget contribution, about 64.5% of total alcohol and tobacco excise duty revenues would need to be dedicated to the new EU tax.

Figure 143 shows the variation in total alcohol and tobacco excise duty revenues compared with the transfer required to match Romania's estimated contribution to the EU budget.

Figure 143 – Total revenues from Alcohol and Tobacco Excise Duties vs. required transfer: ROMANIA



[134] Institutul National de Statistica, *ibid.*

29.5 Tax on Corporate Profits

Table 168 shows the level of revenues obtained by Romania since 2000 through corporate profit tax.

Table 168 – Corporate Profit Tax revenues: ROMANIA

Corporate Profit Tax (EUR million)	2000	2001	2002	2003	2004	2005
Total revenues	636	798	1,067	1,405	2,152	2,156
% annual change		25.4%	33.7%	31.8%	53.1%	0.2%

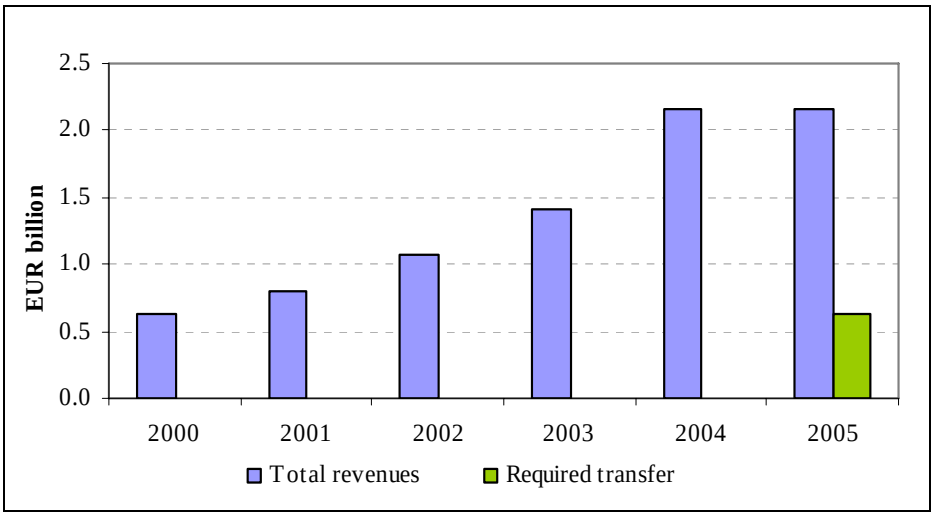
Source: Institutul National de Statistica ([135])

Revenues from corporate profit tax showed very high annual growth rates, with a peak observed in 2004 (about 53.1%). However, in the last year of the analysis period, the revenues were constant with respect to the previous year. The average annual growth rate was about 28.8%. Revenues from this tax show correlation with movements in GDP per capita, with an estimated correlation factor of about 91.2%.

In order to raise a level of revenues equal to Romania's estimated EU budget contribution, about 29.4% of total revenues from this tax would need to be dedicated to the new EU tax.

Figure 144 shows the variation of corporate profit tax revenues compared with the transfer required to match Romania's estimated contribution to the EU budget.

Figure 144 – Total revenues from Corporate Profit Tax vs. required transfer: ROMANIA



[135] Institutul National de Statistica, *ibid.*