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Environmental taxes at industry level; quality improvement

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Final report

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ENVIRONMENTAL TAXES AT INDUSTRY LEVEL; QUALITY IMPROVEMENT

1. Introduction

Tax revenues are the main source of income for the general government. One of the duties of the government is to take care of public goods like the environment. Environmentally related taxes charge activities or products that are harmful to the environment (European Commission, 2001). The tax base is a physical unit (or a proxy of it) of something that has a proven, specific negative impact on the environment (SEEArev. Par 4.147, 2012). This way the consumer is encouraged to use more environmentally friendly products that are free of charges and to restrain harmful activities for the environment and the purchase of environmentally damaging products.

Environmentally related tax statistics provide insight in the national economies' tax revenues in a breakdown by economic sectors/industries. Data on environmental taxes are compiled in a way that is compatible with the system of national accounts. By using the same concepts and definitions as the national accounts data are complete and free of double counting and internationally comparable. In July 2011, an European regulation on environmental economic accounts has been adopted in order to provide a framework for the development of various types of environmental accounts. Environmentally related taxes by economic activity are one of the first three modules, included in Annex II to the regulation. Therefore it is of main importance to improve the existing data and fill the remaining gaps for this module.

At present, Statistics Netherlands produces statistics on environmentally related taxes for energy taxes, pollution taxes, resource taxes and transport taxes. Environmental taxes and fees are directly derived from the national accounts. Information about which industries and sectors are paying the taxes is directly derived from the supply and use tables from the national accounts. However the allocation at industry level is made by using distribution formula and does not correspond with direct sources on environmental taxes by sector.

The aim of the project is to improve the breakdown of the environmental taxes and environmental fees by economic sectors as delineated in the ESA95. The main data sources will be investigated. These are the environmental expenditure data, the Dutch national accounts and some additional data sources on the use of physical units or on activities that have a proven negative impact on the environment and are the tax bases in the environmentally related tax statistics framework. Also it will be investigated how the results can be implemented in the national accounts. Available data sources that are of approved quality will be implemented and a new time series will be compiled for 1995-2008.

This report describes the methods that are used to improve the breakdown of environmentally related taxes by economic activities. The general outline of the report is as follows. After an introduction of the project in chapter 1, chapter 2 starts with a description of the Dutch environmental taxes and fees system. For all the Dutch environmentally related taxes and charges that we have examined in this quality assessment, we will discuss the operated methodology and results in chapter 3. A proposal for the dissemination strategy of results that are of approved quality is done in chapter 4. Finally, chapter 5 contains the conclusions on the quality improvement for environmental taxes at sector level. All cited literature is referred to in chapter 6. Chapter 7 contains the tables showing the results of the quality assessment.

2. Dutch environmental taxes and fees system

In the Netherlands we consider environmental taxes and environmental fees. Both are part of the same statistics at Statistics Netherlands. Major environmental taxes in the Netherlands are energy tax, excise duties on mineral oils, tax on passenger cars and motorcycles and motor vehicle tax. Levies on water pollution and sewerage charges are the most important environmental fees that are paid in the Netherlands. Part of the effort in this project is directed at quality improvement of the breakdown of environmental taxes and fees by industry.

2.1 Definitions

According to the statistical guide the following difference between taxes versus charges or fees apply (European Commission, 2001):

Taxes:

In the national accounts, taxes are defined as compulsory, unrequited payments to general government. Taxes are unrequited in the sense that benefits provided by government to taxpayers are not in proportion to their payments.

Charges or fees:

The OECD defines charges/fees as compulsory, requited payments to either general government or to bodies outside general government, such as for instance an environmental fund or a water management board. Charges/fees are seen as payments for services.

2.2 Environmental tax data DG Environment and National Tax List DG Taxation

Starting from 2009, national lists of taxes are available on DG Taxation's website. The National List of Taxes contains data on revenue by individual tax in the EU Member States (and Norway) from 1995 to 2008. The data cover all main taxes

including the environmentally related taxes (total by tax category) and are supplied to Eurostat by the National Statistical Offices, following the ESA95 classification.

In the 2010 data collection for environmentally related taxes by industries, the National Statistical Offices were asked to consult these lists in order to compare and eventually adjust the tax basis that was included when reporting to the questionnaire of environmentally related taxes by economic activities. Although one might think that total revenues by tax category supplied to DG Environment and supplied to DG Taxation should be the same for the environmentally related taxes, this is not automatically the case. Indeed, for the Netherlands there is a discrepancy between the environmental taxes that are distinguished as part of the data collection for DG Environment and the environmental taxes according to the National Tax List.

As Statistics Netherlands, for the Environmental taxes statistics, we follow the concepts and definitions of the statistical guide "Environmental taxes" of the European Commission (2001). The problem is that by interpreting these guidelines we apply a narrower definition of a tax than the taxes distinguished in the National Tax List. For instance the water pollution tax and sewerage charges are included in the Dutch National Tax List as environmental taxes and social contributions. When reporting to the questionnaire of environmentally related taxes by economic activities we consciously excluded the data of these environmental 'fees'. According to our interpretation these two fees do not comply with the definitions of an environmental tax as stated in the statistical guide as these fees can be seen as payments for services.

2.3 Current estimate of environmental taxes and fees

National accounts have their own classification of taxes. Three main categories of taxes are distinguished: 1) taxes on production and imports, 2) current taxes on income and wealth and 3) capital taxes. Taxes on production and imports cover a) taxes payable when goods and services are produced or imported known as taxes on products and b) taxes on the ownership or use of assets used in production and on the labour employed known as other taxes on production. Taxes on household income and wealth are taxes that are paid every tax period, are described as current taxes on income, wealth, etc. The third category of taxes covers capital taxes which are those levied infrequently and irregularly on the value of assets and those levied on capital transfers (SEEA, 2003).

The Dutch environmental taxes and fees belong to the first and second category. Table 1 and 2 show which environmental taxes and fees are distinguished in each category.

Table 1 Taxes on production and imports involved in the Dutch environmental accounts.

Taxes on products	Other taxes on production
Excise duty on petrol (Accijns op benzine)	Motor vehicle tax (Motorrijtuigenbelasting)
Excise duty on other mineral oils (Accijns op overige minerale oliën)	Levies on water pollution (Zuiveringsheffing)
Tax on groundwater (Grondwaterbelasting)	Sewerage charges (Rioolrechten)
Tax on fuel (Brandstofbelasting)	Other environmental fees (Overige milieuheffingen)
Waste tax (Afvalstoffenbelasting)	
Energy tax (Energiebelasting)	
Flight tax (Vliegbelasting)	
Tax on passenger cars and motorcycles (Belasting op personenauto's en motorrijtuigen)	

Table 2 Current taxes on income and wealth involved in the Dutch environmental accounts.

Taxes on income	Other current taxes
	Motor vehicle tax (Motorrijtuigenbelasting)
	Levies on water pollution (Zuiveringsheffing)
	Sewerage charges (Rioolrechten)
	Other environmental fees (Overige milieuheffingen)

The current estimate of the total environmental taxes and fees are based on the values supplied by the government. In the current methodology, the breakdown of the taxes on production and imports by economic industry takes place in two steps. First, for each industry (according to the breakdown in the national accounts) a total value for production, consumption and value added is estimated. This is done in the supply and use framework underlying the National accounts. Taxes on products are included. The second step of the current methodology for the taxes on production and imports differs for on one hand taxes on products and on the other hand other taxes on production. Therefore both methodologies hereafter will be discussed separately. Current taxes on household income and wealth can be derived directly from the tax data supplied by the government. The total values of both taxes on products and other taxes on production are independently estimated too, based on the values supplied by the government.

2.3.1 Taxes on products

In the national accounts framework for each group of products several estimates from different sources are available for the total supply and use, including environmental taxes. Any differences between the estimates of supply and use for each product class are then corrected. The distribution of taxes on the various economic sectors however is not examined separately in this process.

Afterwards an input/output table will be created. At this moment it is possible to separately distribute taxes into the involved economic sectors. Currently, there is little known about the distribution of environmental taxes on products (table 1) into the economic sectors. By default, the distribution of taxes on products into the economic sectors is based on the production of each economic sector. The assumption is that the more production the more tax you have to pay.

For example let us look at the tax on passenger cars and motorcycles. The tax on passenger cars and motorcycles refers to only two types of products (cars and motorcycles). The data for these products are delivered including tax on passenger cars and motorcycles. Generally more tax is levied on cars as an investment than on cars intended for consumption, and this will be corrected.

2.3.2 Other taxes on production

On the income side, value added corresponds to the income generated by primary factors of production, labour and capital plus any net taxes on production. Other taxes on production are estimated separately by economic sector as part of the value added. As already mentioned the total value of other taxes is independently estimated, based on the values supplied by the government. Any differences between both estimates are then corrected. The distribution of other taxes on production into the economic sectors could be corrected at this moment. Afterwards the input/output table will be created.

3. Methodology and results

Different environmental taxes and fees have been investigated in this project. The main focus of the quality assessment was to see if the breakdown over economic activities could be improved. This improvement preferably has been done with autonomous information for the individual years. Secondly, particular attention has been given to discriminate between revenues paid by non-residents and revenues paid by residents.

The quality assessment was carried out at NACE Rev. 2, unless otherwise stated, to facilitate comparison of data from the current methodology and data from the new methodology.

At the end of 2011, it was the first time that the Dutch data were reported at NACE Rev. 2, as part of the 2011 regular data collection for environmentally related taxes by economic activities.

3.1 Distribution over industries

3.1.1 Levies on water pollution (Zuiveringsheffing)

Levies on water pollution are charged by the central and local government in order to protect surface waters. The chargeable event is the direct or indirect discharging of waste, pollutants or harmful substances into surface water or sources with a direct or indirect connection to a purification plant under administration of a water board. The levies are paid by the discharger, both industries and households discharging waste water, pollutants or harmful substances directly or indirectly into surface water. Revenues from this environmental fee are used directly to finance the environmental measures by waste water treatment plants like the sanitation of waste water and purification of surface water. All results on levies on water pollution presented in this report are at NACE Rev. 1.1. In the course of 2012 they will become available at NACE Rev. 2.

3.1.1.1 Data sources

At present we rely on national accounts information to estimate the breakdown of levies on water pollution by economic activity. However, at Statistics Netherlands a direct source for the amount of levies on water pollution paid by the different industries is available. As part of a survey on environmental protection expenditure Statistics Netherlands yearly launches a questionnaire to enterprises that includes a question on levies paid on water pollution. Implementation of the existing environmental expenditure data on levies on water pollution in the environmental taxes and fees statistics would harmonize the data on levies on water pollution paid by enterprises. Furthermore a direct source instead of a distribution key would be used which would improve the data quality.

3.1.1.2 Methodology

The questionnaire includes data for producers from the industries mining and quarrying, manufacturing and electricity, gas and water supply (NACE 10-41; NACE Rev. 1.1.). For these NACE categories we adopted the existing environmental expenditure data on levies on water pollution. The total amount of levies on water pollution paid by consumers and producers is derived from the information provided by the government. For a substantial part of the industries with NACE 10-41 information on levies on water pollution only is available for an aggregated level of industries. We further disaggregated these levies by using information on the amount of waste water produced by industry. If this information was not available for a specific industry we used information on employment by industry to further disaggregate. After compiling data for NACE 10-41 we determined the total amount of levies on water pollution paid by the other industries

not being NACE 10-41. We did this by subtracting the total for NACE 10-41 from the producers' total. As described earlier we further disaggregated the levies for the individual NACE categories by combining information on waste water by industry and employment by industry. The assumption here is thus that the amount of waste water (and thus the amount of total revenues paid) is directly proportional to the number of employees.

3.1.1.3 Results and discussion

Annex 1 shows the results of the quality assessment for the levies on water pollution. Annex 2 contains the data according to the current methodology. Following the methodology the levies paid by households remained the same. Comparisons of the two time series reveal minor differences at industry level. Major differences appear for the period 2001-2008. Apparently in the current methodology we did not attribute enough levies to the industry of manufacturing especially from 2005 to 2008. The opposite is the case for the industries agriculture, transport, storage and communication and other community, social, personal service activities. In the same period the share of these industries decreases.

3.1.2 Sewerage charges (Rioolrecht)

Sewerage charges are one of the charges levied by municipalities. This environmental fee is introduced by the municipalities to finance environmental measures like the collection and transport of waste water produced by industries and households as well as the purification of urban waste water or the collection and processing of collected rainwater. For instance the maintenance but also the instalment of new sewers is funded by this environmental fee. Sewerage charges are paid by the users of the sewers. All results on sewerage charges presented in this report are at NACE Rev. 1.1. In the course of 2012 they will be made available at NACE Rev. 2.

3.1.2.1 Data sources

The environmental protection expenditure statistics comprise information on sewerage charges paid by enterprises, apart from data on levies on water pollution. Implementation of this direct data source in the environmental taxes and fees statistics would improve the quality of the data on sewerage charges by industry. In addition similar data in the two statistics would become consistent.

3.1.2.2 Methodology

As already mentioned the environmental expenditure data includes data for the industries with NACE codes 10 to 41 (NACE Rev. 1.1.). In line with the method described earlier for levies on water pollution we adopted the environmental expenditure data on sewerage charges. For corresponding NACE categories we copied the expenditure data. For some industries only aggregated information was available. If this was the case we disaggregated the charges by industry by using

information on employment by industry from the labour accounts. We kept the total revenues from sewerage charges the same as well as the total revenues from industries and the total from households as this information is provided by the government. The total amount of sewerage charges for other producers, not being NACE 10-41, was calculated by subtracting the total for NACE 10-41 from the total revenues paid by producers. We further disaggregated these sewerage charges by industry by making use of information from the labour accounts on the distribution of employment by industry.

3.1.2.3 Results and discussion

Annex 3 and annex 4 show time series for sewerage charges paid by industries and households according to the new methodology (Annex 3) and the current methodology (Annex 4). Comparison of the results of the executed quality assessment for the sewerage charges shows that starting from 2001 the manufacturing industry deserves a considerable smaller share in paid sewerage charges than it gets at present according to the current methodology. Reversely, the amount of sewerage charges paid by services excluding transport and other service activities increased in the new methodology.

3.1.3 Tax on passenger cars and motorcycles (Belasting op personenauto's en motorrijtuigen)

Tax on passenger cars and motorcycles (BPM) is an import or sales tax on motor vehicles. BPM is paid once only, when the vehicle is registered or first used in the Netherlands. The Dutch government sets the tax rate on the purchase of motor vehicles depending on the type of combustion engine. For energy efficient vehicles reduced rates are applied.

3.1.3.1 Data sources

The total of tax on passenger cars and motorcycles (BPM) is based on figures from the tax authority; just like for all other environmental taxes holds. In the integrated system of supply and use tables of the Dutch national accounts this total is allocated to households, export and investments by industries. One could assume that the amount of BPM paid by an industry is proportional to the investments in passenger cars of that industry. In the national accounts we compile figures on how investments in passenger cars are distributed over the industries. These figures are constructed in the national accounts from many data sources each final year (t-3). Implementation of this information would improve the allocation of BPM to industries over time.

3.1.3.2 Methodology

The national accounts include data on investments in passenger cars for all NACE categories. To distribute the total of BPM paid by industries we used a distribution key based on this information. Until now this distribution was based on information

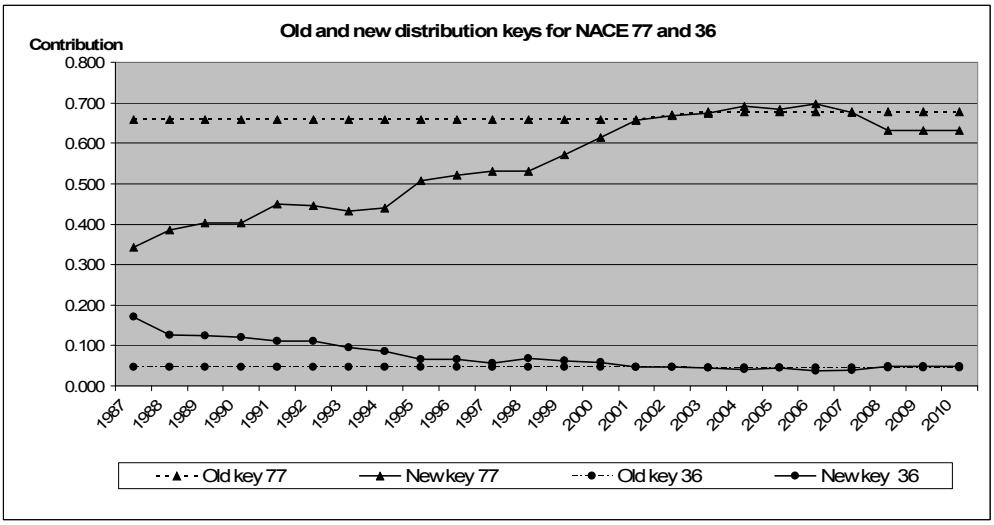
of one revision year (2001) and used for all other years. The new key is improved by using the distribution of investments for all available years from 1987-2008.

3.1.3.3 Results and discussion

Results for the tax on passenger cars and motorcycles are presented in Annex 5 and Annex 6. By using the distribution of investments in passenger cars over the industries as a key to distribute the tax on passenger cars and motorcycles over these industries is an improvement. Especially the years before the last revision year 2001 are improved, but even the years between 2001 and 2008 are affected.

As an example, a remarkable improvement took place at the rental and lease of cars (NACE 77) and the wholesale trade (NACE 36). The old and new distribution keys for both industries are shown in figure 1.

Figure 1 Share of NACE 36 and 77 in total investments in passenger cars.



The increase in the contribution of vehicle leasing and rental companies at the expense of the contribution at the wholesale trade is remarkable. The shift from purchase to leasing which has taken place in recent decades is now better reflected in the new distribution key used to divide the tax on passenger cars and motorcycles by industry.

3.1.4 Energy tax (Energiebelasting)

The energy tax is a tax levied on the consumption of energy products for stationary use, namely electricity, natural gas, other gases and certain mineral oils. In 2010 government income from energy tax was 4.2 billion euro, which was 101 million euro more than in 2009. For transport purposes consumers are charged an excise duty. Together, energy tax and excise duties on petrol and mineral oils are classified as the group of taxes on energy. These taxes are paid by the various sectors of industry and by households. The amount of taxes actually paid are determined by the amount of energy products used, the tax rates and possible exemptions. For example, natural gas and other gases used to generate electricity are exempt from energy tax. The current distribution that is used to allocate the paid amount of

energy tax by industry and households does not take all these three components into account. The purpose of this study is to improve the allocation of the energy tax by using all three components.

3.1.4.1 Data sources

Statistics Netherlands has information available on the first two components. The main data that could be used are data on consumption of electricity (kWh) and gas (m^3) by industry and rates for the energy tax.

For the first component, the Dutch environmental accounts provide data on the production and consumption of gas and electricity by different industries and households. In 2011 a revision project was carried out for the energy accounts to improve the distribution of energy consumption over the individual industries. A number of different sources, including data from the production statistics but also register data from the energy companies that have been allocated to NACE, have been used to improve the monetary and physical use for these energy products. The revised consumption data are available for the year 2009 and could be useful in this project.

For the second component, depending on the amount of energy consumption, there is a different rate for the energy tax for each year. For the year 2009 the following rates applied:

Table 3 Energy tax rates 2009.

Energy	Use	Energy Tax	
Gas	<= 800 m3	euro/1 000 m3	158
	> 800-5 000 m3	euro/1 000 m3	158
	> 5 000-170 000 m3	euro/1 000 m3	139
	> 170 000-1 mln m3	euro/1 000 m3	38
	> 1 mln-10 mln m3	euro/1 000 m3	12
	>10mln m3 (Private)	euro/1 000 m3	11
	> 10 mln m3 (Business)	euro/1 000 m3	8
Electricity	<= 0,8 MWh	euro/1 000 KWh	109
	> 0,8-10 MWh	euro/1 000 KWh	109
	> 10-50 MWh	euro/1 000 KWh	40
	> 50 MWh-10 000 MWh	euro/1 000 KWh	11
	> 10 mln kWh (Private)	euro/1 000 KWh	1.0
	> 10 mln kWh (Business)	euro/1 000 KWh	0.5

To link the physical use of electricity and natural gas to the different tax rates, information on the number of companies by industry could be used. The corporate registry of Statistics Netherlands holds the number of companies and institutions, based on the standard business format 2008 (NACE Rev. 2) broken down by (sub) classes. The statistical unit company is an operationalization of the kind-of-activity unit, as defined by Eurostat. As of July 1, 2006, the corporate registry of Statistics Netherlands changed dramatically. As a result, the data on the number of branches and institutions on January 1, 2007 are not comparable with older data.

In the Netherlands, an annual allowance is given for each mains connection by the government. These data are published each year and are used for the distribution key as input for the third component.

3.1.4.2 Methodology

The monetary allocation of energy tax by industry and households is executed by using the data sources mentioned above. After the construction of a draft distribution key, for energy tax which is done for the year 2009, some additional refinements are done in the distribution key to account for existing tax exemptions.

Construction of a draft distribution key for energy tax

The new key to distribute the energy tax over the individual industries is based on average gas and electricity consumption by industry. The average consumption by industry is calculated by dividing the total consumption of energy by the number of companies for each industry.

For each industry the corresponding tax rates based on the average consumption of gas (m^3) and electricity (kWh) are looked up in the table with tax rates. Next, the total energy tax by industry is calculated by multiplying the average tax rate by the average energy consumption. This is done separately for the consumption of gas and electricity.

Adjustments for tax exemptions

The distribution based on the calculations as just mentioned is a good basis to distribute the taxes over the industries, but some refinements are necessary.

The first adjustment was to make a correction for the dispensation given for each Mains Connection. For 2009 this dispensation was €319 for each connection. For each company this dispensation was subtracted from the energy tax counted, i.e., for each NACE class, the number of companies was multiplied by €319 and subtracted from the total. By convention, the discount is only allocated to the electricity consumption.

The next refinement was to set the paid energy tax to zero for the companies that distribute the energy, as these companies are exempt from energy tax in the Netherlands.

Further refinement is possible by examining the use of electricity by land transport. Railway companies are the predominant users of electricity in the Netherlands. In the basic calculation method as mentioned before, the use of electricity is divided by all the companies delivering land transport (including the few railway companies), resulting in a relatively low use of electricity for each company, which results in a high rate for the energy tax. As a refinement, the tax rate for land transport is set to the lowest category as most of the electricity is used by only a few companies, namely the electricity intensive railway companies.

The last refinement is done for agricultural companies. In greenhouse farming (horticulture), the majority of gas is consumed by very energy intensive companies. Horticulture pays a reduced rate. In addition there is a tax exemption for farmers that employ combined heat power equipment to produce electricity. Accordingly, the lowest rate is chosen for the tax rate for natural gas.

Tax rates and most of these exceptions used to improve the distribution key could be found in yearly publications of the tax authorities. Some of the improvements are an expert guess.

The resulting table is converted to a table of rates for each sector to distribute the total energy tax over the different sectors.

3.1.4.3 Results and discussion

Table 4 shows the new rates for each sector to distribute the total energy tax over the different sectors. With the currently available information it was not yet possible to calculate this table for years before 2009. This will be done in 2012 based on new information from the National accounts revision process.

Table 4 New rates to distribute the total energy tax over the different sectors.

New distribution key of energy tax 2009

NACE rev.2	Industry classification	Tax on electricity Distribution key	Tax on gas Distribution key
A 01 - A 03	Agriculture, forestry and fishing	0.080	0.021
B 05 - B 09	Mining and quarrying	0.003	0.003
C 10 - C 33	Manufacturing	0.164	0.111
D 35	Electricity, gas, steam and air conditioning supply	0.000	0.000
E36 - E39	Sewerage, waste management, remediation activities	0.009	0.004
F 41 - F 43	Construction	0.039	0.014
H 49 - H 53	Transport and storage	0.018	0.014
G 45 - U 99 (excl. H49-H53)	Services excluding Transport and storage	0.409	0.282
TOTAL OF INDUSTRIES		**0.722**	**0.449**
TOTAL OF HOUSEHOLDS		0.278	0.551
NON-RESIDENTS		0.000	0.000
NOT ALLOCATED		0.000	0.000
TOTAL		**1.000**	**1.000**

The new key is based on average gas and electricity consumption by industry and allocated tax rates. For some industries an improvement was made by using specific knowledge about that industry. For example, electricity companies (NACE D35) do not pay energy tax because they are producing it and therefore are exempt.

3.1.5 Excise duties on mineral oils (Accijns van minerale oliën)

Excise duties on mineral oils are important environmental taxes on energy use. In 2010 the total taxes on mineral oils was equal to 7,659 million euro, which is almost 35 percent of the total environmental taxes. Excises are taxes on products, in this case mineral oil, like petrol, diesel and LPG. Thus, the total amount of excise paid is directly proportional to the total purchase of the motor fuels. As there are no tax exemptions or different tax rates in the Netherlands for excises on motor fuels for

road transport, the allocation of the excises is rather straightforward[1]. The allocation of the paid excises by industry and households can be improved if the allocation of monetary use of motor fuels in the use table of the national accounts can be improved. In the next sections we describe how we have reallocated the total monetary use of motor fuels to industries and households using new data sources. This data will be inserted in the revised National accounts in 2014.

3.1.5.1 Data sources

In order to improve the monetary allocation of motor fuels two different sources have been used that provide information on the use of motor fuels: traffic statistics and production statistics. Both these statistics are available at Statistics Netherlands. Traffic statistics provide information on the total distance travelled by vehicles owned by Dutch residents. Accordingly, this data source directly aligns with the resident principle on the national accounts / environmental accounts. This information is further disaggregated by vehicle type (cars, vans, lorries, busses, motorbikes), the fuel type (petrol, diesel, LPG) and, very important, whether the vehicle is owned by a private person or a company. Production statistics also provide information on the use of motor fuels. However, this information is only available for a very limited number of industries.

3.1.5.2 Methodology

The monetary allocation of motor fuels by industry and households is executed in three steps by using the two data sources mentioned plus a key variable on the capital stock of motor vehicles. After the monetary allocation of motor fuels, which is done for the period 2000-2009, some additional calculations are done to estimate new reallocated data on the paid excises.

Monetary allocation of motor fuel use

Step 1: assessing monetary value of motor fuels for households and industries

Combining the information from the traffic statistics on total distance travelled with data from this same source on the specific use by vehicle type and fuel type, the physical use of motor fuel in million kg by households and industries can be determined. Next, using price information, the total monetary value of the motor fuels is determined for households and industries. In the Netherlands, households use approximately 57 percent of all motor fuels for road transport.

Step 2: imputing information for some specific industries

[1] There are different tariffs for diesel purchases for other uses than road traffic.

To assess the monetary value of the motor fuels for some specific industries, information on the use of motor fuels from the production statistics is used. This applies industries where these costs are very relevant, namely:

a) Wholesale and retail trade and repair of motor vehicles and motorcycles (ISIC 45)

b) Other land transport (ISIC 492-494), including freight transport, public transport and taxi services

c) Warehousing and support activities for transportation (ISIC 52)

d) Postal and courier activities (ISIC 53)

e) Rental and leasing activities (ISIC 77)

Although the number of industries for which information is available is limited, these are industries that are very relevant with respect to the total amount of motor fuels that has to be allocated in total, namely 26 percent of total motor fuel use.

Step 3: using a key variable for the industries that are left

To allocate the remaining motor fuel use to industries, which is 16 percent for 2009, a key variable was used, namely the capital stock of motor vehicles. It is thus assumed that the use on motor fuels is proportional to the total stock of motor vehicles owned by the different industries. For diesel the total stock of motor vehicles for road transport was used, for petrol and LPG the capital stock of private cars was used.

Allocation of excise duties on mineral oils

Basic input for the calculation of excise duties by industries and households is the monetary use of motor fuels, which is estimated for the products petrol, diesel and LPG. For the monetary use of diesel two distributions are made as two types of rates are applied on the Dutch diesel market. The low excised diesel is physically identifiable by the red colouring agents that are added to the regular diesel.

Excise duties are set per litre or kilogram of motor fuel. A first calculation was to convert the monetary use in euro to physical use in litres or kilograms. This was done by using time series of consumer prices per litre or kilogram of motor fuel. Value added tax (VAT) was subtracted from the consumer prices as the monetary value of motor fuels in the use table is excluding VAT. In the next calculation, paid excises by industries and households were estimated by multiplying the calculated litres or kilograms of motor fuel used, by the applicable excise rates. The sum of all calculated paid excises does not exactly match the total excise values as supplied by the government. Total excise duties on petrol and total excise duties on other mineral oils as supplied by the government are set and may not be adapted. Therefore, in the last calculation the distributions of calculated excise duties on motor fuels by industries and by households were used as a key to allocate total

excise duty on petrol and total excise duty on other mineral oils to industries and households. In the allocation of total excise duty on petrol to industries and households the calculated distribution for petrol was copied one by one. In the allocation of total excise duty on other mineral oils the assumption was made that regular diesel, low excised diesel and LPG represent the whole group of other mineral oils. Therefore, in the formation of the distribution key for excise duties on other mineral oils, for each industry and for households the sum of these three motor fuels was calculated.

3.1.5.3 Results and discussion

Annex 7 to Annex 10 show the excise duty results of the new allocation methodology compared to the current methodology. For both excise duties on petrol, as well as for excise duties on other mineral oils, new and old distributions of excises by industries and households are presented.

A remarkable difference for excise duties on petrol is that the amount of excises allocated to manufacturing decreased, whereas allocated excises for construction and services increased (Annex 7 and Annex 8). This decrease for manufacturing could be explained by the fact that in the new methodology no excise duties on petrol are allocated to manufacturing of coke and refined petroleum products as they hardly use any petrol for road transport in their production purposes. In the old methodology they do pay some excises on petrol. For comparison, see the below stated numbers for NACE 19.

Table 5 Allocated excise duties on petrol for manufacturing of coke and refined petroleum products, NACE 19.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	Million euro									
according to old methodology	51	11	71	118	112	39	25	36	4	4
according to new methodology	0	0	0	0	0	0	0	0	0	0
Difference	**-51**	**-11**	**-71**	**-118**	**-112**	**-39**	**-25**	**-36**	**-4**	**-4**

In addition, according to the new methodology more excise duties on petrol should be allocated to the services industries and construction. For the services sector it concerns the industries of land transport, warehousing and support activities for transportation and administrative and support services activities.

Absolute differences by industries and households, in euros excise duty paid, are more pronounced for excise duties on other mineral oils than for excise duties on petrol. This is because most of the industries pay more excise duties on other mineral oils than they pay excise duties on petrol. This is in line with the consumption patterns by industries and households for both groups of motor fuels. In general, petrol is used by households whereas other mineral oils are used by industries. For comparison, for the year 2009, households were responsible for 90 percent of total petrol consumption in litres, whereas their share in consumption for

other mineral oils was between 6 percent and 83 percent (Note: 6 % for low excised diesel, 22 % for regular diesel and 83 % for LPG).

Comparison of the old and new results for the excise duties on other mineral oils shows that manufacturing and agriculture, forestry and fishing deserve a considerable smaller share in paid excise duties than they get at present (Annex 9 and Annex 10). Information on physical use of motor fuel by agriculture, forestry and fishing, shows that 88 percent of total litres diesel consumed in 2009, was low excised diesel. LPG is of minor importance for transport purposes of this sector.

According to the new methodology, the lower amounts of excise duties on other mineral oils, which are allocated to manufacturing, appear throughout the whole range of NACE categories within manufacturing. Manufacturing of chemicals and chemical products and manufacturing of coke and refined petroleum products are the two industries for which the differences are most striking. Their physical use of mineral oil for transport purposes is negligible compared to the use by other manufacturing industries. Therefore the amount of excise duties on other mineral oils allocated to these two industries is considerably lower, what has its effect on the total amount that is allocated to manufacturing.

Besides the recorded decreases for manufacturing and agriculture, forestry and fishing, other minor decreases could be recorded for mining and quarrying, sewerage, waste management, remediation activities and households. A restriction of this quality assessment was that total amount of paid excises should remain the same. Therefore, as a consequence of these decreases, in the new methodology there should be some industries that pay more excise duties on other mineral oils than they did before. Construction and transport and storage are the two industries for which this situation holds. Construction is, together with agriculture, one of the two main consumers of low excised diesel. Transport and storage is an industry that is the biggest consumer of regular diesel, with a consumption of 40 percent.

3.2 Non-residents in the Netherlands

The System of National accounts describes the supply and use of products and services and is broken down by a hierarchical classification of economic activities. One of these economic activities concerns the consumption of households in which fees and taxes, including the environmental fees and taxes, paid by non-residents are included. In principle, non-residents pay all kinds of (environmentally related) taxes. For example, excise duties on mineral oils are some of the most occurring taxes paid by non-residents.

Estimates on environmental taxes and fees are based on data from local and national government units. Subsequently, the various taxes and fees are allocated to the different industries and households in the National Accounts. The method to derive these estimates comply with the guidelines of the European System of Accounts 1995 (ESA95). However, it should be mentioned that no distinction is made between taxes paid by residents and non-residents.

The aim of the investigation described in this paragraph is to find a method to separate taxes and fees paid by non-residents from the total estimation of the consumption.

3.2.1 Definition of non-residents

In the first place, it is important to define the terms ´non-resident' households and ´resident´ households. Resident households consist of all natural persons who are resident for more than one year in the Netherlands, irrespective of their nationality. The definition of non-residents is described in the System of National Accounts (SNA 2008). On the other hand, Dutch citizens who stay abroad for longer than one year do not belong to the Dutch sector households and are considered non-resident (NR 2009, par: 9.4.2). These non-resident Dutch citizens are not the 'non-residents' aimed at in this project. Non-Residents as mentioned in this project are all natural persons from abroad who are resident in the Netherlands for less than one year. This is especially the case with tourists and people working for a short time in the Netherlands.

Environmental taxes and fees are paid by both residents and non-residents. Non-resident households make expenditures inside the economic territory of a foreign country. These expenditures by non-residents are seen as exports of goods and services. Non-residents in the Netherlands also pay fees and taxes including environmental fees and taxes.

3.2.2 Data sources and methodology

To discriminate between environmental taxes and fees paid by residents and non-residents national accounts information is used as data source. In the national accounts, supply and use are shown in the input-output table. There is a breakdown by industry of origin and by imports, which discloses the relations between suppliers and users. The input-output table is derived from the supply and use tables. A row of the input-output table represents the output by industry, broken down by category of destination: intermediate consumption by industry and final expenditures. A column in the intermediate section shows from which industries (or imports) the intermediate consumption of an industry originates. The input-output table shows for example the intermediate consumption of products of agriculture by the food processing industry as well as the total imports of that industry.

Some rows and columns have been added to the input-output table in order to link them to macro-aggregates. Private final consumption expenditure in the Netherlands also includes consumption by non-residents, for example their holiday expenditures in the Netherlands. These expenditures are excluded from the final consumption expenditure by households with the help of a correction row: ' Final consumption by non-resident households in the Netherlands' in one entry. A counter-entry, 'Exports of goods (fob) and services', is made under exports. This counter-entry is used to separate the environmental taxes and fees paid by non-residents from the final consumption expenditure in the Netherlands.

3.2.3 Results and discussion

Whereas, in the past, taxes and fees were allocated to resident households, it is now possible to estimate the environmental taxes and fees paid by non-residents, using a special concept of the National accounts input/output table. In the input/output table, expenditures by non-residents are excluded from the final consumption expenditure by households with the help of a correction row: 'Final consumption by non-resident households in the Netherlands' in one entry and a counter-entry, 'Exports of goods (fob) and services', under exports. This counter-entry is used to separate the environmental taxes and fees paid by non-residents. Taxes and fees paid by the industry sectors are not affected as these are resident companies by concept.

Table 6 Exise duties on motor fuel (mln euro).

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total of industries	1520	1550	1637	1764	1722	1922	1804	2043	2127	2294	2260	2481	2607	2827	2948	3253
Households	2545	2589	2833	2956	3101	3055	3106	3362	3474	3831	3826	3985	3998	4024	4069	4001
Non-residents	**251**	**247**	**280**	**336**	**345**	**313**	**314**	**332**	**351**	**333**	**334**	**352**	**370**	**374**	**380**	**405**
TOTAL of all industries	4316	4386	4750	5056	5168	5290	5224	5737	5952	6458	6420	6818	6975	7225	7397	7659

Table 7 Contribution of excise duties on motor fuel paid relative to the total of all industries.

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total of industries	35.2	35.3	34.5	34.9	33.3	36.3	34.5	35.6	35.7	35.5	35.2	36.4	37.4	39.1	39.9	42.5
Households	59.0	59.0	59.6	58.5	60.0	57.8	59.5	58.6	58.4	59.3	59.6	58.4	57.3	55.7	55.0	52.2
Non-residents	**5.8**	**5.6**	**5.9**	**6.6**	**6.7**	**5.9**	**6.0**	**5.8**	**5.9**	**5.2**	**5.2**	**5.2**	**5.3**	**5.2**	**5.1**	**5.3**
TOTAL of all industries	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Especially excise duties on mineral oils are paid by non-residents when they are on holiday, as can be seen in table 6 and 7 for the years 1995 to 2010. Note that the excise data that are presented are from the current ‘old’ methodology. As can be seen in table 6 the excise duties on motor fuel increase over the years. Table 7 shows that the contribution of excise duty on motor fuel by non-residents is relatively constant. This is consistent with the results of the tourism satellite accounts, where the relative contribution on passenger transport by non-residents is relatively constant over the years too, as can be seen in table 8.

Table 8 Spending on passenger transport in the Netherlands.

		2001	2002	2003	2004	2005	2006	2007	2008	2009**	2010*
Total	mln euro	4189	4415	4259	4478	4809	5135	5391	5874	5157	5245
Non Residents	mln euro	1028	1097	1027	1105	1208	1337	1346	1466	1287	1310
Non Residents	**Contribution of Total**	**24,5**	**24,8**	**24,1**	**24,7**	**25,1**	**26,0**	**25,0**	**25,0**	**25,0**	**25,0**

The distinction of non-residents was also calculated for other environmental taxes like flight tax, tax on passenger cars and motorcycles, energy tax and tax on groundwater. Flight tax was only levied in the Netherlands between June 2008 and July 2009, and a remarkable part was paid by non-residents (55 percent). About 0.9 percent of the energy tax and just more then 1 percent of tax on groundwater is paid by non-residents.

4. Dissemination strategy

Results of the assessment that are of approved quality will be implemented in the Dutch environmental accounts as from 2012. As well the improved data will be included from 2012 onwards in the annual Environmental taxes data delivery to Eurostat.

As the environmental taxes are directly derived from the national accounts methodological changes in the national accounts have to be postponed to the revision moments. Next revision of the Dutch national accounts will be in 2014. From this year on the methodological changes for the environmental tax data will be implemented in the Dutch national accounts again resulting in environmental taxes that will follow the national accounts. So only for 2012 and 2013 at sector level the published environmental tax data of national accounts and environmental accounts differ. Total environmental tax revenues of national and environmental accounts do not differ for the intervening years.

In addition from 2011 onwards, the data delivery to Eurostat DG-ENV will contain data on the two environmental fees: levies on water pollution and sewerage charges. This will tune the environmental tax data of DG Environment to the environmental tax data of DG Taxation.

5. Conclusions

In the new methodologies more advanced calculations are applied that make use of direct data sources and account for reduced tax rates and existing tax exemptions. This does not always result in significant changes in the distribution of taxes over the industries, but for some industries and/or environmental taxes it certainly matters.

Some improvements have the biggest impact in the years following the revision of national accounts in 2001 as in levies on water pollution and sewerage charges. Others had more effect on the years before the revision in 2001, like the tax on passenger cars and motorcycles.

The use of significantly more detailed data about the investment of passenger cars for each year, has improved the distribution of the tax on passenger cars and motorcycles over the individual industries. Developments in investments in passenger cars by industry are now represented in the paid tax by industry. The distribution over industries of the excise duties on mineral oils, that are very important environmental taxes on energy, is considerably improved by using additional data sources on the use of petrol, diesel and other transport fuels by industry as an indicator of tax revenues. By using a special concept in the national accounts input/output table it was possible to discriminate the taxes paid by non-residents for some taxes and fees.

The overall conclusion is that in many cases there is a substantial improvement in dividing the taxes and fees over the individual industries compared to the methods used before this investigation. A possible improvement for the future would be to get more specific data from other governments in the Netherlands, like the tax authorities. This would be an additional improvement of the environmental taxes statistics.

6. Literature

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7. Annex

7.1 Annex 1. Distribution of levies on water pollution over the industries, according to new methodology, 1995-2008

NACE rev.1.1	Industry classification	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Million euro														
A_B 01-05	Agriculture, hunting, forestry and fishing	5	5	5	4	6	5	6	7	7	8	8	8	8	8
C 10-14	Mining and quarrying	0	0	0	1	1	0	1	0	1	1	1	1	1	1
D 15-37	Manufacturing	99	98	99	94	104	106	101	106	105	104	100	107	109	111
E 40-41	Electricity, gas and water supply	2	1	1	1	1	1	1	2	2	3	2	2	2	3
F 45	Construction	3	3	3	2	2	2	3	3	3	4	3	3	3	3
I 60-64	Transport, storage and communication	6	7	7	7	7	8	9	10	11	12	11	10	9	10
G 50-52 + H 55 + J 65-67 + K 70-74 + L 75 + M 80 +	Services excluding transport and Other service activities	126	136	160	150	141	147	156	163	167	167	170	176	170	173
O 90-93	Other community, social, personal service activities	28	29	30	28	29	28	32	35	37	38	38	38	36	37
P 95	Activities of households as employers of domestic staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q 99	Extra-territorial organizations and bodies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total of industries		**270**	**279**	**305**	**288**	**290**	**297**	**308**	**325**	**334**	**336**	**333**	**344**	**339**	**344**
h	Households	556	581	582	612	638	670	696	722	765	805	832	841	869	888
n_r	Non-residents	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n_a	Not allocated	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total levies on water pollution		**826**	**860**	**887**	**900**	**928**	**967**	**1004**	**1047**	**1099**	**1141**	**1165**	**1185**	**1208**	**1232**

7.2 Annex 2. Distribution of levies on water pollution over the industries, according to old methodology, 1995-2008

NACE rev.1.1	Industry classification	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Million euro														
A_B 01-05	Agriculture, hunting, forestry and fishing	5	5	4	4	5	5	10	12	12	11	12	12	12	12
C 10-14	Mining and quarrying	0	0	0	0	0	0	0	1	1	1	2	2	2	2
D 15-37	Manufacturing	99	98	99	94	104	106	96	111	101	100	81	80	71	72
E 40-41	Electricity, gas and water supply	2	1	1	2	1	1	2	3	3	3	3	3	3	3
F 45	Construction	2	2	2	2	2	2	2	2	2	2	2	2	2	2
I 60-64	Transport, storage and communication	6	6	7	6	6	6	7	10	17	17	19	23	23	23
G 50-52 + H 55 + J 65-67 + K 70-74 + L 75 + M 80 +	Services excluding transport and Other service activities	128	139	165	154	145	151	152	144	153	156	165	172	175	178
O 90-93	Other community, social, personal service activities	28	28	27	26	27	26	39	42	45	46	49	50	51	52
P 95	Activities of households as employers of domestic staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q 99	Extra-territorial organizations and bodies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total of industries		**270**	**279**	**305**	**288**	**290**	**297**	**308**	**325**	**334**	**336**	**333**	**344**	**339**	**344**
h	Households	556	581	582	612	638	670	696	722	765	805	832	841	869	888
n_r	Non-residents	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n_a	Not allocated	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total levies on water pollution		**826**	**860**	**887**	**900**	**928**	**967**	**1004**	**1047**	**1099**	**1141**	**1165**	**1185**	**1208**	**1232**

7.3 Annex 3. Distribution of sewerage charges over the industries, according to new methodology, 1995-2008

NACE rev.1.1	Industry classification	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Million euro														
A_B 01-05	Agriculture, hunting, forestry and fishing	7	4	5	5	5	6	6	6	6	6	6	7	8	7
C 10-14	Mining and quarrying	0	0	0	0	0	0	0	0	0	0	0	0	0	0
D 15-37	Manufacturing	13	14	14	14	14	15	15	15	16	16	16	18	18	19
E 40-41	Electricity, gas and water supply	1	1	1	0	1	0	1	1	1	0	1	1	1	1
F 45	Construction	12	8	9	9	10	11	12	13	13	12	12	16	17	17
I 60-64	Transport, storage and communication	11	7	7	8	9	10	11	11	12	11	11	14	15	15
G 50-52 + H 55 + J 65-67 + K 70-74 + L 75 + M 80 +	Services excluding transport and Other service activities	94	57	64	71	75	82	89	97	105	100	101	132	142	139
O 90-93	Other community, social, personal service activities	7	4	5	5	6	6	7	7	8	7	8	10	11	11
P 95	Activities of households as employers of domestic staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q 99	Extra-territorial organizations and bodies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total of industries		**146**	**95**	**104**	**113**	**119**	**130**	**140**	**149**	**161**	**153**	**155**	**198**	**211**	**209**
h	Households	311	372	418	452	475	520	561	597	644	678	731	816	883	954
n_r	Non-residents	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n_a	Not allocated	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total sewerage charges		**457**	**467**	**522**	**565**	**594**	**650**	**701**	**746**	**805**	**831**	**886**	**1014**	**1094**	**1163**

7.4 Annex 4. Distribution of sewerage charges over the industries, according to old methodology, 1995-2008

NACE rev.1.1	Industry classification	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Million euro														
A_B 01-05	Agriculture, hunting, forestry and fishing	7	4	4	5	5	5	7	7	7	7	7	9	9	9
C 10-14	Mining and quarrying	0	0	0	0	0	0	0	0	0	0	0	0	2	2
D 15-37	Manufacturing	12	14	13	13	14	14	20	35	52	56	55	73	82	81
E 40-41	Electricity, gas and water supply	2	1	1	1	1	1	1	1	1	1	1	2	2	2
F 45	Construction	13	7	9	10	10	11	12	11	11	8	8	12	12	12
I 60-64	Transport, storage and communication	10	7	7	8	8	8	7	7	3	1	1	1	3	3
G 50-52 + H 55 + J 65-67 + K 70-74 + L 75 + M 80 +	Services excluding transport and Other service activities	96	58	66	72	77	87	87	80	79	72	75	92	92	91
O 90-93	Other community, social, personal service activities	6	4	4	4	4	4	6	8	8	8	8	9	9	9
P 95	Activities of households as employers of domestic staff	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q 99	Extra-territorial organizations and bodies	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total of industries		**146**	**95**	**104**	**113**	**119**	**130**	**140**	**149**	**161**	**153**	**155**	**198**	**211**	**209**
h	Households	311	372	418	452	475	520	561	597	644	678	731	816	883	954
n_r	Non-residents	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n_a	Not allocated	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total sewerage charges		**457**	**467**	**522**	**565**	**594**	**650**	**701**	**746**	**805**	**831**	**886**	**1014**	**1094**	**1163**

7.5 Annex 5 Distribution of tax on passenger cars and motorcycles, according to new methodology

Distribution of tax on passenger cars and motorcycles, according to new methodology

NACE rev.2	Industry classification	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
	Million euro																
A 1+2+3	Agriculture, hunting, forestry and fishing	4	5	5	6	7	7	8	6	6	7	7	8	9	8	5	5
B 6+8+9	Mining and quarrying	0	0	1	1	1	1	1	0	1	1	1	1	1	1	0	0
C 10-33	Manufacturing	27	30	33	39	46	47	52	41	44	48	51	56	61	54	34	32
D 35	Electricity, gas and water supply	0	0	0	0	0	1	1	1	1	1	1	1	1	1	0	0
E 36-39	Water collection and recycling	3	3	3	4	5	5	5	6	6	6	7	7	8	7	4	4
F 41-43	Construction	46	50	57	66	77	80	88	68	59	65	69	76	83	73	46	44
H 49-53	Transport, storage and communication	18	20	22	26	31	32	35	29	40	44	47	52	56	49	31	30
G 45-47 + I 55+56 + J 58-63 + K 64-66 + L 68 + M 69-75 + N 77-82	Services excluding transport and Other service activities	813	891	1001	1167	1372	1424	1556	1367	1450	1591	1684	1866	2032	1786	1121	1075
O 84	Public administration and defence; compulsory social security	25	27	30	35	41	43	47	44	45	50	53	58	64	56	35	34
P 85	Education	7	8	9	10	12	13	14	12	13	14	15	16	18	15	10	9
Q 86-88	Human health activities	13	15	17	19	23	24	26	22	26	29	30	34	37	32	20	19
TOTAL OF INDUSTRIES		**957**	**1049**	**1178**	**1374**	**1615**	**1676**	**1832**	**1597**	**1690**	**1855**	**1964**	**2176**	**2369**	**2083**	**1307**	**1253**
TOTAL OF HOUSEHOLDS		833	819	857	1021	1191	1163	1069	1105	1143	1112	1143	1232	1230	1109	805	812
NOT ALLOCATED		23	24	26	30	34	36	38	39	41	36	41	44	48	44	33	31
Total BPM Taxes		**1813**	**1892**	**2061**	**2425**	**2840**	**2875**	**2939**	**2741**	**2874**	**3003**	**3148**	**3452**	**3647**	**3236**	**2145**	**2096**

7.6 Annex 6 Distribution of tax on passenger cars and motorcycles, according to old methodology

Distribution of tax on passenger cars and motorcycles, according to old methodology

NACE rev.2	Industry classification	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
A 1+2+3	Agriculture, hunting, forestry and fishing	4	4	5	4	4	4	5	4	4	4	5	5	6	6	4	4
B 6+8+9	Mining and quarrying	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
C 10-33	Manufacturing	41	44	57	62	64	62	55	43	47	46	50	57	63	69	43	41
D 35	Electricity, gas and water supply	3	3	4	5	2	0	1	1	1	1	0	0	4	5	3	3
E 36-39	Water collection and recycling	3	4	4	4	4	5	5	6	6	5	4	4	4	33	21	20
F 41-43	Construction	39	51	70	79	98	80	88	68	60	68	70	74	118	113	71	68
H 49-53	Transport, storage and communication	33	29	29	41	38	48	38	31	43	50	41	43	42	49	30	29
G 45-47 + I 55+56 + J 58-63 + K 64-66 + L 68 + M 69-75 + N 77-82	Services excluding transport and Other service activities	756	839	931	1095	1317	1378	1545	1357	1437	1581	1687	1876	2021	1696	1064	1021
O 84	Public administration and defence; compulsory social security	33	32	34	36	37	44	46	44	45	50	48	55	45	41	26	25
P 85	Education	16	12	12	13	13	14	15	13	14	16	17	19	21	25	16	15
Q 86-88	Human health activities	18	18	20	21	23	24	26	22	26	27	30	33	35	32	20	19
TOTAL OF INDUSTRIES		**945**	**1036**	**1166**	**1361**	**1602**	**1660**	**1825**	**1590**	**1683**	**1848**	**1953**	**2166**	**2359**	**2070**	**1299**	**1246**
TOTAL OF HOUSEHOLDS		833	819	857	1021	1191	1163	1069	1105	1143	1112	1143	1232	1230	1109	805	812
NOT ALLOCATED		35	37	38	43	47	52	45	46	48	43	52	54	58	57	41	38
Total BPM Taxes		**1813**	**1892**	**2061**	**2425**	**2840**	**2875**	**2939**	**2741**	**2874**	**3003**	**3148**	**3452**	**3647**	**3236**	**2145**	**2096**

7.7 Annex 7 Distribution of excise duties on petrol by industry, according to new methodology, 2000-2009

Distribution of taxes on Petrol, according to new methodology

NACE rev.2	Industry classification	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
A 01 - A 03	Agriculture, forestry and fishing: TOTAL TAXES	2	2	2	2	2	2	2	2	2	2
B 05 - B 09	Mining and quarrying: TOTAL TAXES	0	0	0	0	0	0	0	0	0	0
C 10 - C 33	Manufacturing: TOTAL TAXES	23	23	24	24	25	23	23	24	21	24
D 35	Electricity, gas, steam and air conditioning supply: TOTAL TAXES	1	1	1	0	0	0	0	0	1	1
E36 - E39	Sewerage, waste management, remediation activities: TOTAL TAXES	2	2	2	2	3	3	2	2	4	6
F 41 - F 43	Construction : TOTAL TAXES	30	32	34	35	37	35	33	35	33	38
H 49 - H 53	Transport and storage : TOTAL TAXES	15	15	17	18	21	20	20	20	17	17
G 45 - U 99 (excl. H49-H53)	Services excluding Transport and storage: TOTAL TAXES	245	243	265	271	304	304	320	320	330	317
TOTAL OF INDUSTRIES		**318**	**317**	**345**	**353**	**393**	**387**	**401**	**404**	**408**	**406**
TOTAL OF HOUSEHOLDS		2833	2831	3075	3153	3508	3448	3581	3606	3641	3622
NON-RESIDENTS		0	0	0	0	0	0	0	0	0	0
NOT ALLOCATED		0	0	0	0	0	0	0	0	0	0
TOTAL excise duty on petrol for the ECONOMY		**3151**	**3148**	**3420**	**3506**	**3901**	**3835**	**3982**	**4010**	**4049**	**4028**

7.8 Annex 8 Distribution of excise duties on petrol by industry, according to old methodology, 2000-2009

Distribution of taxes on Petrol, according to old methodology

NACE rev.2	Industry classification	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
A 01 - A 03	Agriculture, forestry and fishing: TOTAL TAXES	3	3	3	1	1	1	1	1	2	2
B 05 - B 09	Mining and quarrying: TOTAL TAXES	0	0	1	1	1	1	1	2	2	1
C 10 - C 33	Manufacturing: TOTAL TAXES	75	28	91	137	149	76	69	83	52	53
D 35	Electricity, gas, steam and air conditioning supply: TOTAL TAXES	0	0	0	0	0	0	0	0	0	0
E36 - E39	Sewerage, waste management, remediation activities: TOTAL TAXES	9	12	11	13	16	13	15	15	16	14
F 41 - F 43	Construction : TOTAL TAXES	13	11	13	13	14	13	13	13	13	12
H 49 - H 53	Transport and storage : TOTAL TAXES	3	3	3	2	2	1	2	1	2	3
G 45 - U 99 (excl. H49-H53)	Services excluding Transport and storage: TOTAL TAXES	236	219	247	222	259	252	258	258	275	276
TOTAL OF INDUSTRIES		**339**	**276**	**369**	**389**	**442**	**357**	**359**	**373**	**362**	**361**
TOTAL OF HOUSEHOLDS		2812	2872	3051	3117	3459	3478	3623	3637	3687	3667
NON-RESIDENTS		0	0	0	0	0	0	0	0	0	0
NOT ALLOCATED		0	0	0	0	0	0	0	0	0	0
TOTAL excise duty on petrol for the ECONOMY		**3151**	**3148**	**3420**	**3506**	**3901**	**3835**	**3982**	**4010**	**4049**	**4028**

7.9 Annex 9 Distribution of excise duties on other mineral oils by industry, according to new methodology, 2000-2009

Distribution of taxes on other mineraiols, according to new methodology

NACE rev.2	Industry classification	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
A 01 - A 03	Agriculture, forestry and fishing: TOTAL TAXES	23	22	26	28	29	31	36	39	41	55
B 05 - B 09	Mining and quarrying: TOTAL TAXES	1	1	1	1	1	1	1	1	2	2
C 10 - C 33	Manufacturing: TOTAL TAXES	53	52	58	65	68	71	80	87	97	100
D 35	Electricity, gas, steam and air conditioning supply: TOTAL TAXES	3	2	2	2	2	2	2	3	5	6
E36 - E39	Sewerage, waste management, remediation activities: TOTAL TAXES	14	15	19	23	26	27	31	33	45	55
F 41 - F 43	Construction : TOTAL TAXES	108	112	127	138	144	143	149	164	178	199
H 49 - H 53	Transport and storage : TOTAL TAXES	964	926	1015	1048	1078	1076	1171	1194	1269	1369
G 45 - U 99 (excl. H49-H53)	Services excluding Transport and storage: TOTAL TAXES	492	482	552	605	647	668	746	795	843	846
TOTAL OF INDUSTRIES		**1659**	**1613**	**1802**	**1910**	**1996**	**2019**	**2215**	**2317**	**2480**	**2631**
TOTAL OF HOUSEHOLDS		480	463	515	536	561	566	621	648	696	738
NON-RESIDENTS		0	0	0	0	0	0	0	0	0	0
NOT ALLOCATED		0	0	0	0	0	0	0	0	0	0
TOTAL excise duty on other mineral oils for the ECONOMY		**2139**	**2076**	**2317**	**2446**	**2557**	**2585**	**2836**	**2965**	**3176**	**3369**

7.10 Annex 10 Distribution of excise duties on other mineral oils by industry, according to old methodology, 2000-2009

Distribution of taxes on other mineraiols, according to old methodology

NACE rev.2	**Industry classification**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
A 01 - A 03	Agriculture, forestry and fishing: TOTAL TAXES	35	36	40	55	37	35	39	42	43	45
B 05 - B 09	Mining and quarrying: TOTAL TAXES	6	7	8	10	10	10	10	8	9	9
C 10 - C 33	Manufacturing: TOTAL TAXES	183	158	184	195	239	227	331	374	488	547
D 35	Electricity, gas, steam and air conditioning supply: TOTAL TAXES	1	1	1	1	1	3	3	1	3	3
E36 - E39	Sewerage, waste management, remediation activities: TOTAL TAXES	43	45	50	55	57	57	59	62	65	73
F 41 - F 43	Construction : TOTAL TAXES	58	55	64	68	60	69	73	75	80	83
H 49 - H 53	Transport and storage : TOTAL TAXES	708	730	777	789	805	843	903	949	984	1001
G 45 - U 99 (excl. H49-H53)	Services excluding Transport and storage: TOTAL TAXES	549	496	550	565	643	659	704	723	793	826
TOTAL OF INDUSTRIES		**1583**	**1528**	**1674**	**1738**	**1852**	**1903**	**2122**	**2234**	**2465**	**2587**
TOTAL OF HOUSEHOLDS		556	548	643	708	705	682	714	731	711	782
NON-RESIDENTS		0	0	0	0	0	0	0	0	0	0
NOT ALLOCATED		0	0	0	0	0	0	0	0	0	0
TOTAL excise duty on other mineral oils for the ECONOMY		**2139**	**2076**	**2317**	**2446**	**2557**	**2585**	**2836**	**2965**	**3176**	**3369**