EUROPEAN NETWORK OF
ECONOMIC POLICY RESEARCH INSTITUTES
WORKING PAPER NO. 46/APRIL 2006

EUROPE'S FINANCIAL PERSPECTIVES IN PERSPECTIVE

GEORGE GELAUFF

HERMAN STOLWIJK

PAUL VEENENDAAL

ENEPRI Working Papers constitute dissemination to a wider public of research undertaken and already published by ENEPRI partner member institutes on their own account. This paper was originally published by the CPB Netherlands Bureau for Economic Policy Analysis as CPB Document No. 101, dated November 2005. It is reprinted by ENEPRI with kind permission of the authors. The views expressed are attributable only to the authors and not to any institution with which they are associated.

ISBN 92-9079-635-9

AVAILABLE FOR FREE DOWNLOADING FROM THE ENEPRI WEBSITE (HTTP://WWW.ENEPRI.ORG) OR THE CEPS WEBSITE (WWW.CEPS.BE)

Abstract

The budget of the European Union nearly always raises much commotion. Many member states anxiously guard their net payment positions: don't they pay too much for the EU compared to what they receive from the EU? Yet, from an economic perspective the subsidiarity principle is much more important: Should the funds be allocated by the Union or by the individual member states? From that angle, a number of fundamental reforms of European agricultural policy and structural actions (support to lagging regions) suggest themselves. These reform options may more than halve the EU budget. In addition they happen to bring the net payment positions of member states closer together.

Key words: EU-budget, economic integration, subsidiarity, common agricultural policy, structural actions, tariff incidence

JEL codes: F4, H7, C67, Q18, R58

Summary

European citizens benefit from European integration at relatively moderate cost. Studies show that the average resident in the EU earns 10% more than he or she would have done without European integration. In addition, policy coordination in the EU prevents waste through overlapping policy efforts or discordant interactions between governments, such as a race to the bottom. The budget of the EU comprises about 1% of gross national income (GNI) of the member states. Costs of implementation of EU policies mainly consist of expenditure for the common agricultural policy and the structural actions (support to lagging regions). The costs of the European institutions, such as the European Commission and the European Parliament, only comprise 0.05% of member states' GNI, i.e. 5% of the EU budget.

Still, EU expenditure can further be reduced, if the subsidiarity principle is followed more strictly. According to this principle, EU policies are only warranted if they bring about additional gains over policies implemented at the national or regional level. Currently the main part of the EU budget is spent on agriculture and structural actions. Historically this can easily be understood. However, conditions have changed and, by consequence, a fundamental reform of the budget rules seems appropriate.

For the EU's agricultural policy, the criterion of common European interest is much less relevant than in the past. Hence, direct funding by the member states instead of the Union (financial renationalisation) of a substantial part of the outlays on agriculture seems reasonable. Over the past twenty years, the EU agricultural policy has changed considerably. The emphasis has increasingly shifted from guaranteeing minimum prices to providing support decoupled from production. In the long term, these direct payments can only be justified if the recipients produce socially valuable non-market goods or services. The decoupled payments, which at the moment are linked mainly to farm size and historical production, should be a direct reward for an explicitly delivered "service", such as maintaining the landscape or the preservation of quality-of-life in rural areas. Because the benefits of these services primarily accrue to national or regional residents, there is much less role for the EU.

When structural actions benefit only the poor member states and no longer the rich member states, effective redistribution in the EU is improved. Currently, also regions in rich member states benefit from EU structural actions. However, rich member states have sufficient means to support their lagging regions. Moreover, it is likely that national governments have better information on where and how to spend support effectively than the EU. They also have a stronger incentive to spend the means effectively. Hence, structural support can better be put at the disposal of the governments of the poor member states, which subsequently decide on the projects they want to spend it on.

A rough calculation shows that implementing these reforms would more than halve the current budget. At the same time there would be no reason anymore to hold on to the budget rebate that all member states pay to the UK. By consequence, the net payment positions of member states would happen to be closer together as well.

1 Introduction*

The seven-yearly budget rounds in the European Union are always turbulent affairs. The decision making process on the Financial Perspectives 2007-2013, the multi-year budget which sets the ceilings for EU expenditure, was no exception. Only after difficult negotiations by the Heads of Government, an agreement could be reached. At first, the European Commission wanted to raise the expenditure ceiling, a move which was firmly opposed by a number of member states. The British were under pressure to give up their budget rebate, the French refused to discuss any reduction in common agricultural policy (CAP) spending, and the Dutch were unhappy about their large net contribution to the budget. The final compromise has all the characteristics of a compromise, as it lies roughly half way between the Luxembourg Presidency paper of June 2005 and the initial UK paper of December 5.

Because of all the sabre rattling, the debate on Europe sometimes seems to be restricted to a very narrow financial perspective. In general two obstacles make it hard to reach an agreement: member states' emphasis on their net payment positions and the (overly?) critical attitude towards Europe by the general public in a number of member states. A focus on the net payment position creates a difficult coordination problem as stated by Gros and Micossi (2005):

> ".. no voice will defend overall EU interest. For any individual member country the return from defending an EU-wide encompassing interest is negligible compared to the advantage it can obtain from a change in the budget that might lead to a lower overall efficiency, but to more money for its own citizens or regional governments."

Stepping back from thinking in terms of net payment positions, demands a view on the budget as 'a tool for fostering common goals' (Gros and Micossi, 2005).[1]

The critical attitude towards Europe manifested itself most clearly in the no-vote in the referenda on the constitution in France and the Netherlands. To some degree, this may have been influenced by a biased view of the benefits and costs of the European Union. In some of the discussions the EU features as a money wasting institution that restricts the freedom of movement of national policy.

However, the budgetary costs of the European Union are relatively small compared to its benefits. The EU budget accounts for only 1% of the combined gross national income (GNI)[2] of the member states. Within the EU, nearly all public expenditure is effected through national

* Several colleagues commented on various drafts of the text. In addition, we would like to express our gratitude to Arjan Lejour for his contribution on the trade benefits of EU integration, to Frits Bos for his analysis of the budget data, to Jorge Nunez for providing insights in the EU budget, to Fred Kuypers and Nico van Leeuwen for retrieving input-output data, to Twan Verschaeren for updating the data from 2003 to 2004 and to Ton Brouwer for doing an excellent job in creating the figures, in particular the technically difficult figure 4.1.

[1] For some other publications which reject the *juste retour* approach, see Bos and Van Riel (2004) , and Cacheux (2005).

[2] European budget figures are usually expressed as a percentage of gross national income (GNI). The member states' payments to the EU are partly calculated as a percentage of GNI (see section 4.1) and the budget ceilings are also expressed as a percentage of EU GNI (for instance, the ceiling for the current budget is 1.24%). GNI is equal to gross domestic product (GDP) plus the balance of primary income from abroad.

budgets, and many European regulations have no visible impact on the EU budget.[3] Moreover, the benefits of European integration cannot be found on the budget. Benefits are not reflected in the net receipts that a member state obtains from Brussels; much more important is the additional trade that follows from the creation of a European internal market and the higher incomes for EU citizens this brings about.

A stronger focus on subsidiarity may lower the two obstacles in the budget debate: the emphasis on net payment positions and the critical attitude towards the EU.[4] Subsidiarity implies that EU policies are only warranted if they bring about additional gains over policies implemented at a more decentralised level (member state or region within a member state). A substantial part of the outlays for the common agricultural policy and the structural actions of the EU are difficult to reconcile with the subsidiarity principle. This opens up options for reform, which would considerably reduce the size of the EU budget and bring net payment positions more in line with each other.[5] That may be a useful signal for EU citizens who worry about the growth of the EU and may focus the discussion between governments on the common good which European coordination can provide to its citizens.

This paper reviews the EU budget from a subsidiarity perspective. Section 2 considers the economic benefits and the costs of European integration. Section 3 presents some options for fundamental reforms of the EU budget, in particular with respect to the two largest budget items agricultural policy and structural actions. Section 4 focuses on the consequences of the reform options for the net payment positions of the member states. Section 5 concludes.

[3] Pelkmans (2004) states that "The general conclusion for policy – which is nearly always lost in the debate on net payments – is that the economic and political significance of the European Union cannot be inferred from the EU budget".

[4] This is in line with Gros and Micossi (2005) who argue for reforms of the budget starting from the principle that 'expenditure at the EU level is appropriate only to safeguard a European public good.' Yet, we consider the principle of subsidiarity to be somewhat more useful, because it can be made operational through economies of scale or external effects of a country's policy on other countries.

[5] Other authors arguing for substantial cuts in EU budgets for agriculture and for structural actions directed at rich member states are: Sapir *et al.* (2004), Baldwin (2005), Peet (2005).

2 The benefits and costs of Europe

The European Union offers its people a number of undeniable benefits. During the years after the Second World War, these benefits lay primarily in preventing the horrors of war and the disastrous economic consequences of the protectionism of the 1930s; but in the decades thereafter these benefits gradually shifted towards the welfare effects of economic integration. European integration has promoted trade within the EU. Between 1960 and 2000 intra-EU trade increased by 1200% in real terms, while trade between the EU member states and other countries increased by 730% over the same period (see Badinger and Breuss, 2004). The trade-promoting effect of integration can be attributed in part to the abolition of customs duties between the European counties, the mutual recognition of product standards and the simplification of customs formalities. Regulations aimed at preventing implicit and explicit discrimination against foreign goods and opportunities to appeal against discrimination have also given a boost to intra-EU trade.

What are the welfare effects of economic integration over the long term? Studies that directly analyse the effect of integration on economic growth have shown no permanent effect, but a level effect (and hence a temporary effect on economic growth) has often been identified (see Deardorff and Stern, 2004). Badinger (2005) estimates that income per head in the EU-15 would be about 20% lower without economic integration. But because he makes no distinction between economic integration within the EU and integration with other countries within the framework of international trade agreements (under GATT and WTO), the intra-EU effect will be smaller than 20%.

Another way of measuring the effects of integration on income is to make an explicit distinction between the effect of EU integration on trade and the effects of additional trade on income. Studies show that intra-EU trade is 30-60% higher than it would have been if the EU-15 countries had not been EU members (Lejour and Nahuis, 2004). A 1% increase in trade translates into 0.2% increase in income on average.[6] Thus, if trade increases by 30-60%, incomes will increase by 6-12%. This final figure is broadly in line with Badinger's findings. Although the economic literature offers no firm evidence on the income effects of European integration, it does not seem unwarranted to conclude that EU integration has raised incomes in the EU-15 by around 10%.

Europeans benefit not only from economic integration through the internal market, but also from policy coordination by the EU. Under the subsidiarity principle, the EU has a role to play if policy is required on a European scale (e.g. competition policy for multinationals, space research) or if one country's policies have a direct impact on another country (e.g. corporation tax rates, cross-border environmental issues).[7] In these cases coordination prevents waste

[6] See Lewer and van den Berg (2003). Their findings are based on a meta analysis of the empirical literature. Recent work by Frankel and Rose (2002) shows effects which are three times larger.

[7] See Mooij and Tang (2003), chapter 7.

through overlapping policy efforts or discordant interactions between governments (a “race to the bottom”, for instance). The contribution of policy coordination to welfare is difficult to estimate, however.

The benefits also entail costs. It costs money to operate the European institutions (European Commission, European Parliament, European Court of Justice) and to implement EU policies. Table 2.1 shows that agricultural policy and structural actions (consisting of the cohesion funds and the structural funds, which are aimed at stimulating lagging regions) account for most of EU expenditure. The costs of the European institutions are relatively modest (as is evident from the line ‘administration’ in Table 2.1), also in comparison with national governments. Thus, the number of EU civil servants, around 25,000, is broadly the same as the number of Dutch central government civil servants not involved in executive and administrative tasks (i.e. excluding the Tax Department, the judicial system and the Directorate-General for Public Works and Water Management).

Table 2.1 also gives an indication of the implications of EU enlargement for the EU budget. As a percentage of GNI, total expenditure barely increased in the year of accession, 2004. Because expenditure on agriculture remained almost unchanged in nominal terms, it fell as a percentage of GNI, which compensated the increased expenditure on structural actions.

Table 2.1 EU expenditure in 2003 and 2004

	2003 EU-15		2004 EU-25	
	Euro bn	% EU GNI	Euro bn	% EU GNI
Agriculture	44.4	0.47	44.6	0.43
Structural actions	28.5	0.30	34.1	0.34
Other internal policies (research, training, environment etc)	5.0	0.05	9.3	0.09
External policies and other expenditure	8.3	0.09	8.3	0.08
Administration	4.5	0.05	4.9	0.05
Total EU expenditure	90.6	0.96	100.1	0.98

Source: Table 3h in European Commission (2005).

3 Reform options

As for all public spending, the crucial economic criteria for evaluating EU expenditure are legitimacy (is there a role for government?), effectiveness (does the policy achieve its objective?) and efficiency (what does the policy cost?). Legitimacy and effectiveness are closely linked to subsidiarity: should the policy actually be implemented at EU level? These criteria certainly raise a number of qualifications and comments with regard to the two largest items in the EU budget, namely agriculture and structural actions.

3.1 Agriculture

EU agricultural policy has changed considerably over the past two decades. In response to escalating budget costs and international pressure, guarantee prices have been cut significantly. Consequently and because of production restrictions, export subsidies have also declined sharply. To ease the impact of these changes on farmers' incomes, direct payments have been introduced. The policy shift is also reflected in the agricultural guarantees budget. In the early 1990s almost the entire budget was spent on market-related measures, but these currently account for less than 25% of total spending; around 75% of expenditure is now in the form of direct payments.[8]

Over the longer term, the substantial direct payments can only be justified if the recipients produce socially valuable non-market goods or services. That is certainly the case in the eyes of many of those involved. They point in particular to the contribution which agriculture can make to the quality of life in the rural areas and to its role in preserving culturally and historically valuable landscapes. The direct payments, which at the moment are linked mainly to farm size and historical production, should be better targeted, however. They should be a direct reward for an explicitly delivered "green service" or a compensation for conditions which make farming impossible on a commercial basis but nevertheless socially desirable from a landscape, nature or quality-of-life perspective. In any case, the effect of a direct payment on the volume of agricultural production should be negligibly small.

Furthermore, the subsidiarity principle raises the question whether it is best to implement agricultural policy, including the financing of public services, at EU level. Arguments abound for answering this question in the negative. Whether the costs of the non-market goods and services are worth the benefits can be determined better at national or regional level. Moreover, it is reasonable to ask those who benefit from the positive effects to bear the costs as well. Thus,

[8] The shift from market support to direct payments linked less to production and more to land (and farms) explains to a large extent the declining share of EU agricultural expenditure that ends up in the Netherlands. This share has fallen from 5.6% in 1995 to 2.5-3% at the moment. The absolute figure for 2004 was 1.33 billion euro. Another explanation is the Dutch relative specialisation in products for which price support measures remained in place in the period under consideration, such as sugar and dairy products. The shift to direct payments primarily related to the EU cereals regime. The decline of the Dutch share in EU agricultural subsidies must be set against the benefit of lower import prices for cereals.

if Finland wishes to develop a different form of agriculture in the cold north of Europe, or if the Netherlands prefers to promote small-scale dairy farming in its western peat districts, then the payment of income supplements from Brussels does not seem the most obvious way of achieving these goals. Community regulations run the risk of being inefficient and bureaucratic. They also invite "free riding" on the EU budget. The history of the common agricultural policy is littered with examples of this.

Would financing at national level mark the end of the common agricultural policy? Certainly not. Competition on the single market calls for supervision of the ways in which the "multifunctionality" of agriculture (i.e. the combination of producing food and providing public services) is given shape. Member states must be prevented from supporting their own agricultural production under the guise of multifunctionality, thus creating unfair competition. Moreover, Brussels will continue to have a major role with regard to international trade negotiations. And given the importance of food as a basic commodity, the EU should be able to pursue community market and pricing policies in extreme situations, such as serious disruptions on the world market or following a succession of very poor harvests.

3.2 Structural actions

European structural actions are less effective than they could be.[9] Structural actions aim to reduce differences in GDP per head of population among the EU's regions. Billions of euros are spent on projects which improve infrastructure or modernise education, for instance. A number of studies have shown that these projects could significantly accelerate economic growth. However, analyses of actual growth in the recipient regions shows that only a small part of this potential is realised. Several of the poorest regions could expand by more than an additional 0.5% per year if structural actions had the optimum impact.

There are several reasons for the limited effectiveness of structural actions. Firstly, owing to the agreements made by the EU member states, a large slice of the support goes to relatively rich regions. Secondly, the criteria governing the distribution of resources do not always guarantee the selection of projects with the greatest social benefits. For instance, projects may not be sufficiently focused on stimulating economic growth in a region. And thirdly, national governments are prone to cutting their own regional support as soon as Brussels makes resources available.

Reform of structural actions is desirable, given the large gap between potential and actual effectiveness. Structural actions can be reformed in three ways. The first option is to give more powers to the European Commission, in the form of tighter rules, more intensive monitoring and better project evaluations.[10] The downside of this is that the administrative expenditure associated with structural actions will rise appreciably. The second option is to distribute the

[9] The section on structural actions is based on Ederveen *et al.*, 2002.

[10] The European Commission's proposals for the new structural actions tend in this direction.

resources on the basis of competition among specific projects. In this case the European Council would set the total budget, but not the allocations across the member states. National or regional governments could submit project proposals. The Commission would assess these on the basis of a number of objective criteria. The downside of this is also a heavier administrative burden as well as the risk of lobbying behaviour to influence the Commission's decisions. A third option is to run structural actions on national rather than regional lines. In this case the European Council would distribute the resources across the member states. On the basis of the redistribution principle underlying structural actions, only the poorest member states would be eligible; rich member states would be deemed to have sufficient resources to support their less developed regions. The poor member states would then decide themselves on which projects and regions they would spend the transfers from Brussels. This system of budgetary transfers would mean lower administrative costs and would be consistent with the subsidiarity principle, because spillovers between countries are small (see Brakman *et al*., 2005) and national or regional governments probably have more reliable information to allocate resources effectively.

3.3 Budget

What implications would the reform options outlined above have for the EU budget? To answer this question, Table 3.1 shows the appropriations for commitments (i.e. maximum annual financial allocations) for the various budget lines according to the financial framework 2007-2013 which was agreed upon by the Heads of Government in December 2005. The expenditures for competitiveness between 2006 and 2013 (line 1a) will increase by nearly 50%. These expenditures include outlays on research and development, which currently account for 0.04% of EU GNI. To an extent the increase fits in with a widely supported desire to invest more in knowledge in Europe.[11] The precise commitment to research and development is not clear, however, because this budget line also includes expenditure to improve the competitiveness of enterprises, trans-European networks, education and social policy, and the breakdown into the various components is not specified. Growth and employment receive greater attention in structural actions, which is why the Commission places all of its expenditure under the heading of sustainable growth. The scope for structural actions as a percentage of GNI is in the same order of magnitude as in the current budget (see Table 3.1). The market-related expenditure and direct payments under the common agricultural policy (line 2a) are slightly lower in nominal terms, which means that they are substantially lower as a percentage of GNI.

[11] See Bos and van Riel (2004). The Sapir Report proposes, in addition to reforms of agricultural policy and structural actions, the establishment of an EU fund for economic growth. This fund would finance projects in the areas of research, development and innovation, education and training, and infrastructure. The resources would be distributed on a competitive basis (in analogy with the second option for the reform of structural actions mentioned above) without taking account of the distribution across member states. See Sapir *et al.* (2004).

Table 3.1 European Commission proposals for the financial framework 2007-2013, in 2004 prices

	2006[a]		2007		2013	
	Euro bn	% GNI	Euro bn	% GNI	Euro bn	% GNI
1. Sustainable growth	46.6	0.44	51.1	0.47	57.8	0.46
1a. Competitiveness	8.8	0.08	8.3	0.08	12.6	0.10
1b. Structural actions	37.8	0.36	42.8	0.39	45.2	0.36
2. Sustainable management of natural resources	56.0	0.53	55.0	0.50	51.1	0.40
2a. Agriculture[b]	43.7	0.41	43.1	0.39	40.6	0.32
3. Citizenship, freedom, security and justice	2.3	0.02	1.1	0.01	1.9	0.02
4. The EU as a global partner	8.5	0.08	6..3	0.06	8.1	0.06
5. Administration[c]	4.4	0.04	7.1	0.07	7.7	0.06
Total appropriations for commitments	118.0	1.11	120.6	1.10	126.6	1.00

[a] To facilitate comparisons, expenditure for 2006 has been broken down according to the proposed new nomenclature.
[b] Market-related expenditure and direct payments.
[c] Including administrative expenditure for institutions other than the European Commission, pensions, European schools and compensations. Commission administrative expenditure is integrated into the first four expenditure headings.

Source: Council of the European Union (2005)

With the help of Table 3.1 it is possible to assess the budgetary implications of the reform options outlined in sections 3.1 and 3.2. Financial renationalisation of agricultural policy means that at least 80% of the outlays for nature management and agricultural policy are removed from the EU budget. The remaining budget covers the financing of the remaining policy commitments (e.g. market supervision, WTO, extreme situations). On the basis of the most modest budget (that of 2013), this boils down to a reduction in expenditure of broadly 0.35% of GNI. On the basis of the 2004 figures, the option to concentrate structural actions on the poor member states means that 16.6 billion euro will be released, or 0.16% of EU GNI, namely the amounts for the rich member states in 2004. For that year, nearly 17.5 billion euro is allocated to the poor member states (i.e. Spain, Greece, Portugal and the new member states). On balance, then, under these options the payments to the European Union are used mainly to finance the European institutions and the solidarity of the rich with the poor member states.

4 Net payment positions

What are the implications of the reform options for the member states' contributions to the EU budget? To answer this question this section first presents data on the net payment position of all member states and subsequently analyses the impact of the reform options on the net payment positions.

4.1 Net payment positions in 2004

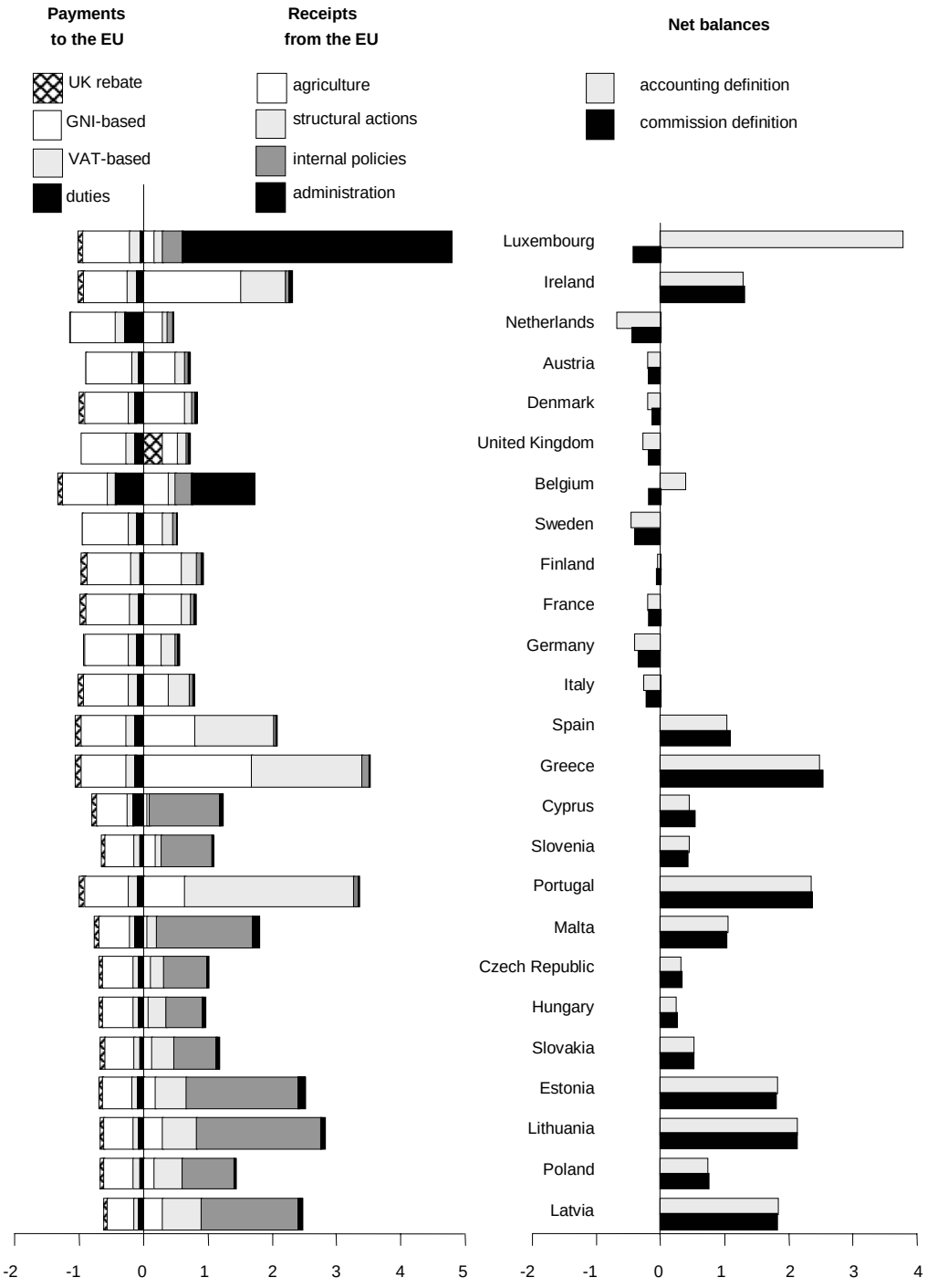
Figure 4.1 gives an overview of the net payment positions of the EU-25 member states in 2004 according to calculations by the European Commission.[12] The figure presents the contributions to the EU and the receipts from the EU for all member states, expressed as a percentage of GNI. The member states are ranked by GDP per head adjusted for purchasing power differences.

Payments to the EU are made from four sources. The first is the customs duties which the member states collect at the EU's external frontiers. The left (payments) part of Figure 4.1 shows that customs duties are particularly relevant for Belgium and the Netherlands. The reason is that the harbours of Rotterdam and Antwerp act as gateways to Europe. The second source of payments is a percentage of VAT receipts, which as a percentage of GNI is distributed roughly uniformly over member states. The third source, which accounts for the largest share of the EU revenues, is a percentage of the member states' gross national income (GNI). And the fourth is the rebate of 0.3% of GNI paid to the United Kingdom by the other member states. The cross-shaded part on the left side of Figure 4.1 shows that all member states contribute to the UK rebate. However, from 1999 onwards the four countries with the largest net contribution to the EU (the Netherlands, Germany, Sweden and Austria) have received a 75% discount on the rebate, which explains why their contribution is hardly visible in the figure. The cross-shaded part on the receipts side of the figure shows that all these contributions flow to the UK.

The receipts by the member states mainly consist of amounts which the EU spends in the member state in question within the framework of agricultural policy, structural actions and other internal policies. As a percentage of their GNI, Greece, Ireland and Spain benefit most from the common agricultural policy (see the 'Receipts' in the middle of Figure 4.1), followed by Denmark, Portugal, Finland, France and Austria. The revenues of other countries (including the new member states) from the common agricultural policy are considerably smaller. The figure also shows that outlays on structural actions mainly flow to the 'poor' members of the former EU-15: Portugal, Greece, Spain and Ireland. In terms of their GNI the new member states can be seen to benefit substantially less than these four countries from the structural actions. Receipts by the rich member states appear limited as a percentage of their GNI, but because of the size of their economies they still account for nearly half the EU budget for

[12] Appendix 1 contains the data underlying Figure 4.1 and Figure 4.2.

Figure 4.1 **Member states' payments to the EU, receipts from the EU and net payment positions in 2004, in % of GNI (with member states ranked according to GDP per head adjusted for purchasing power differences)**



Source: see Appendix 1, table A1.1

structural actions (see section 3.3). Internal policies concern expenditure on education and training, energy, consumer protection, the internal market, R&D and trans-European networks, plus pre-accession outlays. The latter factor explains why this budget item is important for the new member states. Finally, Belgium and Luxembourg receive most of the amounts the EU spends on administration, simply because most of the EU institutions are established in these two countries. Figure 4.1 illustrates that this comprises a substantial part of their receipts from the EU, in particular for Luxembourg.

The balance of all payments and receipts is the net payment position according to the accounting definition. The European Commission usually employs a different definition, which does not include transfers of customs duties and administrative receipts (for details, see the box and the footnote in table A1.1 in Appendix 1). Of course, the two definitions mostly differ for Luxembourg (administration), Belgium (administration and duties) and the Netherlands (duties).

Figure 4.1 shows that under both definitions the Netherlands is the largest net contributor to the EU budget, followed by Germany and Sweden. The poor southern member states and the new member states benefit on balance from the EU budget. Ireland is a striking exception: the country receives relatively large amounts from the EU, even though it ranks second among the EU-25 member states in terms of GDP per head (adjusted for purchasing power differences).

4.2 Impact of reform options on net payment positions

Figure 4.2 gives a simple and rough financial analysis of the reform options. The financial renationalisation of agricultural policy eliminates virtually all payments to the member states, while 0.35% of GNI is deducted from the EU's total agricultural expenditure (see section 3.3).[13] Reform of structural actions is effected by only maintaining the expenditure for the poorest EU-25 member states. For 2004, this means that 16.6 billion euro is no longer paid to the rich member states (out of total expenditure of 34.1 billion euro, see Table 4.1). Furthermore, on the payment side the British budget rebate has been abolished, since this was largely motivated by the small amounts received by the United Kingdom under the common agricultural policy. As a result of these reforms, the total EU budget shrinks considerably. The reduced commitments have been channelled back to the member states through a reduction in the GNI-based payments, so that the EU's net budgetary position remains unchanged.

[13] This leaves 0.08% of GNI for market supervision, international trade and extreme situations, which are not allocated to the member states.

Customs duties and the Netherlands's net payment position

Several definitions can be used to calculate the net payment positions of EU member states. According to the Dutch government, the Netherlands contributed 0.68% of GDP net to the EU in 2004; this is equivalent to 195 euro per head of population. But according to the European Commission, the amount in question came to 0.44% of GDP, or around 125 euro per head. Even so, according to the Commission's figures the Netherlands is also the largest net contributor to the EU budget (see Figure 4.1).

In calculating the net payment position, the Dutch government includes all payments to the EU, including all customs duties[a], which after all flow into the Dutch state coffers in the first instance. This is known as the "accounting definition". It is also used by the Commission, incidentally, when calculating the budgetary correction for new member states on accession. The accounting approach reflects a member state's financial relationship to the EU budget. The European Commission usually employs another definition, under which the customs duties collected in the port of Rotterdam are not regarded as payments by the Netherlands but as belonging to the EU "by nature", as it were. Based on this view, the customs duties are not included in calculating the net payment position. Accounting and legal arguments can be adduced in support of both definitions. From an economic perspective it is interesting to see who actually pays the customs duties. In other words, who will see a structural improvement in real income if the customs duties are reduced?[b]

A proportion of the customs duties collected in Rotterdam relates to transit goods destined for other countries, for instance Asian passenger cars and lorries transported to Germany via Rotterdam. The customs duties on these goods are therefore really paid by Germany or other EU countries. According to the Dutch national accounts, transit goods generate around 20% of customs duties. The remaining 80% of customs duties are paid by Dutch residents in the first instance, but these are eventually charged on to the final users, a substantial number of whom are based abroad. For instance, around 30-35% of customs duties relate to re-exports. In contrast with transit goods, ownership of re-export goods is transferred to Dutch residents, but these goods then leave the country with no or virtually no additional processing. Dutch re-export volumes are relatively large because the Netherlands is an attractive location for international distribution centres. Moreover, around 15-20% of the customs duties are levied on inter-company transactions and are thus eventually paid from export revenues. Taking all these factors into account, Dutch customers pay around 30% of all customs duties collected in this country.[c]

It should be noted in this context, however, that via the import of goods Dutch customers also pay a proportion of EU customs duties levied in other countries. This economic analysis thus leads to the conclusion that the impact of customs duties is determined ultimately by people's consumption patterns rather than by the location where the duties are levied.

[a] Adjusted for the compensation which the Netherlands receives for collecting the customs duties. Member states can withhold 25% of the collected amounts. A rough calculation shows that this is more than enough to cover all Dutch customs tasks.

[b] In so far as the supply of the goods in question is not fully price-elastic (over time), the levying of customs duties leads in part to lower prices on the world market and in effect imposes a burden on producers outside the EU. This complication is not taken into consideration here.

[c] See appendix 2 for an extensive analysis.

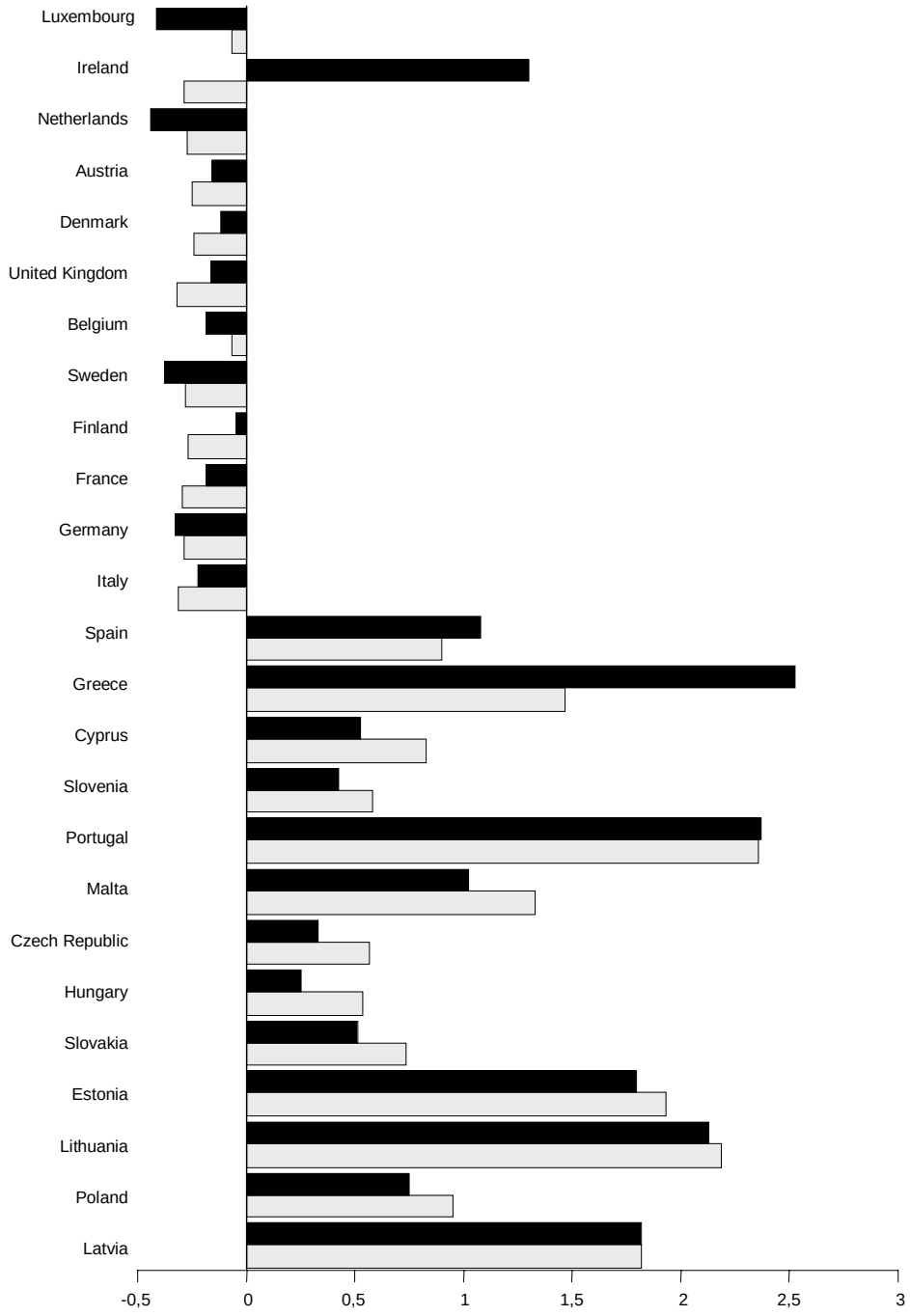
The reform options for agricultural policy and structural actions lead to an improvement in the net payment position of the Netherlands. With regard to agricultural policy, the reason is that the Dutch contribution to the agricultural component of the EU budget exceeds the current disbursements to Dutch farmers from Brussels. The downside of the improvement in the net position is lower export revenues. A "full" financial renationalisation of agriculture means that, leaving extreme situations aside, every form of price guarantee has to be abandoned. For the

Dutch agriculture and food industries this means above all that the export prices of sugar and dairy products will fall sharply. As a major exporter of these products, the Netherlands will be heavily affected in relative terms. Under the new arrangements, European customers will only pay the much lower world market prices. Dutch farmers will then lose the advantage of receiving relatively high prices for these products (compared to the world market). Although the magnitude of such a loss is difficult to calculate accurately, it will certainly amount to several hundred million euros. This loss is not visible in the budget effect, nor is the countervailing positive effect on consumer welfare.

When the reform options are implemented, the net payment positions of the rich member states are closer together under the European Commission definition than is the case at the moment (compare the two cases in Figure 4.2). Major net contributors such as the Netherlands, Germany, Belgium and Luxembourg will gain, while Ireland and Greece in particular will lose out considerably. This is because the rich member states' net payment positions are no longer determined by their receipts from the EU, but by their lower payments to the EU. Because the payments are based on VAT receipts and GNI, the Commission's benchmark for the net position (which is also expressed in GNI terms) is then logically more uniformly distributed across the member states.

Of course, the reforms would mean that commitments related to the multifunctional character of some forms of agriculture, such as landscape conservation and preservation of a high quality of life in rural areas, as well as regional support, will have to be borne by the member states themselves. Against this, their gross payments to the EU will come down. What is more, decentralisation is likely to lead to efficiency gains.

Figure 4.2 **Net payment position of EU member states before and after financial renationalisation of agricultural policy, reform of structural actions and abolition of the UK rebate, in %GNI.**



Source : see Appendix 1, table A1.2

5 Conclusion

Subsidiarity implies a radical different perception of the EU budget compared to a focus on net payment positions. Guided by subsidiarity, member states agree to allocate resources to achieve European objectives (e.g. the common interest or redistribution from rich to poor member states). Resources applied for the common interest include, for instance, strengthening the internal market or the European knowledge economy. For these objectives, each member state will contribute according to its means. The benefit this generates is not visible in the funds flowing from the EU budget back to the member states, but in greater prosperity for the EU's citizens and in solidarity with poorer member states. The distribution of that greater prosperity is not linked to the distribution of the receipts by member states from the EU budget. Outlays arising from solidarity with poor member states by definition benefit the latter, so that here too the net flow is not an issue for the rich member states.

A stronger emphasis on subsidiarity leads to reform options that more than halve the EU budget. That may give a signal to EU citizens who are critical about the 'scale' of the European Union. It may also create options to redirect expenditure to other appropriations, such as the support of Europe's knowledge economy, as advocated by, amongst others, Sapir *et al*. (2004) and Gros and Micossi (2005). Yet, also these options have to pass a subsidiarity test. For instance, it may seem reasonable from a subsidiarity perspective to finance research on an EU level, but it is less clear that the EU should be involved in support for small and medium sized enterprises.

The conclusion is that reforms of the agricultural policy and structural actions are crucial for the improvement of the financial perspectives of the European Union. Much more than in the sabre rattling about the payments by and receipts for individual member states, this is where the opportunities lie for an effective and efficient funding of European policies. Then, EU citizens are likely to continue to benefit substantially from European cooperation.

References

Badinger, H., 2005, Growth effects of economic integration: Evidence from the EU Member States, *Review of World Economics*, vol. 141, pp. 50-78.

Badinger, H. and F. Breuss, 2004, What has determined the rapid post-war growth of intra-EU trade?", *Review of World Economics*, vol. 140, 2004, pp. 31-51

Baldwin, R., 2005, The real budget battle: une crise peut en cacher une autre, CEPS Policy Brief, no. 75, Brussels.

Brakman, S., H. Garretsen, J. Gorter, A. van der Horst and M. Schramm, 2005, *New economic geography: Empirics and regional policy*, CPB, The Hague.

Bos, M.G., and B. van Riel, 2004 Meerjarig financieel kader van de EU", *Economisch Statistische Berichten*, vol. 89, pp. 396-398.

Cacheux, J. le, 2005, European budget: The poisonous budget rebate debate, Notre Europe, Studies and Research, no. 41.

Council of the European Union, 2005, *Financial Perspective 2007-2013*, 19 December 2005, Brussels.

CPB, 2005, *Macro Economische Verkenning 2006*, The Hague.

Deardorff, A.V., and R.M. Stern, 2004, EU expansion and EU growth, in A.V. Deardorff, *The past, present and future of the European Union*, IEA conference, vol. 1338, Palgrave / Macmillan, pp. 74-102.

Dimaranan, Betina V. and Robert A. McDougall, Editors (2005). *Global Trade, Assistance, and Production: The GTAP 6 Data Base*, Center for Global Trade Analysis, Purdue University.

Ederveen, S., J. Gorter, R. de Mooij and R. Nahuis (2002), *Funds and games: The economics of European cohesion policy*, CPB, The Hague.

European Commission, 2005, Allocation of 2004 EU operating expenditure by member state, DG Budget.

Frankel, J., and A. Rose, 2002, An estimate of the effect of common currencies on trade and income, *Quarterly Journal of Economics*, 2002, pp. 437-466.

Gros, D., and S. Micossi, 2005, A better budget for the European Union: more value for money, more money for value, CEPS Policy Brief, no. 66, Brussels.

Lejour, A.M., and R. Nahuis,2004, EU accession and the catching up of the Central and East European countries, in A.V. Deardorff, *The past, present and future of the European Union*, IEA conference, vol. 1338, Palgrave / Macmillan, pp. 137-158.

Lewer, J.J., and H. van den Berg, "How large is international trade's effect on economic growth?, *Journal of Economic Surveys*, vol. 17, 2003, pp. 363-396.

Mooij, R. de, and P. Tang, 2003, *Four futures of Europe*, CPB, The Hague.

Peet, J., 2005, The EU budget; a way forward, Centre for European Reform Policy Brief, London.

Pelkmans, J., 2004, Eenvoudige EU-kennistoets voor economen, *Economisch Statistische Berichten*, vol. 89, no. 4434, pp. 246-248.

Sapir, A., P. Aghion, G. Bertola, M. Hellwig, J. Pisani-Ferry, D.K. Rosati, J. Vinals and H. Wallace, 2004, *An agenda for a growing Europe: Making the EU economic system deliver*, Oxford University Press.

Appendix 1 Net payments data

Table A1.1 Gross and net payment positions per member state, 2004, in % of GNI (with member states ranked according to GDP per head, adjusted for purchasing power differences)

	Luxem-bourg	Ireland	The Net-herlands	Austria	Denmark	United Kingdom	Belgium	Sweden
Payments to the EU	– 1.02	– 1.02	– 1.14	– 0.89	– 1,01	– 0.67	– 1.34	– 0.95
Customs duties etc	– 0.06	– 0.10	– 0.30	– 0.08	– 0.13	– 0.13	– 0.44	– 0.11
VAT-based payments	– 0.16	– 0.15	– 0.14	– 0.11	– 0.11	– 0.15	– 0.12	– 0.13
GNI-based payments	– 0.72	– 0.68	– 0.69	– 0.70	– 0.68	– 0.69	– 0.69	– 0.70
UK rebate[a]	– 0.09	– 0.09	– 0.01	– 0.01	– 0.08	0.30	– 0.09	– 0.01
Receipts from the EU	4.78	2.30	0.46	0.71	0.83	0.41	1.71	0.51
Agriculture	0.17	1.51	0.29	0.50	0.64	0.23	0.38	0.30
Structural actions	0.13	0.69	0.08	0.14	0.10	0.13	0.12	0.15
Internal policies	0.30	0.07	0.08	0.06	0.07	0.04	0.25	0.06
Administrative expenditure	4.18	0.03	0.01	0.01	0.02	0.01	0.96	0.01
Net balance (acc. def.)	3.76	1.28	– 0.68	– 0.19	– 0.18	– 0.26	0.38	– 0.44
Net balance (Com. def.)[b]	– 0.41	1.30	– 0.44	– 0.16	– 0.12	– 0.16	– 0.19	– 0.38

	Finland	France	Germany	Italy	Spain	Greece	Cyprus	Slovenia
Payments to the EU	– 0.96	– 0.98	– 0.93	– 1,03	– 1.06	– 1.06	– 0.79	– 0.66
Customs duties etc	– 0.06	– 0.07	– 0.11	– 0.09	– 0.12	– 0.12	– 0.16	– 0.05
VAT-based payments	– 0.14	– 0.14	– 0.12	– 0.15	– 0.15	– 0.15	– 0.10	– 0.10
GNI-based payments	– 0.68	– 0.68	– 0.68	– 0.69	– 0.70	– 0.70	– 0.47	– 0.45
UK rebate[a]	– 0.09	– 0.09	– 0.02	– 0.09	– 0.09	– 0.09	– 0.07	– 0.06
Receipts from the EU	0.92	0.79	0.54	0.77	2.07	3.52	1.23	1.09
Agriculture	0.58	0.58	0.28	0.38	0.80	1.68	0.06	0.19
Structural actions	0.24	0.15	0.21	0.34	1.22	1.72	0.04	0.09
Internal policies	0.08	0.05	0.04	0.05	0.04	0.10	1.09	0.78
Administrative expenditure	0.02	0.02	0.01	0.01	0.01	0.10	0.03	0.02
Net balance (acc. def.)	– 0.05	– 0.19	– 0.39	– 0.26	1.01	2.46	0.43	0.43
Net balance (Com. def.)[b]	– 0.05	– 0.19	– 0.33	– 0.22	1.08	2.52	0.53	0.43

Continuation of table A1.1

	Portu-gal	Malta	Czech Rep.	Hungary	Slovakia	Estonia	Lithua-nia	Poland	Latvia	EU-25
Payments to the EU	– 1.01	– 0.75	– 0.69	– 0.70	– 0.66	– 0.69	– 0.69	– 0.68	– 0.62	0.93
Customs duties etc	– 0.09	– 0.12	– 0.07	– 0.07	– 0.06	– 0.09	– 0.08	– 0.06	– 0.07	0.12
VAT-based payments	– 0.14	– 0.10	– 0.10	– 0.10	– 0.09	– 0.10	– 0.09	– 0.10	– 0.08	0.14
GNI-based payments	– 0.68	– 0.47	– 0.46	– 0.47	– 0.46	– 0.44	– 0.45	– 0.46	– 0.41	0.68
UK rebate[a]	– 0.09	– 0.07	– 0.06	– 0.06	– 0.06	– 0.06	– 0.06	– 0.06	– 0.06	0.00
Receipts from the EU	3.35	1.79	1.00	0.93	1.17	2.50	2.81	1.42	2.46	– 0.90
Agriculture	0.63	0.06	0.11	0.08	0.12	0.19	0.29	0.16	0.30	– 0.43
Structural actions	2.63	0.15	0.20	0.27	0.35	0.46	0.54	0.44	0.60	– 0.34
Internal policies	0.07	1.49	0.67	0.57	0.67	1.76	1.93	0.81	1.50	– 0.09
Admin. expenditure	0.01	0.09	0.02	0.02	0.02	0.08	0.04	0.01	0.06	– 0.05
Net balance (acc. def.)	2.34	1.03	0.30	0.23	0.51	1.81	2.12	0.74	1.83	0.03
Net balance (Com. def)[b]	2.37	1.02	0.33	0.25	0.51	1.79	2.13	0.75	1.82	0.00

[a] The Berlin Council in 1999 agreed that the Netherlands, Germany, Sweden and Austria would receive a 75% discount on the funding of the British budget rebate. Consequently these member states' contributions are lower than those of the others.

[b] Calculated as operational revenues (agriculture plus structural actions plus internal policies) minus the sum of VAT- and GNI-based payments (with an adjustment ensuring that the sum of all member states' net payment positions comes to zero) minus the British budget rebate.

Source: European Commission (2005).

Table A1.2 Gross and net payment positions per member state in case of financial renationalisation of agriculture, reform of structural actions and abolition of the UK budget rebate, 2004, in % of GNI

	Luxem-bourg	Ireland	The Net-herlands	Austria	Denmark	United Kingdom	Belgium	Sweden
Payments to the EU	– 0.38	– 0.42	– 0.61	– 0.35	– 0.41	– 0.45	– 0.73	– 0.41
Customs duties etc	– 0.06	– 0.10	– 0.30	– 0.08	– 0.13	– 0.13	– 0.44	– 0.11
VAT-based payments	– 0.16	– 0.15	– 0.14	– 0.11	– 0.11	– 0.15	– 0.12	– 0.13
GNI-based payments	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16
UK rebate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Receipts from the EU	4.48	0.11	0.09	0.07	0.10	0.05	1.22	0.07
Agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Structural actions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Internal policies	0.30	0.07	0.08	0.06	0.07	0.04	0.25	0.06
Administrative expenditure	4.18	0.03	0.01	0.01	0.02	0.01	0.96	0.01
Net balance (acc. def.)	4.10	– 0.31	– 0.52	– 0.28	– 0.31	– 0.40	0.49	– 0.34
Net balance (Com def)	– 0.07	– 0.28	– 0.27	– 0.25	– 0.24	– 0.32	– 0.07	– 0.28

	Finland	France	Germany	Italy	Spain	Greece	Cyprus	Slovenia
Payments to the EU	– 0.36	– 0.37	– 0.40	– 0.41	– 0.44	– 0.43	– 0.42	– 0.31
Customs duties etc	– 0.06	– 0.07	– 0.11	– 0.09	– 0.12	– 0.12	– 0.16	– 0.05
VAT-based payments	– 0.14	– 0.14	– 0.12	– 0.15	– 0.15	– 0.15	– 0.10	– 0.10
GNI-based payments	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16
UK rebate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Receipts from the EU	0.09	0.07	0.05	0.06	1.27	1.84	1.16	0.90
Agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Structural actions	0.00	0.00	0.00	0.00	1.22	1.72	0.04	0.09
Internal policies	0.08	0.05	0.04	0.05	0.04	0.10	1.09	0.78
Administrative expenditure	0.02	0.02	0.01	0.01	0.01	0.01	0.03	0.02
Net balance (acc. def.)	– 0.27	– 0.30	– 0.35	– 0.35	0.83	1.40	0.74	0.59
Net balance (Com def)	– 0.27	– 0.30	– 0.28	– 0.28	0.90	1.46	0.83	0.58

Continuation of table A1.2

	Portu-gal	Malta	Czech Rep.	Hungary	Slovakia	Estonia	Lithua-nia	Poland	Latvia	EU-25
Payments to the EU	– 0.40	– 0.38	– 0.34	– 0.34	– 0.31	– 0.35	– 0.34	– 0.32	– 0.32	0.42
Customs duties etc	– 0.09	– 0.12	– 0.07	– 0.07	– 0.06	– 0.09	– 0.08	– 0.06	– 0.07	0.12
VAT-based payments	– 0.14	– 0.10	– 0.10	– 0.10	– 0.09	– 0.10	– 0.09	– 0.10	– 0.08	0.14
GNI-based payments	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	– 0.16	0.16
UK rebate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Receipts from the EU	2.72	1.72	0.88	0.85	1.05	2.30	2.52	1.26	2.15	– 0.39
Agriculture	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	– 0.08
Structural actions	2.63	0.15	0.20	0.27	0.35	0.46	0.54	0.44	0.60	– 0.17
Internal policies	0.07	1.49	0.67	0.57	0.67	1.76	1.93	0.81	1.50	– 0.09
Admin. expenditure	0.01	0.09	0.02	0.02	0.02	0.08	0.04	0.01	0.06	– 0.05
Net balance (acc. def.)	2.32	1.34	0.55	0.52	0.74	1.96	2.18	0.94	1.84	0.03
Net balance (Com. def.)	2.35	1.33	0.57	0.54	0.74	1.93	2.19	0.95	1.82	0.00

Appendix 2 Import duty incidence

Introduction

The purpose of this Appendix is to assess the extent to which import duties collected in the Netherlands are borne by customers abroad and to assess tariff incidence on final demand in the Netherlands vis-à-vis incidence elsewhere. The appendix shows that through trade the incidence of the duties is shifted to customers in other countries and that tariff incidence is more evenly spread over member states than tariff collection.

International trade is in general more important for small member states than it is for larger ones. This is illustrated in table A2.1, which lists the member states that are also OECD-members (EU-19) in decreasing order of their ratios of external goods imports with respect to GDP in 2001. In small member states, such as Belgium, Luxembourg, the Netherlands, the Czech Republic, Slovakia and Hungary, trade is relatively important (total commodity imports as a percentage of GDP ranging from 68% in Belgium to 41% in the Netherlands). With the exception of land-locked Luxembourg, imports from non-member states are relatively important as well, its value ranging from 19% of GDP in Slovakia to 15% in Hungary. Hence, the value of import duties collected in these smaller EU-countries is likely to be relatively large as well.

Table A2.1 External and internal goods trade of the member states of EU-19, as a percentage of GDP, 2004

	Imports		Exports		Balance	
	External	EU-19	External	EU-19	External	EU-19
Slovakia	19	40	9	47	-10	7
Belgium	18	49	17	56	-1	6
Netherlands	17	23	10	36	-7	12
Czech Republic	15	37	8	44	-7	6
Hungary	15	35	10	35	-5	1
Ireland	12	16	18	30	6	14
Poland	10	20	6	19	-4	-1
Finland	10	13	13	15	3	2
Germany	9	13	10	17	1	5
United Kingdom	8	10	6	8	-2	-2
Austria	8	24	10	22	2	-2
Greece	8	10	3	3	-5	-8
Sweden	8	16	13	16	5	0
Spain	7	13	4	11	-3	-3
Italy	7	10	7	10	0	0
Denmark	7	16	8	18	2	1
France	7	11	6	11	-1	0
Portugal	6	20	4	14	-3	-7
Luxembourg	4	40	4	28	0	-12
EU-19 average	9	14	8	16	-1	1

Source: OECD International Trade Statistics; OECD National Accounts; rearrangement CPB

To some extent, the table shows the importance of geographical location. A relatively large importer as Luxembourg, for example, hardly imports from outside EU-19. Belgium and the Netherlands with their huge seaports act as a gateway into the EU for external imports. They run a deficit in external trade (1% of GDP in Belgium, 7% in the Netherlands) and a surplus in internal trade (6% in Belgium, 12% of GDP in the Netherlands). The deficits in external trade and surpluses in internal trade of the Czech Republic, Slovakia and Hungary presumably indicate the importance of these countries as a production location for serving the EU-market. Thus, for these countries one may expect that a considerable part of the burden of paying import duties is shifted to customers in other states.

Our approach consists of a static input-output analysis. Using National Accounts data we assess the extent of shifting the incidence of import duties to foreign customers and tariff incidence on final demand by applying input-output techniques to the data these accounts provide. The analysis is a structural and static one and assumes that all variable trading and production costs (including tariffs on imports) are in the end borne by final customers. This is in agreement with micro-economic theory which tells us that firms will fully charge their customers for the variable costs they incur, irrespective of the nature of competitive circumstances. The techniques applied require assumptions of fixed proportions. Hence, the outcomes are of an indicative nature.

What are the destinations of Dutch imports and Dutch import duties?

In assessing the destinations of Dutch imports and Dutch import duties, we use the Dutch National Accounts for 2004 and the globally integrated national accounts for 2001 of the Global Trade Analysis Project (GTAP).[14] Most Dutch imports find their destination abroad. It is important to note that the import data of the Dutch National Accounts do not include transit trade that simply passes through the Netherlands without any ownership transfer to Dutch inhabitants. The imports that are covered by the Dutch National Accounts may reach foreign customers through two channels: either through direct re-export or through indirect re-exports. In the case of direct re-exports, the imported goods or services are re-exported almost without any transformation, whereas in the case of indirect re-exports the imports are used as intermediates in Dutch production and the produced goods are then exported.

In 2004, 36% of Dutch imports was directly re-exported while 25% indirectly got a foreign destination by being used up in the production of exported goods and services (see table A2.2). Hence, a major part (61%) of Dutch imports arrives at a destination abroad. Electro-technical and chemical products contribute in relatively large amounts through direct re-exports while indirect re-exports are relatively large for Commercial services and Other industries.

About 20% of the import duties collected in the Netherlands is borne by transit trade. Assuming that the remaining duties would proportionally rest upon Dutch imports, we would conclude from table A2.2 that 69% of the import tariffs collected in the Netherlands in 2004 are

[14] We use the GTAP-6 database (Dimaranan and McDougall, 2005).

Table A2.2 **Foreign destinations of Dutch imports, as a percentage of total non-transit imports by industry, 2004**

	Direct re-exports	Indirect re-exports	Total	Idem, as % of Grand Total
Agriculture	39	29	68	3
Food and beverages	29	24	52	5
Chemical industry	46	32	79	15
Metal products	34	37	70	6
Machinery	36	19	55	3
Electro-technical products	76	5	82	28
Transportation vehicles	17	15	33	3
Other manufacturing	32	13	45	7
Commercial services	14	35	49	14
Other industries	10	42	52	14
Grand Total	36	25	61	100

Source: National Accounts 2004, Statistics Netherlands; calculations CPB

in the end paid by foreign buyers. This percentage is arrived at as the sum total of 20% on transit trade, 29% (=0.8*36%) on direct re-exports and 20% (=0.8*25%) on indirect re-exports.

As the import duties on non-transit imports are directly available in the Dutch National Accounts this guesstimate can be improved. Using these data, we arrive at an aggregate figure that comes very close to it: about 70% of the incidence of import duties is shifted abroad, the share of duties on direct re-exports being somewhat higher than expected on the basis of import data only (see table A2.3).

Table A2.3 **Foreign destinations of Dutch import duties, as a percentage of total import duties by industry, 2004**

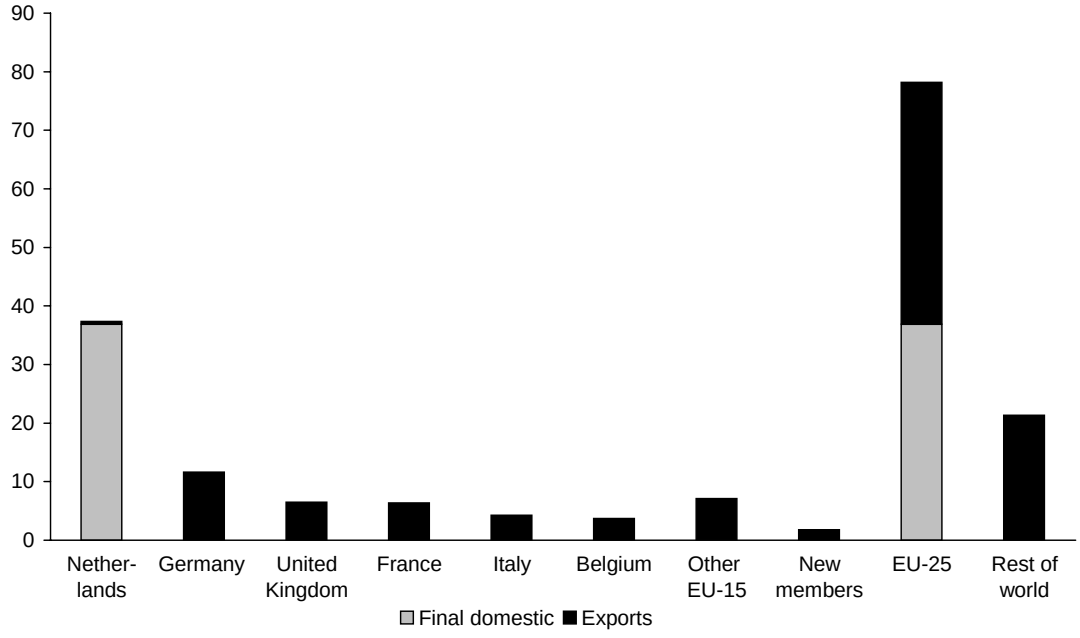
	Transit export	Direct re-export	Indirect re-export	Total
Agriculture	9	35	27	71
Food and beverages	26	21	18	64
Chemical industry	16	39	27	82
Metal products	42	20	21	83
Machinery	12	31	17	60
Electro-technical products	16	64	4	85
Transportation vehicles	22	14	12	47
Other manufacturing	16	27	11	54
Commercial services	0	0	0	0
Other industries	32	15	36	82
Grand total	20	33	17	70

Source: National Accounts 2004, Statistics Netherlands; calculations CPB

Again, the contribution of direct re-exports of electro-technical products is relatively large; the chemical industry is also contributing relatively much through both direct and indirect re-exports while a considerable amount of duties is paid directly by foreigners on transit trade in food and beverages.

Using the GTAP-6 database – and assuming that the duty exports are borne proportionally by the underlying bilateral export flows by industry – we can derive the geographical destinations of Dutch non-transit duty exports. Unsurprisingly, a major part (more than 40%) of Dutch non-transit duties is paid by final consumers in the other member states, notably in Germany (12%), the United Kingdom and France (both 6%), see figure A2.1. A considerable part is also re-exported to the rest of the world where final consumers pay more than 20% of Dutch tariffs on non-transit trade. A very small part (0.5%) re-enters the Netherlands embodied in final products. Assuming that the duties on Dutch transit exports are fully borne by final consumers in other EU-countries, final customers in other member states pay about 53% (=0.8*41 +20) of the total Dutch import duty bill, those in the rest of the world 17% and Dutch final buyers about 30%.

Figure A2.1 Percentage destinations of Dutch non-transit import duties, 2004



Source: GTAP-6 database, calculations CPB

What is the incidence of import duties in the Netherlands?

Input-output analysis of the Dutch accounts shows the tariff incidence on Dutch demand (see table A2.4). The table brings to the fore two aspects of tariff incidence. First, although tariffs on commercial services imports do not exist, demands for services are not tariff-free, because in

the process of producing services tariffs on non-service inputs are incorporated. Second, Dutch exports – bearing tariffs – obviously are a vehicle of shifting tariff incidence abroad. But by the same token Dutch import values themselves must contain tariffs, when they enter the Netherlands from other member states. Hence, the tariff incidences shown in the table underestimate the tariff contents of demand and an international analysis is needed to assess final Dutch tariff incidence.

Table A2.4 Incidence of Dutch non-transit duties on domestic and foreign demands by industry, as a percentage of demands, the Netherlands, 2004

	Final domestic demand			Export demand		
	Directly imported	Domestically produced	Total	Direct re-exports	Indirect re-exports	Total
Agriculture	1,5	0,1	0,7	1,5	0,1	0,5
Food and beverages	1,2	0,3	0,6	1,2	0,3	0,5
Chemical industry	0,6	0,2	0,4	0,6	0,2	0,3
Metal products	0,5	0,2	0,3	0,5	0,2	0,3
Machinery	0,6	0,2	0,4	0,6	0,2	0,3
Electro-technical products	0,3	0,1	0,3	0,3	0,1	0,3
Transportation vehicles	0,4	0,2	0,4	0,4	0,2	0,2
Other manufacturing	0,9	0,2	0,5	0,9	0,2	0,5
Commercial services	0,0	0,0	0,0	0,0	0,1	0,1
Other industries	0,0	0,0	0,0	0,2	0,0	0,0
Total	0,5	0,0	0,1	0,5	0,1	0,2

Source: National Accounts 2004, Statistics Netherlands; calculations CPB

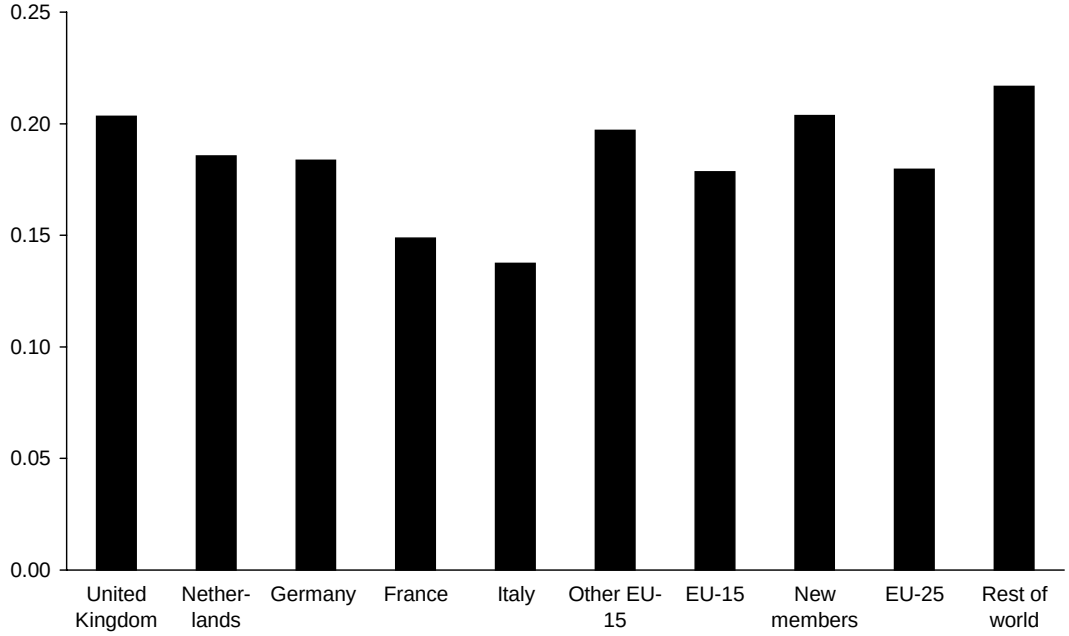
The GTAP-6 international accounts are a suitable data source for this assessment. These accounts include tariffs on bilateral trade flows for 2001. The tariffs still contain bilateral import duties and agricultural levies on trade between the member states of EU-15 and the new members that joined the EU on May 1st, 2004. To reflect the current situation, we replace these tariffs by estimates for 2004 by industry and member state. These estimates are arrived at by applying Dutch tariff rates (i.e. Dutch 2004 import duties and agricultural levies expressed as ratios of Dutch 2004 external imports by industry) to the external imports by industry of each member state, scaling the tariffs afterwards to the sum total of 2004 tariff transfers to the European budget[15].

It then appears that final tariff incidence in the Netherlands comes very close to the EU-average (see figure A2.2). The figure shows relatively low incidence in Italy. This is caused by a relatively small share of imports in total demand. The figure also indicates a somewhat higher tariff incidence in the new member states (EU-10) compared to those of EU-15. The cause of this difference is the smaller relative size in the new member states of the services sector (which

[15] The scaling is to the sum total of transfers of traditional own resources to the EU-budget raised by 33% to reflect collection costs. In arriving at the sum total the transfers of the new member states have been raised by 50% to reflect the date of their accession (cf. Table 4a in European Commission, 2005).

indirectly bears some duties but still has tariff rates that are much smaller than those on manufacturing sectors). Tariff incidence in the rest of the world is somewhat higher than in the European Union. The cause of this is higher tariffication of both manufactured products and services.

Figure A2.2 Tariff incidence as a percentage of final demand, 2004



Source: GTAP-6 database, calculations CPB

Conclusions

Our assessments are the result of static input-output analysis of National Accounts data[16]. Using the Dutch National Accounts of 2004 to assess the extent of shifting the Dutch tariff burden abroad, we conclude that about 70% of the tariffs collected in the Netherlands are paid by foreign customers. Using detailed National Accounts data of the Global Trade Analysis Project (GTAP) for 2001 we assess the destinations of these tariffs. It turns out that other EU-countries pay the major part of the Dutch tariff bill. The bill passed on to customers in non-EU countries is also considerable.

While the Dutch export most of the import duties levied in the Netherlands, they also import duties levied elsewhere in the EU. Assessing total tariff incidence globally we conclude that Dutch tariff incidence is in line with the incidence in the other member states of the European Union.

[16] The computational details of these can be found in http://www.cpb.nl/eng/pub/memorandum/128.

About ENEPRI

The European Network of Economic Policy Research Institutes (**ENEPRI**) is composed of leading socio-economic research institutes in practically all EU member states and candidate countries that are committed to working together to develop and consolidate a European agenda of research. **ENEPRI** was launched in 2000 by the Brussels-based Centre for European Policy Studies (CEPS), which provides overall coordination for the initiative.

While the European construction has made gigantic steps forward in the recent past, the European dimension of research seems to have been overlooked. The provision of economic analysis at the European level, however, is a fundamental prerequisite to the successful understanding of the achievements and challenges that lie ahead. **ENEPRI** aims to fill this gap by pooling the research efforts of its different member institutes in their respective areas of specialisation and to encourage an explicit European-wide approach.

ENEPRI is composed of the following member institutes:

CASE	Center for Social and Economic Research, Warsaw, Poland
CEE	Center for Economics and Econometrics, Bogazici University, Istanbul, Turkey
CEPII	Centre d'Études Prospectives et d'Informations Internationales, Paris, France
CEPS	Centre for European Policy Studies, Brussels, Belgium
CERGE-EI	Centre for Economic Research and Graduated Education, Charles University, Prague, Czech Republic
CPB	Netherlands Bureau for Economic Policy Analysis, The Hague, The Netherlands
DIW	Deutsches Institut für Wirtschaftsforschung, Berlin, Germany
ESRI	Economic and Social Research Institute, Dublin, Ireland
ETLA	Research Institute for the Finnish Economy, Helsinki, Finland
FEDEA	Fundación de Estudios de Economía Aplicada, Madrid, Spain
FPB	Federal Planning Bureau, Brussels, Belgium
IE-BAS	Institute of Economics, Bulgarian Academy of Sciences, Sofia, Bulgaria
IER	Institute for Economic Research, Bratislava, Slovakia
IER	Institute for Economic Research, Ljubljana, Slovenia
IHS	Institute for Advanced Studies, Vienna, Austria
ISAE	Istituto di Studi e Analisi Economica, Rome, Italy
NIER	National Institute of Economic Research, Stockholm, Sweden
NIESR	National Institute of Economic and Social Research, London, UK
NOBE	Niezalezny Osrodek Bana Ekonomicznych, Lodz, Poland
PRAXIS	Center for Policy Studies, Tallinn, Estonia
RCEP	Romanian Centre for Economic Policies, Bucharest, Romania
SSB	Research Department, Statistics Norway, Oslo, Norway
SFI	Danish National Institute of Social Research, Copenhagen, Denmark
TÁRKI	Social Research Centre Inc., Budapest, Hungary

ENEPRI publications include three series: Research Reports, which consist of papers presenting the findings and conclusions of research undertaken in the context of ENEPRI research projects; Working Papers, which constitute dissemination to a wider public of research undertaken and already published by ENEPRI partner institutes on their own account; and thirdly, Occasional Papers (closed series) containing a synthesis of the research presented at workshops organised during the first years of the network's existence.

European Network of Economic Policy Research Institutes
c/o Centre for European Policy Studies
Place du Congrès 1 ▪ 1000 Brussels ▪ Tel: 32(0) 229.39.11 ▪ Fax: 32(0) 219.41.51
Website: http//:www.enepri.org ▪ E-mail: info@enepri.org