

REGIONAL ACCOUNTS IN ACTION:
CONCERNING METHODOLOGICAL PROBLEMS FROM
A BELGIAN PERSPECTIVE

BY H. CAPRON AND F. THYS-CLEMENT

University of Brussels

In this paper we address the methodological problems encountered in the building of regional accounts. These problems are discussed by describing the methodological and conceptual options applied in an original and recent experience with regional accounts in Belgium. A comparison is offered with alternative choices concerning the regionalisation of main aggregates made in some other countries. The reasons for the urgency of an appropriate regional accounting framework (a regional equivalent of the universal SNA) are outlined in the conclusion.

I. INTRODUCTION

Contrary to national accounting systems whose theoretical bases seem well-established, the methodologies adopted for regional accounting are most disparate, the regional disaggregation of national aggregates implying hypotheses, at times, arbitrary. Three principal reasons for this methodological diversity can be advanced: firstly, the difficulty in isolating in a clear manner the regional aggregates strongly influenced by the narrow interpenetration of regional economies; secondly, the inadequacy of statistical tools vis à vis regional accounting information, and finally, the many differing objectives for which regional accounting is done. All this leads to the statement "at present, the objectives of regional accounting appear badly defined and ill fitted to needs" (Montot-Menente and Pucch, 1985).

Specifically in the case of Belgium, work done on regional accounting dates back more than twenty years and has been done for mainly political reasons. In fact, the process of regionalisation of the country had the effect of raising many questions i.e. "Exactly how great is each region's financial capacity?" For an idea of the nature of this research, one should refer to Marées's critical analysis (Marée, 1980) from which arose many attempts at evaluating the Belgian regional disequilibrium.

Belgium is characterized by the complexity of its political system. The country is divided into three regions (Brussels, Flanders and Wallonia) and further divided into nine provinces. As well, there are three linguistic communities—the French speaking group in Brussels and Wallonia, the Dutch speakers in Brussels and Flanders and the German speakers in Wallonia. Following the revision of the constitution in 1988, the three regions have a fairly large degree of autonomy in the implementation of their own economic development policy. The linguistic communities have decision power over pertinent cultural, educational and social service matters. Financing for the regions and communities is done on the basis of a retrocession of the receipts at the Central State level.

The quickening pace of Belgium's federalisation has underscored the need for reliable regional information, which requires a good regional accounting system. The experience of regional accounting in Belgium to date shows that the absence of a coherent plan leads to serious questions being posed as to the pertinence of fundamental options taken in the course of the accounting. As is pointed out by Walters, "The development of a set of SNA guidelines and recommendations concerning regional accounts would be welcomed to provide a spur and a common basis for regional accounting estimates (Walters, 1987, p. 402)." Although the Office of Statistics of the European Community is at work on an elaboration of a general framework, usage even throughout the Community is partial and disparate. Nevertheless, the creators of the statistical program of the EEC (Eurostat, 1988) hope to break new ground in the process of disaggregate regional economic accounts. The Belgian Office of National Statistics will be asked to provide information in order to develop this program, but it will find it most difficult to do so completely. The situation in Belgium is quite exemplary in its illustration.

II. REGIONAL ACCOUNTING IN BELGIUM

II.1. *Official Frame of Reference*

Belgian national accounts are established and conform to the normalized system of national accounting proposed by the O.E.C. in 1958. Although there exist alternative presentations published by international bodies [former system SNA (OECD), system EAS (EEC)], use of information supplied by these accounts is generally made through reference to the national system. This is equally applicable to regional accounting. It should be stressed however, that although the official publication of these accounts from a production approach developed rapidly, such is not the case with the others (and *a fortiori* that which concerns the economic agents).¹

From a production viewpoint, in 1962 the first estimation of sectorial added value and gross domestic product was obtained for the period 1955-59.² Unfortunately the instability of the legal definition of the linguistic regions prevents a comparison of aggregates published over a long period. As well, there is a considerable time lag involved in the publication of this information, thus diminishing its usefulness to a considerable extent.³ As the General Direction of Regional Policy of the EEC has quite rightly reiterated, "It is essential that during this period of rapid economic evolution, analyses reflect as much as possible the situation of the moment, especially that concerning regional accounts by sector and branch and the employment and unemployment statistics" (Eurostat, 1984, document 1, p. 5).

¹These data are available at the provincial and regional levels. The regional dimensions have been set not according to economic criteria, but rather along political lines (principally dictated by linguistic problems).

²Values calculated at factor cost and at current and constant prices.

³As illustrative of this, note that the statistics for the years 1978-79 were published in 1983 and it was not until 1987 that the period 1980-84 was presented.

This situation led Belgian decision-makers to look for organizations, other than the National Institute of Statistics (N.I.S.), to create instruments to elaborate regional policy measures. In that respect, a parallel between the evolution of the regional and national accounts can be drawn. The set-up of a general framework for presentation of national accounts dates from 1953. The first applications were often the result of university research, the work eventually being taken over by official organs.⁴

Although the first important recommendations concerning regional accounting date from the same time period, as has already been noted, there is currently no international standard detailing the methodology of regional accounting. The adoption in 1972 by the EEC of an EAS-Reg does not cover all the problematic aspects, and the degree of application of the system varies according to country. It should be noted as well that despite all the effort put towards development of a regional accounting system, national accounting systems have an advance of about forty years.

Within Belgium, a concrete example of a systematic presentation of the accounting of a particular region can be found in the work done for the Walloon Region Ministry by a university group. They were assigned the task of detailing the accounting of Wallonia. This work (DULBEA, FUNDP, GREA and SEPUEL, 1990) convinced the group to adopt certain positions both at the conceptual and the methodological levels and to consider solutions both within the existing institutional context and within a foreseen evolutionary one. The experience is illustrative of obstacles encountered when making up true regional accounts, which represent an irreplaceable source of order in the data used in a macroeconomic scale model.

II.2. *Regional Accounting Practices*

From a methodological viewpoint, regional accounting systems are often only a mimicry of national accounting systems, the framing of the national accounts being the only tangible point of reference and as such, the lesser of two evils. Differences arise in the methods for estimating the different aggregates (i.e. constraint of disaggregation at the national level), the problem of localizing certain national accounts (i.e. the public debt problem) and the difficulty in capturing inter-regional flows (a consequence of no inter-regional borders). The imperfect tools to gather regional statistics complicate the task further and often necessitate the estimation of regional values through a breakdown of national figures by means of indirect inference. The consequence of this is that in the absence of a regional statistical tool, the only practical method lies in a regionalisation of national accounts rather than in the development of an autonomous regional accounting system.

⁴In Belgium the DULBEA played a pioneering role by publishing in 1953 the first elements of a national accounting (for years 1948-51). An official commission was established in 1956 and the first results of this work treating the period 1953-61 were published in 1963.

TABLE 1
MAIN CHARACTERISTICS OF THE BELGIAN REGIONAL ACCOUNTING EXPERIENCES

References	Regions under Investigation	Covered Period	Estimated Approaches and Accounts ¹	Observations
DULBEA-FUNDP GREA-SEPUEL (COREG) ² (1990)	Wallonia	1973-1989	P-I-E 5 accounts	Political argument for regionalisation of public debt charges Inter-regional balance obtained as a difference between the alternative approaches Coherency of the framework Conformity with national accounts.
National Institute of Statistics (NIS) (1966-87)	3 regions	1961 1955-1984	I P	Punctual work and incoherence of concepts, GDP calculated according to the domestic concept.
Kervyn-Weiserbs (1980)	3 regions	1974	G-H-B	Territorial concept for G and H, domestic concept for B, no regional balance of payments.
Economic Affairs Ministry (EAM) (1973)	3 regions	1965-1972	5 accounts	Alternative use of domestic and territorial concepts resulting in methodological incoherences.
Van Rompuy- Verheirstraeten (1979, 1980) -Clemer (1982)	3 regions	1970-1974 1982 1975-1978	Budgetary balance and individual saving G and net saving	Domestic concept, global approach oriented towards the measure of balances. Compatibility with Kervyn's approach time-invariance of regional shares.

¹P, I, E = respectively, production, income and expenditure approaches

G, H, B = respectively, accounts for general government, households and enterprises

5 accounts = income and expenditure, government, households, external transactions and capital accumulation

²COREG is a synthetical name for "comptabilité régionale."

II.2.1. The Belgian Experience

The work done in Belgium in this area is relatively limited. In Table I we give a synoptic view of the more prominent experiences discussed below. As has already been mentioned, the only official figures present a sectorial distribution (21 sectors) of production activity. In 1966, the N.I.S. undertook to regionalise national income for 1961, but this attempt has never showed any result. Other research done in the area of regional accounting has in most cases been done as a result of regional political problems and not to meet the evolving needs of the process of planning. The research is characterized by the diversity of methods used and the wide range of phenomena examined. Aside from the studies done by the N.I.S., the others (DULBEA *et al.*, 1990; Kervyn de Lettenhove, Weiserbs *et al.*, 1980; Ministère des Affaires Economiques, 1973) are more extensive and tried to organize a regional distribution of the accounts of the major economic agents: government, enterprises, households, the rest of the world, as well as the capital accumulation account. In Table 1 the characteristics of these studies are summarized. The most complete work is certainly that done by the Economic Affairs Ministry (E.A.M.) as it covers the three regions and presents a calculation of all the accounts. The work suffers, however, from a certain amount of methodological incoherence which compromises the results considerably. For example, public expenditures are broken down by region on the basis of two alternative criteria: either at the work-place or at the place of residence. Another important problem is that public debt interest charges are imposed on the regions that finance the deficit, rather than on those that benefit from public indebtedness. This interest would be more fairly imposed in function of the regional distribution of past expenses financed by these loans.

The second group of studies, (Kervyn de Lettenhove, Weiserbs *et al.*, 1980; Van Rompuy and Verheirstraeten, 1979, 1980) provide comparable results, but the authors insist on the precariousness of their results, noting that some of their deductions will be arbitrary in their economic significance. The case of public debt interest payments is cited as an example. Thus, according to the two criteria for allocating interest payments: through public stockholders or costs engendered by past public investment, the results can lead to a conclusion of either a need or a capacity for financing a region. In general, the regionalisation of state accounts represents an exercise in delicacy in countries where regional tensions run particularly high since results can lead, despite the prudent counsel of the writers, to exploitation and politically abusive interpretations. It is very dangerous to look at direct effects without considering indirect effects. The first are restricted to the accounting framework while the second require a modeling approach. As Kervyn *et al.* has stressed, "One must beware of inferring from a regional breakdown of state accounts, an estimation of the resources and employment of each region under the hypothesis of regional autonomy. In effect, the regional allocation of national flows leads to attributing to each region receipts and expenses which even in a federal structure, would escape it or not be in its scope . . . Besides, breaking down public investments and subsidies leads to imposing on a region expenses of which it is, in fact, not the beneficiary" (Kervyn de Lettenhove, Weiserbs *et al.*, 1980, No. 58, p. 4).

Unfortunately, these studies are static, furnishing only a photograph of the regions at a certain given period. Although the E.A.M. study treats the period 1965-72, the fundamental difference in character of methodological procedure used in the so-called COREG study for the period 1973-86 rules out using the two studies in any joint manner. Before discrediting the options chosen in the course of the recent study, it is worthwhile briefly noting a few examples of empirical work done in other countries. In this way, the degree of imprecision of methods and concepts in use today will be clearly in evidence.

II.2.2. The Experiences of Other Countries

In the following, we shall limit ourselves to a discussion of three problems whose treatment can differ considerably depending on the country, they are: how to apply the notion of extra-territoriality, how to regionalise the State account, and finally how can inter-regional flows be determined.

(a) *Extra-territoriality*. Allocating to regions the added value of some national level activities can only be accomplished by means of hypotheses which are, at times, uncertain. Indeed, national level activities have the particularity of being specific to the national dimension (e.g. the indivisible character of some public goods and services) or localised with difficulty (e.g. transport and communication). As a result, defining a regional concept which is not equivalent to a national concept but to a domestic one proves to be quite difficult. This leads to classifying the activities which cannot (directly or indirectly) be allocated to a specific geographic territory in a "non-territorial region". Although the extra-regio section (e.g. in the constitution of EAS-reg) had better be reduced to a minimum, this method is resorted to in some cases: for example, Sourrouille (1976) who advocates assembling central government activities, and note the case of Finland (Hjerpe, Niitamo and Suur-Kujala, 1987) which applies it to some transport and public services. Nevertheless, a majority of countries (among them Belgium) within the framework of the COREG study do not apply this concept in their regional allocation of public activities.

(b) *Government activities*. Two criteria dominate the regionalisation of public expenses and receipts: the criterion of localisation and the criterion of incidence. As concerns public receipts, the criteria of localisation consists in a taxation based on the place of collection and as for expenses, the criterion is based on effective localisation. On the other hand, the criterion of incidence rests on a distribution based on the effective incidence of the tax for the receipts and the residence of the beneficiaries for expenses. The second criterion seems to be the most unanimously accepted, which does not mean, however, that it is the object of uniform interpretation.

For indirect taxes and direct taxes on individuals, the source of the imposable act (the tax-payers and the consumers) represents the most widely applied rule. Regarding corporate tax, diverse hypotheses have been envisioned: Italy and the United Kingdom envisaged that only the shareholders should bear the expense; for Finland it is the consumers; studies carried out in France, the United States and Germany accept the validity of both categories of agents. Australia and Belgium impose the charges on enterprises.⁵ If we admit that the effective place

⁵See McDougall *et al.* (1987), Eurostat (1984), Hjerpe Niitamo and Suur-Kujala (1987), Walters (1987).

of incidence is found at the source of the imposable act, the latter solution appears to be the most realistic one (it being understood that it is based on operating area and not on the location of the head office. A similar situation is provided for regarding contributions to the social security system. Who actually assumes the expense: the worker, the company, or the consumer? The solution chosen in Belgium is to have the worker bear the total cost of the contributions. On the other hand, in Italy, the charges are imposed on the enterprise, while research done in the U.S. and Canada considers them either partially or totally charges to the consumer.

In reality, the shares pertaining to the worker and employer are directly deposited by the employer, which could lead to applying the place of business activity as a general rule of distribution of the charges. However in this sort of case, the calculation of contributions being tied to salaries, the true source of the imposable act is the worker and it is only to facilitate the administrative process of collection that the workers play the role of an intermediary. As a consequence, the most logically consistent solution is to impose the amounts in function of the worker's place of residence.

In regard to expenses, similar problems arise according to the definition given to the notion of beneficiary: is it the user of the public property, the region in which the property is found or the economic agent who receives the payment? Here is juxtaposed, as noted above, the problem of the indivisibility of some public goods and services, which renders arbitrary all attempts at regionalisation of these aggregates. In Italy the criterion used is determined in function of the nature of the expense: so for general and indivisible services, the values are distributed on the basis of population; when services are easily identifiable it is the users; for exclusively economic services, it is the added value and finally for the reallocation operations, it is the beneficiary's residence. As mentioned earlier, the principle of extra-regio is applied in Finland for some categories of expenses. The expenses of consumption and investment are distributed according to the criteria of localisation (the place of activity) whereas the transfers are regionalised in function of the place of effective incidence. The same criterion prevails in numerous other studies. When the territory of the regions is vast, the distinction between place of residence and place of work can be neglected to a large extent. On the other hand, when the territories are exiguous, as is the case in Belgium, the distinction is essential due to the considerable amount of commuting done by workers between regions. In the same way, the criterion making use of the civil servants' places of residence is used to regionalise remuneration of the public sector between regions.

(c) *Inter-regional flows.* The most complex problem involved in the make-up of a regional accounting system is the evaluation of interregional flows. Diverse methods have been devised, such as specific investigations of businesses, sales statistics of enterprises by destination, transport statistics or methods based on the distribution system network. Courbis (1975) draws up a synthesis of research done in this area in France. An alternative course of action consists in basing the system upon multi-regional input-output tables. A critical analysis of empirical studies in this area for diverse countries of the EEC (notably for Belgium) was done by Courbis (Eurostat, 1984). Although these methods permit us to capture

the flow of goods and services, the problem of determining the amplitude of these factor income flows and the current transfers remains. For the labour factor an estimation can perhaps be obtained through a comparison of the population statistics according to the double distinction: work-place and place of residence. The public transfers can be approximated through use of the government accounts. Flows of capital revenue and private transfers, however, escape to a large extent all attempts at quantification. The reconstitution of inter-regional flows is necessarily more difficult to perform than attempting to determine the balance. The latter is obtained in residual form through a comparison of the different approaches. This is possible only when the value of regional trade with other countries is available. In the same way, it is clear that errors resulting from techniques used to estimate aggregates will particularly affect this balance.

II.2.3. The Walloon Regional Accounting System

It is beyond the scope of this paper to detail the methodology developed within the context of implementing the regional accounting system of Wallonia. Besides, such a description would involve repeating widely accepted concepts such as: the location of production at the operating area (where value added is actually generated), the distribution of income at the place of residence (the domicile of recipients is the relevant statistical criterion), or the determination of the gross regional product through a territorial approach (which implies taking into account all the activities of resident units of the concerned region). Hence, we shall limit ourselves to defining the main ideas and the optional logical methods which diverge from generally adopted solutions. We shall in turn address:

- (a) the problem of defining the Regional State which constitutes a prerequisite in a regional accounting system,
- (b) the attribution of public debt interest, the treatment of which is often avoided through recourse to accounting tricks,
- (c) the inter-regional balances whose measurement is an extremely delicate operation,
- (d) and finally, the coherency of the framework on which the reliability of the accounts largely rests.

(a) *The concept of a regional state.* As mentioned earlier, it is very difficult to determine regional responsibilities concerning central administration operations. To overcome this problem and before any attempts at devising a regional accounting system, it appears fundamental to define accurately the responsibilities and attributes that the Regional State, for which an accounting of activities is attempted, is said to have. Therefore, the COREG research for Belgium is based on a definition of the Regional State of Wallonia designed to provide a coherent frame of reference and aggregate comparable in the future.⁶ This State is defined

⁶Work undertaken in 1983 at the initiative of the Walloon Region Ministry to devise a regional accounting system for Wallonia and conferred to an inter-university team composed of: the Department of Applied Economics of the University of Brussels (DULBEA) for the production approach, the Applied Economics Group of the State University in Mons (GREA) for the income approach, the Faculty of Economic and Social Sciences of the Notre Dame de la Paix University of Namur (FUNDP) for the expenditure approach and to the Public Economics Service of the State University of Liège (SEPUEL) for the presentation of the accounts. This work is commonly called COREG (comptabilité régionale).

as the sum of the two following elements:

- all flows constituting the receipts of the National State and coming from Wallonia are accounted for as receipts of the Regional State, the amounts assigned to the communities and regions as well as their own resources being directly listed,
- all flows constituting an expense of the National State and benefiting Wallonia are seen as expenses of the Regional State.

Therefore, the Walloon Regional State is defined as the group of National State activities regarded as resulting from Wallonia. All expenses and receipts of the National State must necessarily be the object of a regional distribution. In spite of this definition of the Regional State of Wallonia, methodological choices had to be made. For the above mentioned reasons to avert the dangers inherent in applying purely economic reasoning in a country where the process of regionalisation has become one of the essential components of political debate, it is important to underline that the exacerbation of regional peculiarities necessitated studying with care the ins and outs of the diverse methodological options.

(b) *The public debt interest.* The second aspect of the Regional State that has to be defined accurately concerns the public debt interest. Public debt interest represents a sizeable figure within the Belgian national accounting system. It should be recalled that the percentage of this interest in the GNP exceeded 3.3 percent in 1973 and some 11 percent in 1986 and its percentage within the operating accounts of the state has increased considerably, passing during the same period from 10 percent to 25 percent. Note that from the outset, a large portion of this amount cannot be directly regionalised.

The extensiveness of this interest necessitates being particularly attentive to the implications of the methodological choices made. The “stockholder” approach is unfavorable to the regions that finance the public deficit whereas the “beneficiary” approach forces a region to take on debt charges incurred within the framework of a national development policy.^{7,8}

The allocation system finally chosen represents an intermediary solution and is inspired by that adopted and used until very recently by the political powers for the distribution of regional and community funds. According to the terms of the law, the system of fund allocation meets both the criteria of solidarity and fair return since it is based on three variables: the population, the area and the personal income tax yield, each of these variables counting for a third. Within the framework of the COREG study this system was adopted by substituting taxable revenue (the most rapidly accessible figures) for the third variable and by integrating added value as a supplementary variable. The formula chosen, known as the system of four-quarters, allowed us to take into account the two solidarity variables and the two fair return variables.

Through such a procedure, we answer to some degree the question “What would the Walloon regional debt be if Wallonia were to constitute an autonomous state?” How pertinent this question is, is shown in the decentralisation process

⁷Logically the “stockholder” approach is applied at the revenue level while the “beneficiary” approach is the only compatible one for the presentation of the current operating account of the state.

⁸Materially, the spill-over effect of an excessive number of measures in favour of a region are considerable given the deep interpenetration of regional economies.

of Belgian institutions. As opposed to the "beneficiary" approach, which requires retrospective economic research, this choice is like an exercise in prospective policy and has the advantage of taking into account the functions traditionally attributed to budgetary policy, albeit in an imperfect fashion.⁹ The effect of this option on the results of the accounting is considerable (for an idea of the impact, let's note that the use of alternative systems leads to regional shares being doubled), the greatest impact is seen at the level of regional state savings and inter-regional flows.

(c) *The inter-regional balances.* The weakness of regional statistical tools regarding this particular point first led to dismissing all attempts at direct estimation of inter-regional trade. As a consequence, the only practical approach consisted in determining the balance based on the result of the three approaches. At the first stage, the comparison of the income and expenditure approaches permits us to obtain the relative balance of the group of inter-regional flows. The break-down of this amount into the balance of goods and services trade with the rest of Belgium and the balance of factor income paid to the rest of Belgium is obtained at a second stage by calculating the difference between the income and production approaches.

On the basis of these three approaches, the balances and the current transfers, it is then possible to proceed to the presentation of the five regional accounts. The choice of such a procedure is not beyond criticism. Two of the accounts must in fact be estimated. In effect, the method implies on the one hand, equality between the gross regional products at market prices calculated according to the three approaches and as the national aggregates include a statistical adjustment, the latter is found as well at the level of regional values, a problem we shall come back to shortly. Nevertheless, this implies that the balances must be interpreted cautiously. This caution is called for in a more general fashion as well regarding the interpretation of the entire balance wherein are found all the errors and biases of estimation inherent in this type of exercise, even though these errors might compensate for each other. To mitigate these drawbacks, independent methods of estimation of these balances have been applied through, on the one hand, input-output analysis as far as goods and services are concerned and, on the other hand, a measure of the labour factor revenue resulting from commuting.¹⁰

(d) *The coherency of the framework.* In the national accounting system, the calculation of the GNP from calculations independent of production, income and expenditure requires performing a statistical adjustment in order to balance these diverse approaches. This national adjustment has been regionalised, so there are no global repercussions on inter-regional flows. This allows all comparisons between national and regional aggregates. The problem of statistical discrepancies is very important because experience has shown that if the values are found to be little affected, serious divergences are found when working in

⁹Retrospective economic policy is insufficient alone to assess a regional litigation since it should account for the indirect benefits derived by the other regions. Under this circumstance, the alternative question could be: "What advantages (direct or indirect) could the Walloon regional state derive from debt contracted by the national state and how do they compare with those accruing to the other regions?"

¹⁰With the drawback that this information is only available for certain years.

growth rate terms. The official methodology which consists in distributing the adjustment throughout specific aggregates has been found to be arbitrary. In order to obtain internal consistency this adjustment has been neutralised by isolating it in a separate aggregate. Through this alternative method, the adjustment of each of the approaches is regionalised proportionally through the average value of the approaches before determining the balances of the inter-regional flows. The advantage of this method is that comparability of the results without alteration of aggregates is preserved.

III. CONCLUSION

Although the conception of a regional accounting system has been the object of numerous studies for the past thirty years, no normalized system can truly be said to exist. However, several arguments speak strongly in favour of a harmonisation of conceptual framework, namely:

- the increase in international comparisons of regional specificities for a better perception of regional disparities;
- the desire to take into account these specificities in the elaboration of international policies of development, a primordial aspect of the European industrial policy, whose urgency will show itself particularly sharply when the single European market is achieved.¹¹
- the increasing autonomy of regional authorities with a view to promoting an endogenous development of regions calls for the availability of a coherent statistical support.
- the necessity of implementing coherent macromodels, as they are the only method of capturing the phenomenon of regional interdependencies in all their complexity.

The accounting research done and the regional models developed in Belgium constitute an effort to construct a coherent framework of regional analysis. However, overcoming the conceptual and methodological fuzziness which characterizes an important part of regional information will undoubtedly require still more research.

REFERENCES

- Clemer, G., *De regionale financieringstromen: een actualisatie 1975-1981*, U.E.V., Bruxelles, 1982.
- Courbis, R., *La comptabilité régionale française*, *Economie Appliquée*, XXVIII, (2-3), 279-330, 1975.
- DULBEA, FUNDP, GREa and SEPUEL, *Etablissements des comptes régionaux de la Wallonie pour la période 1973-1989*, rapport de recherche inter-universitaire, Ministère de la Région Wallonne pour l'Economie et l'Emploi, 1990.
- Eurostat, *Situation et perspective de la comptabilité régionale dans la Communauté*, E.E.C., Luxembourg, 1984.
- Eurostat, *Programme statique des Communautés Européennes, 1989-1992*, E.E.C., 1988.
- Institut National de Statistique, *Répartition régionale du revenu national en 1961*, *Etudes Statistiques et Econométriques*, 14, 1966.
- Institut National de Statistique, *Croissance économique des provinces et régions de 1975 à 1984. Valeur ajoutée et produit global par branche d'activité et région géographique*, *Etudes Statistiques*, 79, 1987.

¹¹E.g. in the income account the statistical discrepancy is distributed between investment and private consumption items.

- Hjerpe, R. T., Niitamo, O. E., and Suur-Kujala, Regional Policy-Making and Regional Data Bases in Finland: National Experience, *The Review of Income and Wealth*, 33 (4), 387-400, 1987.
- Kervyn de Lettenhove, A., Weiserbs, D. et al., Essai de répartition régionale des compte se l'Etat, des particuliers et des entreprises, *Bulletin de l'I.R.E.S.*, 58, 59, 60, 1980.
- Marée, M., La capacité financière de l'économie wallone: l'approche de la comptabilité régionale, Commission de base, *4ème Congrès des Economistes Belges de Langue Française*, 57-107, 1980.
- McDougall, D. et al., Rapport du groupe de réflexion sur le rôle des finances publiques dans l'intégration européenne, Vol. II, Commission de la C.E.E., Bruxelles, 1987.
- Ministere des Affaires Economiques et de L'energie, Essai de régionalisation du budget économique de 1974, Bruxelles, 1973.
- Moutot-Menente, M. J. and Pucch, D., Les comptabilités économiques régionales et la connaissance des régions, *Revue d'Economie Régionale et Urbaine*, 2, 308-314, 1985.
- Sourrouille, J. V., Regional Accounts: Theoretical and Practical Problems Encountered in the Recent Experience of Argentina, *The Review of Income and Wealth*, 22 (1), 13-36, 1976.
- Van Rompuy, P. and Verheirstraeten, A., Regionale herverdelings- en financieringsstromen, *Leuvense Economische Standpunten*, 14, 1979.
- Van Rompuy, P. and Verheirstraeten, A., De regionalisering van de overheidsontvangsten en uitgaven en de interregionale financiële stromen-1975/1978, C.E.S., Leuven, 1980.
- Walters, R., A Framework for Regional Accounts: An Australian Perspective, *The Review of Income and Wealth*, 33 (4), 401-416, 1987.