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Bouma, J.L.; Feenstra, D.W.; Huijgen, C.A.

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# Accounting and Business Economics Traditions in the Netherlands

*J.L. Bouma, D.W. Feenstra, C.A. Huijgen*  
*University of Groningen, Faculty of Economics, the Netherlands.*

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## **Abstract**

Until the 1970's Dutch accounting theorists generally showed a strong inclination towards the formulation of deductive theories. A set of different disciplines, all related to the problems of the business firm, made up a whole called "bedrijfseconomie" (business economics). The theory of value, which was tantamount to the theory of replacement value, was without doubt the core of "bedrijfseconomie". This paper elaborates on the changes in contents and consequences of this theory of replacement value during the second part of this century. Since the seventies the construct of "bedrijfseconomie" has fallen apart. Each discipline formerly belonging to it, has independently found its tie-up with the respective international scientific developments. "Bedrijfseconomie" has lost its significance as a comprehensive academic discipline. Nowadays business economics has an important orientation towards US-literature. As an example of this trend we give a summary of Huijgen's research who applied the Feltham-Ohlson framework on the accounting issue of goodwill.

## 1. Introduction

In 1973 Nelson (p. 4) characterised US accounting research during the decade of the 1960's as "a golden age in the history of a priori research in accounting". Nelson's qualification describes the situation in the Netherlands adequately; not only for the 1960's but also for the period of the 1970's. During those years Dutch accounting theorists and researchers generally showed a strong inclination towards the formulation of deductive theories. Only since the 1980's has empirical research in accounting gradually gained a position comparable to the one in the Anglo-Saxon accounting literature. In addition to accounting theory and research, attention to practical accounting problems has always been paramount in the Netherlands; the impact of theory and research on solving practical problems has varied through time.

It is impossible to present a complete picture of the links between accounting theory and research, business economics (i.e. the studying of problems regarding organisations from an economic point of view), and accounting practice. It is not even possible to give a "true and fair view" of the complicated and unstable relations in the Netherlands between these different fields within the frame of a few thousand words. A few years ago Zeff et al. (1992) published a voluminous book of over 400 pages about a fraction of this subject.

Staubus (1996) needed a monograph for a rather soft and general description of the reciprocal influences of economic features of the firm in the development of accounting. In total he suggested 72 propositions as descriptions of mutual connections between a feature of the firm and an accounting development. To a large extent these propositions are based on underlying concepts and phenomena such as bounded rationality, opportunistic behavior, information losses, cost of information, asset specificity, performance evaluation and incentive plans, conflicts of interest, size of the firm, and form of organization. Staubus' description can be seen as a research proposal for the next decade for a group of researchers.

Given our limited frame we have decided not to use more or less rigorous theories like information-economics or innovation-diffusion theory (Camfferman, 1996; Rogers, 1983).

Thus this article presents an impressionistic sketch of what has been going on in the field of accounting in the Netherlands during the twentieth century. It does not deal too much with detailed technical accounting problems, but sticks to headlines which emerge from the details. The same goes for the references to the history of financial reporting in the Netherlands, a choice which is justifiable, given the Zeff et al. monograph and the published extensive reviews of this impressive book (several authors, 1993, *The European Accounting Review*). Nor do we want to present rather factual descriptions of typical Dutch institutional arrangements, like the university system and in particular the educational system as far as accounting is concerned. Descriptions of names of professors who held chairs in business economics and accounting at various universities during successive periods will not be given in this article. Excellent detailed information about these topics can be found in Klaassen and Schreuder (1984: 114-16). A general characteristic of this paper is that we will demonstrate a bias towards the field of financial accounting, a stand which can be explained by the highly subordinated position in the Netherlands of management accounting compared to financial accounting until the middle of the 1980's (Bouma, 1992).

Before giving an introduction to the themes dealt with, it seems useful to give an explanation of the meaning of business economics, an expression which is very common in Dutch accounting theory and practice. Business economics ("bedrijfseconomie") encompasses a bundle of fields in which problems relevant to organisations are formulated within an economic perspective. In the early days the (neoclassical) economic perspective was defined in terms of a priori economic axioms, such as profit maximizing behaviour, striving for efficiency and continuity, and omniscient rationality. The following areas of inquiry collectively constitute the field of business economics in its traditional sense: valuation for profit determination and capital measurement, costing for management control, product pricing, corporate finance, marketing, and organisation theory. Thus accounting has been considered to be a part of business economics. More recently the axioms and areas of inquiry have been adjusted to developments in the international literature (Bouma, 1966; Bouma and Van Helden, 1994). As a consequence "bedrijfseconomie" in its traditional sense

has fallen apart; modern "bedrijfseconomie" and accounting are no longer strongly connected. We will elaborate on this theme in sections 2 and 3.

Section 2 provides an outline of the interdependencies between accounting and business economics in the Netherlands. It reveals that conceptual aspects of accounting generally have been emphasized, using concepts derived from business economics. Given the permissive character of accounting and reporting regulations in the Netherlands, accounting theory and practice seldom have been developed in isolation from each other. Several possible explanations will be given for the mutual relations between theory, research, and practice.

Section 3 describes headlines of Limperg's theory of replacement value accounting; since the 1920's this theory forms the hard core of Dutch business economics. It mentions some amendments of this theory and gives information about the relevant legal requirements. It also informs the reader to what extent the theory has been applied in practice by large and small companies in the Netherlands. In the introductory part of this section we will explain the subordinated position of management accounting compared to financial accounting until the middle of the 1980's. In the latter part of this section we wonder why the Dutch accounting literature on replacement value accounting demonstrated such a parochial character.

In section 4 we have selected a representative example of modern Dutch financial accounting research. We call this example modern because it is founded on a recent financial economics based valuation model, i.e. the Feltham-Ohlson framework.

Section 5 concludes this article.

## **2. Accounting and business economics: general characteristics of the relationships in the Netherlands**

The Dutch "bedrijfseconomie" as an educational programme, originated in the

beginning of the twentieth century. According to the design of the distinguished founding father, Theodore Limperg (1879-1961), it has been developed as a set of different disciplines all related to the problems of the business firm, namely:

- the theory of value, which was tantamount to the theory of the replacement value; this part of "Bedrijfseconomie" will be dealt with extensively in section 3;
- the theory of product costing that amounted to a normative exposition of procedures based on a rather dogmatic concept of causal relations between outputs and inputs; this theory implied ideas common to those inherent to the activity based costing, and as such its sophistication surpassed that of the contemporary cost accounting theory in the anglo-american countries for many decades; the product costing system was in Limperg's opinion the main source of management information for decisions on production, marketing and capital budgeting;
- the theory of capital and income measurement, which corresponds to the theory of financial accounting;
- the theory of finance, that was mainly concentrated on the problem of financial funding; problems of capital budgetting and management of working capital were dealt with only superficially;
- the theory of industrial organisation ('external organisation'), which included the essentials of the theory of the firm, and many other internationally accepted ideas;
- the theory of organisation and management, mainly based on international literature;
- the theory of labor and industrial relations; the influence of this discipline has not been extensive and long lasting;
- the theory of auditing; these ideas are up till now still very influential in the Dutch auditing practice.

The "bedrijfseconomie", and with it the accounting, got its academic status around the year 1920. In Rotterdam a Graduate School of Economics and Accounting (the "Nederlandsche Economische Hoogeschool", later expanded and renamed as Erasmus University) was founded in 1913. The University of Amsterdam broadened its scope by means of a Department of Economics and Accounting in 1922. The Amsterdam

Faculty was rather dogmatic and accounting/auditing dominated. In Rotterdam a more free-thinking and commercial atmosphere prevailed.

The various disciplines composing the "bedrijfseconomie" have hardly been integrated by means of a central theory or meta theory. The fundamental explanatory factor in all these disciplines was, what Limperg called, the economic motive. The economic motive has been defined as "a general force induced by the psychical and physical urge for need satisfaction, controlling the human pursuit of welfare and the individual aim of reducing the shortage of welfare" (Groeneveld et al. (1965) part I, p. 31; translation JLB/DWF). With regard to the firm ("bedrijfshuishouding") the economic motive results in the so-called "law of continuity". In this connection a firm in the "bedrijfseconomie" is defined as an independent production organisation striving for its own continuity. According to the "law of continuity" the firm has to replace the asset after it has been sold or lost in any other way. Voluntarily selling an asset implies that the revenue obtained will at least exceed the replacement cost of that asset. The "law of continuity" includes the drive to efficiency. The minimalization of costs has been considered to be a more realistic and measurable goal of the firm than the maximalisation of profit or maximalisation of the ROI. From a viewpoint of scientific methodology Limperg's "bedrijfseconomie" reveals some traits borrowed from the Austrian School and the Neo Classical School. It cannot be denied that there are remarkable similarities between the Dutch "bedrijfseconomie" and the German "Betriebswirtschaftslehre", as this has been developed by Fritz Schmidt and Eugen Schmalenbach. Differences with others' ideas, however, have been exaggerated by the Dutch to show up one's own originality.

The "borders" between the different disciplines of the "bedrijfseconomie" remained rather closed. There have been no evident examples of interdisciplinary analysis. There have, for instance, been no conceptual links between the theoretical concept of the cost of capital and the theory of (product) costing.

Besides the "bedrijfseconomie" according to the design of Limperg, several other academic efforts were made in the Netherlands to intellectually support business administration with theoretical constructs and methods. These efforts were also lacking

coherence via a central theory or paradigm. Academic performances like these were regarded as manifestations of art rather than of science.

The links between accounting, business economics and business practice in the Netherlands have not been invariable through time. Before the Act of 1970 on Annual Financial Statements of Enterprises, there was no doubt that accounting theory belonged to the hard core of business economics. Given the normative theory development in those days, accounting theory and business economics tried to influence practice, in which they succeeded to a certain degree. After 1970 the prominent position of accounting theory gradually diminished due to rather juridical discussions related to the implementation of a series of changes in the legislation on the form and contents of published financial statements (the incorporation of the Act on Annual Financial Statements in the Civil Code in 1976; the amendments of the Civil Code by the Acts of 1983 and 1988, which introduced into Dutch law the provisions of the EC fourth and seventh Directives). It is only since the second half of the 1980's that accounting theory is trying to regain its assailed position.

Changes in legislation were not the only factors influencing the links between accounting theory, business economics and practice. Other important influences can be attributed to:

- the audit-monopoly given to Registered Accountants (i.e. auditors) by the Registered Accountants Act of 1962;
- the guidelines and positive pronouncements published by the Council for Annual Reporting since 1972;
- the rulings of the Enterprise Chamber since 1977;
- and the publication of accounting standards by the International Accounting Standards Committee (IASC) since the 1970's.

Tax law, the Amsterdam Stock Exchange and pressure groups have been of minor importance. For detailed descriptions and analyses of the historical developments concerning the regulation of financial reporting in the Netherlands, see Zeff et al. (1992) and Zeff (1993). The European Accounting Review recently published extensive book reviews (Klaassen, 1993; Hoogendoorn, 1993), making it superfluous



to repeat the contents of Company Financial Reporting. Besides, there are a lot of other papers, articles, booklets and books about the institutional framework of annual reporting in the Netherlands (e.g. Choi and Mueller, 1992, chapter 3; Nobes and Parker, 1995, chapter 10; Radebaugh and Gray, 1993, chapter 5; Schoonderbeek, 1985; Klaassen, 1991). From this array of publications the following general pattern emerges:

- through time there has been a strong general emphasis on the conceptual aspects of the discipline of accounting, and especially on accounting measurement problems (discussed further in section 3);
- accounting research generally has not been practised in isolation as a result of fairly close relationships between leading Dutch audit firms and Dutch universities (it is common practice that influential partners of audit firms hold part-time academic chairs); as a consequence critical accounting and interpretative accounting (Chua, 1996) called forth almost no response;
- the statutory accounting and financial reporting prescriptions are relatively permissive and have been easily adapted several times to international developments (fourth Directive, IASC), a process in which the Dutch audit profession exercised an important influence. Mandatory or recommended charts of accounts do not fit well in the Dutch accounting culture. Substance over form has always been a characteristic of the Dutch position. Consensus and compromise have always been important in the Netherlands, resulting in a complicated rule making process;
- management accounting generally has been dominated by financial accounting until the 1970's, due to the prevalent normative intention of the latter (e.g. marginalistic thinking in management accounting was execrated, and direct costing was denounced, Limperg, (1950)). Financial accounting theorists, seeking for "absolute truth" in financial accounting, left no room for the idea of "conditional truth" propagated by management accounting theorists. Thus management accounting theorists took refuge to other fields, such as data transmission and information technology, operations research, organisation theory, decision making, marketing, and even cognitive psychology (Bouma, 1992). We will elaborate on this theme in the Introduction of section 3.

Klaassen and Schreuder (1984) suggested several determinants for the characteristic way Dutch accounting research has been practised. To us these suggestions not only seem plausible and of actual significance in understanding the way research has been practised, but they also offer an opportunity for understanding complex links between research, theory and practice. Among others the authors suggest the following five determinants: lack of a formal institutional framework for financial reporting, importance of the business economics approach to accounting problems, leading role of multinationals, special characteristics of socio-economic environment in the Netherlands, and characteristics of accounting researchers.

The first determinant has been dealt with extensively in Zeff et al. (1992). We think this factor improves our understanding of the highly diversified financial reporting practice in the Netherlands. Another factor possibly explaining this high degree of diversification, is the aversion of the Dutch against detailed regulations which would leave little room for sound judgement on the basis of financial statements.

The Dutch emphasis on current value accounting, as the best example of the second determinant, will be discussed further in the next section. We fully agree with Klaassen and Schreuder (1984) in qualifying the Dutch focus on valuation in financial accounting; thus other important issues did not attract proportional attention (1984: 126). According to Klaassen en Schreuder topics like allocation and disclosure in financial accounting and control issues in management accounting, have been underemphasized in the past.

Dutch multinational corporations have been considerably influenced in their financial reporting practices by international practices and regulations, especially by those of the UK and the US. For the smaller Dutch companies these multinationals certainly set an array of examples of good financial reporting.

The Dutch seldom investigated the usefulness of accounting data for investment decisions. Of course, there are a few exceptions to the foregoing statement (e.g. Klaassen and Schreuder, 1980; Vergoossen, 1992), but in general it can be said that Dutch accounting researchers often have shown a preference for axiomatic reasoning, though the situation is gradually changing towards a more empirical attitude. Nevertheless, laboratory studies still are extremely scarce (e.g. Feenstra, 1985; Van de

Poel, 1986), and have been clearly outnumbered by empirical studies of an inductive mode (e.g. Dijkma, 1986 - 1990). Klaassen and Schreuder suggested several explanations for this Dutch approach in selecting research themes and methods: a) there are a relatively small number of listed companies producing financial reports which are difficult to compare because of the lack of strict rules; b) researchers have always been reluctant in regarding general purpose financial reports for just one group, i.e. the shareholders (in their view these reports have to serve a wider public); c) in the education of accountants the empirical orientation in accounting research was of minor importance. Valuation theory and several technical financial reporting issues thus dominated theory and research, thereby almost expelling testing of hypotheses on the basis of large quantities of empirical data obtained from e.g. the stock exchange.

The situation regarding accounting research preferences certainly has changed in the last decade. In economic theory financial and management accounting are now conceptualized as important institutions or conventions serving communication about attributes of the firm and its participants. Like any institution or convention, accounting interacts with other factors in the economic and social processes (Staubus, 1996). Economists do not pay much attention to the design and consistency of accounting systems. Rather they are interested in the economic consequences of alternative accounting systems. Economic theory of accounting, expressed e.g. in market-based accounting research, has obtained a teleological character. In the Netherlands solving the problems of design and adaptation of financial accounting systems, integrated in financial reporting systems, has become a "prerogative" of the audit and law professions, rather than accounting academics.

Since 1985 several young Dutch Phd-researchers in accounting have demonstrated the willingness and the capability of joining the international accounting research community. Theory has maintained its central position in the research process. But these theories are more strongly linked to internationally used concepts as in the early days (Staubus, 1996). Since 1985 almost every Phd-researcher uses the concepts and theories such as adverse selection, moral hazard, signalling, agency relationships and contracting, transaction costs, public and private interest theories, and so on (e.g. Van

de Poel, 1986; Groot, 1988; Maijor, 1991; Buijink, 1992; Bollen, 1996; Camfferman, 1996; Mertens, 1997). Huijgen (1996) applied the Feltman-Ohlson accounting-based valuation model (1995) to the problem of economic and accounting valuation of purchased goodwill. As a consequence practitioners sometimes complain about the widening of the gap between theory (and research) on the one hand, and practice on the other hand (Bindenga, 1993). Recently Biggs et al. (1994) demonstrated convincingly that this complaint cannot reasonably be put forward against audit theory (and research). We are convinced that modern Dutch accounting theory (and research) may have important implications for financial reporting practice (e.g. Maijor, 1991; Van der Meer-Kooistra, 1993; Camfferman, 1996; Huijgen 1996). In the section 4 of this article we will elaborate on this conviction by referring to an example of modern accounting research. The so called gap between theory and practice seems to be an information gap in the first place.

### **3. Replacement Value Accounting in the Netherlands**

#### *Introduction*

Before about 1960 the theories of value, product costing and financial accounting were treated as the most important disciplines of the "bedrijfseconomie". In the remaining disciplines no significant progress or original contributions by "bedrijfs"-economists might be observed. In Limperg's view the theory of value dominated the theory of costing and financial accounting. This implies that the theory of product costing could only come to the conclusion that the relevant cost of a product is its total (fixed plus variable) replacement cost. Only in case the continuity of the firm (or a part of the firm) is violated, other concepts of cost might become of interest for the decision maker. Limperg and his adherents have been very intolerant of dissenters. Therefore it is obvious that management accounting in the Netherlands was not able to be developed in a harmonious and consistent way during many decades. Many potential management accounting theorists and researchers looked for an academic shelter with economists, management information scientists, operation researchers, social psychologists and organisation theorists. The theory of costing in the

"bedrijfseconomie" could under this intellectual regime never develop to a balanced specimen of management accounting. Nowadays, however, management accounting in the Netherlands has a place of its own in the academic curricula and has its own research programmes.

### **RVA**

Limperg's normative theory of replacement value accounting (RVA) certainly is the hard core of his interpretation of business economics; in essence it is a theory of mixed values which can be summarized using three value concepts (Groeneveld et al., 1965)<sup>1,2</sup>. Two of these concepts are exit value concepts (PV = present value of expected net receipts from an asset; NRV = net realizable value of an asset)<sup>3</sup>. The other concept is an entry value concept (RC = replacement cost of an asset). Which one of these three concepts should be regarded as relevant to a decision maker in specific circumstances, depends on which one of two alternative courses of action is economically preferable to him. The two alternative courses of action are use or resale of the asset under consideration. In order to choose between use or resale it is necessary to make a comparison between the two exit value concepts of an asset. Assets will be held for use in circumstances where their PV exceeds their NRV. If their NRV exceeds their PV it is in general economically appropriate not to use the assets, but to dispose of them<sup>4</sup>. According to the theory in general the concept of exit value to be applied in specific circumstances is the higher of PV and NRV. The higher of these two values has to be compared with the RC of an asset. In valuing the assets of an organisation, the lower of the RC of an asset and the relevant exit value determines the concept to be used (in the international literature this tripartite value concept has been mentioned the value-to-the-business-concept).

Six different combinations of the three value concepts can be identified. In three of the cases the assets of an organisation will be held for use within that organisation; in the other three cases the entity is in a process of disinvestment. RC appears to be the relevant basis of valuation in the majority of the cases examined (Lee, 1985, chapter 8).

For income determination purposes Limperg used the concept of distributable income, i.e. the increase in capital which can be distributed to suppliers of equity without

impairing the source of income (= maintaining the physical productive capacity of an organisation). Positive holding gains ( $RC > HC$  = historical cost) cannot be reported as distributable income, because these amounts are necessary for replacement of the assets in the future. According to Limperg negative holding gains ( $RC < HC$ ) create a special problem if there is no surplus left on the revaluation account. In his view the nominal equity capital of the firm should also stay intact to preserve the income-generating capacity of an organisation. Though positive holding gains do not imply distributable income (they are credited on a revaluation account, being a part of the equity capital group), negative holding gains create losses when the revaluation account is depleted.

Limperg's theory of replacement value accounting was slightly amended by himself throughout the years, thereby never leaving the "true-income"-idea. In one of the versions of his theory he introduced a "normal stock" level of both fixed tangible assets and inventories. In his view this normal level is necessary to guarantee uninterrupted operations in organisations. Deviations from this normal level lead to "speculation" results which do not have to be booked on the revaluation account, but have to be considered as distributable profits or as losses. Backlog depreciation on fixed tangible assets can be interpreted as speculation results leading to losses.

Limperg's theory has been amended and extended by other Dutch authors during the 1950's and 1960's. The most notable amendment was suggested by Van der Schroeff (1975), who threw doubt on the postulated necessity of maintaining nominal equity capital in all circumstances. Remarkable extensions were the introduction of a deferred taxation account related to a revaluation (Nederstigt, 1952) and the introduction of a gearing adjustment (Scheffer, 1962).

Several Dutch authors can be credited for "exporting" Limperg's ideas, though some of them took a very critical position. Well-known abroad are the publications of Van Seventer (1969, 1975), Burgert (1967, 1972), Enthoven (1976, 1982), and Klaassen and Schreuder (1984). Of these authors especially Burgert (1972) criticized the basic ideas of Limperg's replacement value theory in a very detailed and comprehensive way. His arguments have never been refuted by Limperg's adherents. The next paragraphs summarize the main points of the critics.

It is remarkable that the discussions in the Dutch accounting literature on RVA in

general demonstrated a rather parochial character. Certainly, there were authors who related RVA-concepts to concepts in the international literature such as Edwards and Bell's business income (Werkema, 1964; Bouma and Werkema, 1965) or to even broader concepts such as H.A. Simon's Behavioral theory (Bouma, 1966), and information economics. But the messages of these authors were generally neglected. The majority of the discussants restricted themselves to detailed analyses of several aspects of RVA, and especially of the ways these aspects had been expressed by Limperg and/or his "disciples". For instance, Limperg's claim that profit could be determined "unambiguously and accurately" has been attacked by many authors (a.o. Meij, 1948, 1954, 1960; Pruyt, 1954, and Van Straaten, 1957). Other examples of criticism very common in the Dutch accounting literature were the criticism on the double standard of physical capital maintenance and nominal equity capital maintenance in Limperg's theory; the lack of guidelines in identifying "economic identically" and "economic non-identically" replacement of assets; difficulties in determining the "normal level of activities" (Burgert, 1972). In general discussions were focused on the usefulness of a separation between a relatively objective process of profit determination on the one hand, and a more subjective process of profit appropriation on the other hand. The aforementioned points of criticism stressed the weaknesses of RVA in the first one of these two processes (e.g. Van Straaten, 1957)<sup>5</sup>.

The most prominent critic among the discussants in the 1950's until the 1970's was Burgert (1967, 1972). Inspired by the ideas of Edwards and Bell (1961), he proposed a step-by-step income statement in which the relatively objective parts of profit determination based on RVA were separated from the relatively subjective parts (caused by capital maintenance and financing decisions). He thus provided a variant of J.M. Clark's well-known adagium "different costs for different purposes". For the Limpergian diehards this adagium has always been unacceptable, as can be illustrated by the definite renunciation of direct costing in the 1950's.

Nowadays discussions about Limperg's RVA-system cannot be found any longer in the Dutch accounting literature; RVA certainly is not "alive and kicking" in Dutch current thinking. One of the reasons is that in concurrence with Anglo-Saxon trends a user approach to financial accounting has gained more and more ground from the 1970's on (e.g. Klaassen, 1975). A new generation of accounting theorists switched to inductive

survey research, which became very popular during the 1980's in the Netherlands (Dijksma, 1986-1990).

The change over from "general purpose, axiomatic" accounting to "user-oriented" accounting had consequences for the relation between accounting and business economic theory of decision making. Information produced by "general purpose accounting" is considered to be decision-relevant by definition, if it has been produced according to the a priori set of accounting principles and procedures. The corresponding decision models can be very simple. For instance, in the "bedrijfseconomie" the selling price of a product is determined as the product cost (according to the replacement value principles) augmented by an intuitively determined profit margin, just as simple as that.

Information produced by "user-oriented" accounting is decision-relevant if the reported data conceptually correspond with the variables included in the decision model concerned. So there is a reciprocal influencing between accounting and business economics. As the "bedrijfseconomie" generated little decision theory by itself, it "borrowed" some ideas from neo classical economics. In this way some writers, having adopted the marginalistic approach to pricing, came to the conclusion that marginal cost or variable cost or direct cost should be considered relevant for decision making.

From an Anglo-Saxon perspective it may be striking that so many Dutch authors did not try to integrate or to relate their views on RVA to the Anglo-Saxon mainstream of developments in accounting theory and empirical accounting research. Lee (1985) mentions a number of authors seldom referred to in the Dutch RVA literature. To mention just a few of them: Bonbright (1937), Solomons (1961), Sprouse and Moonitz (1962), Chambers (1966), Sterling (1970, 1971), Whittington (1974), Gee and Peasnell (1976) and Bell and Johnson (1979).

Meanwhile the rather parochial position taken by so many Dutch RVA-theorists has created a notable gap, not only between Dutch RVA theory and international theory, but also between theory and (international) practice. For example, it is remarkable that so little attention has been paid in the Dutch accounting literature to the Sandilands Report (1975) and to the introduction of Statement of Standard Accounting Practice 16



(1980) in the UK, though it is evident that this Standard closely fits into the RVA framework. A more recent example is the lack of references to Whittington's research paper on the valuation basis of financial reporting (1991). The Whittington research paper has been important in producing "The Future Shape of Financial Reports" (ICAEW and ICAS, 1991), a report which, by the way, has been noticed in the Netherlands.

Nowadays most Dutch authors are aware and convinced of the serious problems RVA and its use of mixed values brings forward. It is probable that they will have no problems with the following points of criticism, briefly summarized by Lee (1985, 118-20):

- value to the business refers to a relatively ambiguous valuation rule because it is based on hypothetical events (a.o. the deprivation of assets);
- the mixed value approach to income determination results in a heterogeneous mixture of asset values being used to compute current value income. The aggregation of different types of current value may produce capital and income figures which are relatively meaningless;
- the practical relevance of the value-to-the-business-concept must also be questioned in terms of the assumptions made (e.g. profitable entities which are in a state of relative equilibrium in a changing world and which are capable to adapt instantaneously to disturbing events).

### **RVA in practice**

Only a fraction of the companies listed on the Amsterdam Stock Exchange (ASE) have practised (elements of) replacement value accounting (about 15 to 20 percent in 1971/1972, Klaassen, 1975; during the seventies and eighties this percentage showed a decreasing tendency, NIVRA-Geschrift 60, 1992). For small corporations, not listed on the ASE, the frequency of application of replacement value accounting seems to be even worse. The Philips Electronics company, the internationally best known defender of the application of RVA, applied several advanced versions of the replacement value theory for external reporting purposes during the period 1945 - 1991 (Eindhoven, 1982; Brink, 1992). In 1992 this company changed its accounting policy by returning

to historical cost valuation in order to (Philips Electronics N.V. annual report 1992: 26):

- improve the communication with shareholders,
- simplify the (internal) accounting procedures, and
- diminish the differences with internationally accepted accounting standards.

This example of the Philips Electronics company demonstrates the weakening of a long standing close relationship between accounting theory and accounting practice in the Netherlands, where traditionally a greater weight had been given to "deductive and economic reasoning than to experience, convention, or accepted practices in the development of accounting concepts, postulates, and principles" (Enthoven, 1982: 30; section 2 of this article). Furthermore, it demonstrates the problems companies are confronted with when introducing RVA. Differences between theory and practice have especially been found in the following areas (Klaassen, 1975): the applicability of the concept of "normal stock", difficulties in measuring replacement values of fixed assets and the assessment of the amount of income tax in the income statement.

HC is, and always has been, more common than RVA in Dutch external financial reporting, be it that supplementing HC-information with RC-information is not uncommon. Nor the Dutch Act on Annual Financial Statements of Enterprises, nor the Council for Annual Reporting (and its predecessor the "Tripartite Overleg", a discussion group of auditors, employers and employees) and the Civil Code have been able to change this situation during the last 25 years. The permissive formulations in Dutch regulations certainly can be seen as an important explanation for this phenomenon. The Civil Code for example, after its amendments in the first half of the 1980's caused by the EC fourth Directive, does not require the use of RVA or HC. Instead, generally, companies are free to choose between RVA and HC, but if they choose for RVA the method of application is regulated by a decree which has very much in common with the aforementioned and described system of Limperg's RVA. This decree provides in effect for the use of the value-to-the-business-concept, or the concept of deprival value (e.g. Bonbright, 1937; Solomons, 1966; The Sandilands Committee, 1975; Lee, 1985). Intangible assets and current assets other than

inventories are not permitted to be valued at replacement cost.

### **Conclusion**

Since the seventies, after the death of Limperg and most of his direct epigones, the construct of the "bedrijfseconomie" has fallen apart. Each discipline formerly belonging to it, has independently found its tie-up with the respective international scientific developments. In the opinion of many Dutch economists "bedrijfseconomie" is a label of the professional education in business administration containing a relatively heavy curricular load of financial and management accounting. "Bedrijfseconomie" has lost its significance as a comprehensive academic discipline. Nowadays business economics, like any branch of economics in the Netherlands, has an important orientation towards US-literature. In section 4 we will demonstrate this by referring to a recent study of one of the authors of this article (Huijgen, 1996).

### **4. An application of modern financial accounting research**

In modern enterprises intangibles generally are of great importance. In many cases the continuity of an organisation even depends to a large extent on the value of its intangibles. One of the most prominent intangibles is goodwill, the topic dealt with in the remaining part of this section. Some accounting theorists interpret goodwill as the present value of a company's future excess profits. This future oriented interpretation of the concept of goodwill has brought other accounting theorists and practitioners in a difficult position, because of their mainly historical orientation and their use of concepts like realisation and conservatism. During the last decade many Dutch firms were confronted with strong (international) competition and consequently decided to adjust their accounting procedures in order to give a more complete and realistic view of the intangibles which are present in the organisation. For example, a few insurance companies are trying to introduce the concept of embedded value in their accounts for management accounting purposes; up till now there are no Dutch insurance companies using this concept for external reporting. For business economists the decision to deal with internally created goodwill as an intangible asset is not problematic, but for most

accounting theorists and practitioners it is. To put it bluntly: can a hybrid balance sheet exist using at the same time accounting values and economics values? As might be expected the Dutch found a permissive solution. Dutch accounting regulation leaves several options open for the treatment of purchased goodwill. On the one hand companies are allowed to capitalise goodwill, but systematic amortisation is required within a period of five years. If there are substantial reasons to assign the goodwill to a period longer than five years, the period of amortisation may be extended. In that case, these reasons have to be explained. The amount of capitalization is restricted to the difference between the fair value of the purchase transaction and the fair value of the separable net assets. On the other hand companies can choose for an immediate write-off against profits or equity reserves provided that the amount of the write-off is included in the notes. The option of immediate write-off against equity reserves is attractive since this method will boost reported profitability figures. This explains perhaps the popularity of the method of immediate write-off from equity reserves in practice: analysis of recent financial statements points out that more than 90% of Dutch stock-listed companies keep goodwill off-balance. The present situation contrasts with that of the second half of the 1970's when it was common practice to capitalise goodwill.

Dutch companies are not allowed to capitalise internally created goodwill. These expenses have to be accounted for as costs in the income statement. In this respect, the accounting regime seems to be inconsistent since a company growing as a result of an aggressive acquisition policy is allowed to capitalise its expenses, while an otherwise identical company with a policy of internal growth is required to write-off the expenses as incurred. This inconsistency in accounting regulation is due to differences in measurement problems between purchased and internally created goodwill. The expenses for purchased goodwill can be 'reliably' measured being the difference between the transaction price of the acquisition and the net separable assets. A reliable measurement of internal created goodwill is much more difficult and to a large extent subject to the discretion of managers. So the limited possibilities in implementing theoretical concepts certainly have influenced legislation and practice. However, companies may avoid the immediate write-off by giving internally created goodwill another name, for example research and development expenses. Under particular

conditions, these intangibles may be capitalised. With a few exceptions, Dutch companies do not use this option.

Huijgen (1996) examined the economic valuation of purchased goodwill by relating capital market variables to the expenses for purchased goodwill reported in financial statements of quoted Dutch companies. In his application of market-based accounting research he raised the following three questions.

- Do investors perceive purchased goodwill as an asset contributing to the market value of the company?
- Does the valuation of expenses for purchased goodwill differ from other components of equity book value?
- What is the perception of investors with respect to the issue of amortisation of purchased goodwill?

In order to answer the first research question Huijgen used the Feltham-Ohlson framework (1995) in which market values are related to reported equity book values and earnings<sup>6</sup>. Into this model he inserted accumulated goodwill expenses, as the reported book values of Dutch companies are seriously deflated due to the almost general practice of immediately eliminating purchased goodwill against equity reserves. For a sample of Dutch stock-listed companies, accumulated goodwill expenses significantly contributed to the explanation of market values in each year from 1989 to 1993, notwithstanding the fact that goodwill disclosures were made in footnotes.

Huijgen's second research question is directed to the suggested uncertainty of the future benefits of purchased goodwill compared to other (tangible) assets. This issue relates to the often-heard criticism with respect to the capitalisation of purchased goodwill that the principle of prudence does not allow recognition of uncertain and unrealised future benefits. Huijgen addressed this question by investigating whether investors discount the suggested uncertainty in valuing expenses of purchased goodwill compared to reported equity book value. In a valuation analysis, however, he found

that the estimated coefficients of accumulated goodwill were higher than the coefficients of reported equity book value in the regression equations, meaning that investors assigned more value to a guilder of goodwill expenses than to a guilder of reported equity capital<sup>7</sup>

A related issue is the problem of whether and how to amortise purchased goodwill, which is raised in the third research question. Comparing the estimated coefficients of purchased goodwill and reported equity book value in the valuation analysis, Huijgen showed that investors perceived goodwill as an asset with a long economic life, presumably about 40 years. He emphasized, however, that these results should be interpreted with great caution, since the analysis with respect to the amortisation issue hinges on rather stringent assumptions, such as constant yearly goodwill expenses and equal amortisation rates for each industry sector. Moreover, a return analysis did indicate that the information content of reported earnings is increased by amortising purchased goodwill as a charge in the income statement<sup>8</sup>.

## **5. Conclusion**

The mutual connections between changing features of the firm, business economics and accounting developments can be studied from different theoretical perspectives. The Dutch interpretation of business economics (“bedrijfseconomie”) encompassed a narrow view on these relationship, as has especially been demonstrated for the development of relations between replacement value accounting and business economics. Since the 1970's business economics has lost its significance as a comprehensive academic discipline. It has been split up in several rather independent fields. However, during the last decade most disciplines found its tie-up with the respective international scientific developments. To some extent this is also the case for the theory of value. As an illustration of these recent developments we gave a summary of an example of Dutch financial accounting research. In this example Huijgen (1996) has tried to relate the Feltham-Ohlson valuation framework to the accounting problem of goodwill.

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## Notes

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<sup>1</sup> Limperg (1879 - 1961) was appointed in 1922 as a Professor of Business Economics (including Accounting and Auditing) at the University of Amsterdam. He occupied that chair until 1949. He published a relatively small number of articles, almost exclusively in Dutch. Limperg's former students and others spread his ideas (Groeneveld et al., 1965). The originality of these ideas, especially in relation to those of Limperg's German colleague Schmidt, has been questioned several times (see e.g. for a recent publication Clarke and Dean, 1992). Limperg himself always has denied German influences on his thinking.

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<sup>2</sup> The theory of mixed values has been neatly summarized by Lee (1985, chapter 8). The ideas in the (British) Sandilands Report (1975) are highly corresponding with those of Limperg.

<sup>3</sup> The present value concept can also be called the concept of economic value.

<sup>4</sup> In the context of this paper it is not possible to do justice to the many subtleties in Limperg's theory. That is why the expression "in general" is used. One of the important subtleties in Limperg's theory not elaborated in this article is the concept of "economische vervangbaarheid" (economical replaceability).

<sup>5</sup> The ideas of Van Straaten are highly corresponding with those of the chairman of his Phd-committee, Prof. J.L. Meij.

<sup>6</sup> In essence this model is based on the following three assumptions:

- the acceptance of the validity of the dividend discount model;
- the clean surplus equation of accounting earnings, i.e. all changes in equity book values apart from capital contributions and distributions are included into earnings;
- certain characteristics of the time-series path of abnormal earnings.

The model can be written as (Huijgen, 1996, p. 41):

$$P_t = (1 - \alpha_1 k) Y_t + \alpha_1 k \left[ \frac{X_t (k + 1)}{k} - D_t \right] + a_2 v_t \quad [1]$$

where

$P_t$  = price (or market value) at time t

$\alpha_1$  = abnormal earnings multiplier

$k$  = required rate of return which is assumed to be constant

$Y_t$  = equity book value at time t

$X_t$  = accounting earnings in period t

$D_t$  = dividends at time t

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$\alpha_2$  = other information multiplier

$v_t$  = term representing the impact of information at time t, other than current abnormal earnings, on future abnormal earnings

<sup>7</sup> The valuation analysis is based on equation [1].

<sup>8</sup> The return-version of equation [1] is:

$$R_t = (1 - \alpha_1 k) \frac{X_t + \alpha_1 (k + 1)(X_t - X_{t-1}) + \alpha_1 k D_{t-1}}{P_{t-1}} \quad [2]$$

where

$R_t$  = the change in price corrected for dividends paid, divided by the price in the previous period.