

**INTERPRETING HISTORICAL
FINANCIAL ACCOUNTING DATA.**
Examples From The Belgian Coalmining Industry

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INTRODUCTION

This article wants to indicate some of the problems concerning the interpretation of historical financial accounting data. It is based on an analysis of archival records of 15 coal mines in the Liège area and one Limburg mine.¹ The time period studied is the first half of the 20th

1. The companies included in the research are the Soc. Charbonnière de Gosson Lagasse (Jemeppe-sur-Meuse), S.A. des Charbonnages du Horloz (Tilleur), S.A. des Charbonnages de la Basse-Ransy (Vaux-sous-Chèvremont), S.A. des Charbonnages de la Haye (Liège), S.A. des Charbonnages Réunis de la Concorde (Jemeppe-sur-Meuse), S.A. des Charbonnages des Kessales (Jemeppe-sur-Meuse), S.A. des Charbonnages de Gosson, La Haye et Horloz Réunis (Tilleur), Charbonnages d'Abhooz et Bonne-Foi Hareng (Herstal), S.A. des Charbonnages réunis de la Minerie (Battice), S.A. du Charbonnage du Bois d'Avroy (Sclessin), Charbonnage des Six-Bonniers (Seraing), Charbonnage Colard (Seraing), S.A. des Charbonnages de Bonne Fin, S.A. des Charbonnages de Bonne Espérance, Batterie et Violette and the S.A. des Charbonnages André Dumont (Waterschei). The Liège region was selected because large series of archival documents from coalmines in this area have been preserved. The research in the Liège area was completed with the study of one coal mine in the Campine area, the S.A. des Charbonnages André Dumont. A large series of documents of this coal mine were deposited in the State Archives in Beveren and are not normally open to the public. However, I was granted permission by the Kempense Steenkoolmijnen to consult these documents. They were included in the analysis because part of them proved to be of a different nature than the documents from Liège. They do not include many actual accounting documents, but a large series of studies concerning e.g. elements of administrative

century.

Accounting can be defined as 'an information system that measures, processes, and communicates financial information about an identifiable economic entity'. The difference between financial and managerial accounting (the latter including cost accounting) could then be that financial accounting is used as the general term indicating all types of 'accounting information that, in addition to being used internally by management, is communicated to those outside the organization', while managerial accounting 'refers to all types of accounting information that are measured, processed, and communicated for the internal use of management'.² This paper deals with financial accounting only, since quite often these accounting data are available to historians.

The analysis included both the accounting systems that were used by the mines studied and the financial statements they produced. During the period under investigation, accounting systems could differ significantly from one company to another: legal regulations were very limited and companies could easily adapt their accounting practices to their changing needs. This variability makes interpretation of accounts (and of the reports they produced) quite difficult. This problem is illustrated in the discussion of a number of items that are important for a correct interpretation of the financial statements. Attention is given to capitalisation of costs, valuation rules, depreciation, etc.

GENERAL REMARKS ON THE AVAILABLE SOURCES

If the historian wants to study accounting practices in an historical context, (s)he should have access to accounting documents such as books, annual reports, cost sheets etc. For the coalmines studied here, such documents were available. However, some general remarks must be made.

The name of the documents may be very promising, but the actual contents were sometimes disappointing. Minutes of general meetings e.g. generally only include references to the legal obligations regarding these meetings, i.e. a review of the publicity given to the meeting, the control of the regularity of the meeting, the counting of the number of

organisation, efficiency and investments in fixed assets and notes sent by the general manager to the managers of the different departments, among which the accounting department.

2. B.E. NEEDLES, H.R. ANDERSON, J.C. CALDWELL, *Financial and managerial accounting*, Boston, 1991, p. 3 and 9.

shares present or represented, the mention that the report of the administrators is read and the financial statements approved, and the statutory appointments. The same goes for e.g. minutes of Board of Administrators' meetings: if they only mention that a report on the activities of the company is read, no valid conclusions can be made on the use of accounting information in these reports. Fortunately, the internal reporting practices are generally quite well documented and, for the general meetings, the printed reports and statements are often preserved.

A second major problem is that generally essential documents are missing. For a correct interpretation of the accounting system, one needs to get a global view of all books that were used in order to find out how transactions were recorded and how the information flowed through the system. This is however not the case: quite often, it was only the general ledgers which were preserved, and, in a number of cases, also the journals. Other books, e.g. industrial journals, sales and purchase books etc., are generally missing or they were not used. The incompleteness of the books preserved makes interpretation and reconstruction difficult. It is e.g. hard to find out how the financial accounting system related to the establishment of unit cost: how did information flow, were there links between both? This incompleteness is furthermore strengthened by another kind of incompleteness, viz. the lack of long time series of more than one book. Quite often, only one type of book is preserved, and in those few cases where there is more than one, they often relate to different periods, thus making it once again impossible to find the relation between actual figures.

Finally, what may be a rather fundamental issue regarding a correct interpretation of the accounting systems is the absence of information on valuation rules. Since it is difficult to link figures, e.g. between unit cost calculation and accounting books, the availability of data on how inventory, sales, purchases, amortization etc. were valued would have made a correct assessment of the accounting information easier. In the present situation, information on valuation rules is incidental, and in a lot of cases, I even doubt whether it is possible to come to any rational interpretation of the figures at all.

INTERNATIONAL DEVELOPMENT OF ACCOUNTING PRACTICES

Financial accounting changed significantly during the second half of the 19th and the first half of the 20th century. This section deals with the evolution of financial accounting abroad. The following description mainly deals with the United States and the United Kingdom, since it is in these countries that we are best informed on the evolution of financial accounting practices. Nevertheless, even in those countries, there are but very few 'general' studies on the evolution of financial accounting;³ many studies deal with the practices of individual firms.

At the end of the 19th century, the American economy had fundamentally changed. Corporations dominated the industry, production possibilities were expanded by technological progress and extended transportation and communication facilities permitted centralization and mass distribution.⁴ Financial capitalism led to a split-up between ownership and management and finally supported demands for publicity to allow investors to make informed decisions. These demands for corporate accountability to stockholders eventually turned out to be working to the benefit of the emerging independent accounting profession. In 1902, an official commission recommended that all larger corporations should publish each year an audited report that showed in detail the assets and liabilities, and profits and losses.

Before the First World War, proprietary theory was the conceptual framework that was most generally found among accounting theorists.⁵ Since these mainly wanted the accounting system to measure the return to the owner (i.e. the shareholder), emphasis was put on the distinction between equity and liabilities. Income was not considered as a funds flow, leading to an emphasis on the balance sheet rather than on the profit and loss account. During the First World War, the original his-

3. Two general studies can be mentioned as an illustration: G.J. PREVITS, B.D. MERINO, *A history of accounting in America*, New York, 1979, and J.R. EDWARDS, *A history of financial accounting*, London, 1989; both spend a considerable number of pages on the twentieth century evolution of financial accounting, although the first is to a large extent a history of the accounting profession.

4. This and the following: G.J. PREVITS, B.D. MERINO, *o.c.*, 1979, p. 127 ff.

5. G.J. PREVITS, B.D. MERINO, *o.c.*, p. 165 ff. Discussions of theoretical concepts of accounting and reporting can e.g. be found in K. KAFER, *Theory of Accounts in Double-Entry Bookkeeping*, Illinois, 1966, or in K.S. MOST, *Accounting theory*, Columbus, 1982.

torical cost concepts were relaxed, leading to inflation-corrected concepts of capital maintenance and depreciation in order to have the financial statements give a true and fair view of the company. Also valuation at the lower of cost or market value became more widely accepted.

In 1922, Paton's 'Accounting Theory' was published, stressing the consequences of the split-up between ownership and management and giving a first outline of entity theory, which would lead eventually to a certain shift from the balance sheet to the profit and loss account: in 1943, Paton cited e.g. a statement of the American Institute of Accountants which said that the most important task of accounting reports was the determination of income over subsequent years.⁶

The following development of accounting theory consisted of a mixture of several theories, and most accountants would agree that none of these theories could be applied to give the best result in all possible cases.⁷ Topics discussed in this period were secret reserves, income and profit definitions and the advantages of imposing uniform accounting practices. In the twenties, budgeting, implementation of standard costing systems and the further development of scientific management principles were important tasks for accountants.⁸ Financial accounting practices became less conservative. Different measurement models were introduced; replacement cost was widely discussed, as was accounting for capital represented by shares without a nominal value.

During the thirties, there was a marked tendency to give up attempts to unify accounting methods, because accountants thought this would create an illusion of assurance on behalf of the users of financial information. The idea was widely accepted that assets and liabilities could only be valued taking account of management's policy and that financial statements were to a large extent subjective. However, the thirties also witnessed (in the securities acts of 1933-34) the introduction of governmental bodies (such as the Federal Trade Commission

6. W.A. PATON, 'Recent and prospective developments in accounting theory', in: *Dickinson Lectures in Accounting*, Cambridge, Mass., 1943, pp. 85-131. (reprint in S. ZEFF, (ed), *Selected Dickinson Lectures in Accounting 1936-1952*, New York, 1978, unr. nr.)

7. Some information regarding the development of accounting principles in the U.S.A. can also be found in A. DE COEN, 'De ontwikkeling van boekhoudtheorie in de V.S.A.', in: *Didacta*, X, 4, 1987, pp. 30-37.

8. G.J. PREVITS, B.D. MERINO, *o.c.*, 1979, p. 200 ff.

and later on the Securities and Exchange Commission) in the process of issuing accounting standards. SEC gave financial reporting a clearly future-oriented contents, since it wanted the major aim for the statements to be an aid in predicting future earnings. However, it remained discussed which concept of income was best suited for this purpose.⁹

Higher inflation resulted in the post World War Two period in a new discussion on replacement cost. Historical cost remained nevertheless the generally accepted valuation base. Apparently, some major accounting problems did not find a satisfactory solution; in 1963 e.g. Oskar Morgenstern stated that 'most financial statistics will generally be regarded as highly, if not completely, accurate and satisfactory. Yet such a view cannot be shared without strong qualifications.'¹⁰

One of the American corporations whose financial reporting practices have been studied in detail is the United States Steel Corporation.¹¹ The annual reports of this company apparently were very informative already at the beginning of this century. Before 1939, they '(seemed) to be designed particularly for the statistician or analyst who might find delight in having all amounts arranged in comparative, columnar form'.¹² From 1939 onwards, the reports were reduced in size and contained less details. The type and contents of the balance sheet remained rather unchanged during the first half of this century. From 1942 onwards, the balance sheet and income statement were much more condensed than before. For example, the balance sheet that took two pages and 45 captions in 1928, was reduced to 1 page and 30 captions. Additional information remained available however through supporting schedules. U.S. Steels' shareholders apparently received detailed information. The most important question however, is whether you can extend these conclusions concerning U.S. Steel to the American economy in general. Probably, you can't. In 1917, the Federal Reserve Board published a text, titled 'Uniform accounts', prepared by

9. Profit measurement is one of the most recurrent themes in the history of financial accounting (T.A. LEE, 'The evolution and revolution of financial accounting: a review article', in: *Accounting and Business Research*, Autumn 1979, p. 295).

10. O. MORGENSTERN, *On the accuracy of economic observations*, Princeton, 1963 (2nd ed), p. 71.

11. R.S. CLAIRE, 'Evolution of corporate reports – observations on the annual reports of the United States Steel Corporation', in: *Journal of Accountancy*, Jan. 1945, LXXIX, pp. 39-51.

12. R.S. CLAIRE, *o.c.*, p. 41.

a committee from the American Association of Public Accountants.¹³ According to this text, the Federal Trade Commission found a great lack in uniformity in the preparation and presentation of financial statements. This is confirmed by other sources: Chambers states that in the twenties of this century, a lot of companies did not have a consistent depreciation policy: depreciation charges were manipulated to smoothen results. Sometimes, goodwill was included in the valuation of other assets and exceeded to a large extent the value of these other assets, whilst it should not have been capitalized at all. There was a long lapse of time between events and the distribution of financial data on those events. Holding companies did not disclose information on subsidiaries nor on the group as a whole. Finally, financial statements led to misinterpretation due to their technicality or their extreme condensation.¹⁴

The lack of consistent accounting practices and theory was criticised by contemporary accounting scholars, but this had no influence on actual practice.¹⁵ From 1926 onwards, the New York Stock Exchange tried to improve the financial statements of public companies. Because of a number of scandals, public opinion supported relementation, finally leading to the Securities Act 1933,¹⁶ but different accounting frameworks remained in use. In 1948, according to May, some basic problems still remained unsolved. As main questions, he lists: 1) should fixed assets be valued based on historical costs or should price evolution be taken in consideration, and on what basis should depreciation be calculated; 2) how should inventory be valued (cost, lower of cost

13. On the history of this text, see the reprint of an article of M. MOONITZ taken from the *Journal of Accounting Research*, in M. MOONITZ (ed.), *Three contributions to the development of accounting principles prior to 1930*, New York, Arno Press, 1978, iii. p.; this reprint also includes the full text of 'Uniform accounts', reprinted from the *Federal Reserve Bulletin*, April 1917, pp. 270-284.

14. R.J. CHAMBERS, 'A theory of the development of accounting practices', in: R.J. CHAMBERS, *Accounting evaluation and economic behavior*, Prentice Hall, 1966, p. 347.

15. See for example J.B. CANNING, *The economics of accountancy*, New York, The Ronald press Company, 1929, viii-356 p. (reprinted by Arno Press, New York, 1978); see also R.J. CHAMBERS, 'Cannings' *The economics of Accountancy - After 50 years: review article*', in: *The Accounting Review*, oct 1979, 54 (4), pp. 764-775.

16. G.O. MAY, 'Improvement in financial accounts', in: *Dickinson Lectures in Accounting*, Cambridge, Mass., 1943, pp. 1-48 (reprint in S.A. ZEFF (ed), *Selected Dickinson Lectures in Accounting 1936-1952*, New York, Arno Press, 1978).

or market, standard cost or normal cost); 3) how should premature liquidation of assets be accounted for; and 4) how should corrections relating to past events be registered. For these and other questions, contemporary standards had no fixed rules.¹⁷ Even in the sixties (and probably up to now), different accounting practices rendered the relevance of making comparisons of companies through published financial statements rather limited.¹⁸

The situation described by 'Uniform accounts' seems to be in accordance with the European situation. In the United Kingdom, prescriptions relating to financial statements could be found in the Companies Acts, but were not very detailed.¹⁹ The origin of external reporting practices seems also in this country to have been the protection of shareholders.²⁰ There were no generally accepted accounting, auditing or reporting practices: the legal prescriptions varied in time and from industry to industry, making difficult comparisons in time or between companies in different industries.²¹ Greatly due to alleged manipulation of railway financial statements around the mid 19th century, some regulation was enforced in the sixties.²² Although the

17. G.O. MAY, *o.c.*, p. 21.

18. O. Morgenstern gives some examples for 1959. EI Dupont Company e.g. brought goodwill and patents on its balance sheet for more than 40 million \$, while Union Carbide only mentioned them pro memoria; Coca Cola valued patents and trademarks at 40 million \$, while Pepsi Cola evaluated these intangible assets only at 4 million \$. This makes the calculation of industry averages quite meaningless (O. MORGENSTERN, *On the accuracy of economic observations*, Princeton, Princeton University Press, 1963 (2nd ed), p. 75-76).

19. This and the following S. MARRINER, 'Company financial statements as source material for business historians', in: *Business History*, XXII, 1980, 2, p. 206 and following. A survey of 18 and 19th century accounting concepts in Britain can be found in G.A. LEE, 'The concept of profit in British accounting, 1760-1900', in: *Business History Review*, XLIX, 1, spring 1975, pp. 6-36.

20. T.A. LEE, 'Company financial statements. An essay in business history 1830-1950', in: S. MARRINER (ed), *Business and businessmen. Studies in business, economic and accounting history*, Liverpool, 1978, p. 237.

21. Parker points to the fact that major industries in 19th century Britain had specific regulations, such as railways, public utilities and financial institutions (R.H. PARKER, 'Regulating British corporate financial reporting in the late nineteenth century', in: *Accounting, Business and Financial History*, I, 1, 1990, pp. 51-71).

22. Regarding railway accounting in this period, see R. A. BRYER, 'Accounting for the "railway mania" of 1845 - a great railway swindle?', in: *Accounting, Organizations and Society*, XVI, 1991, 5/6, pp. 439-486.

Companies act of 1865 had proposed a balance sheet model,²³ most company reporting took place on a voluntary basis; no format was prescribed for the balance sheet between 1908 and 1948; the profit and loss account was regarded as even less important and was not to be published.²⁴ British financial statements generally suffered from severe condensation, grouping together a number of dissimilar assets and valuing them collectively. Generally, one can say that often accounting methods that best suited the goals of management were preferred to an application of principles such as consistency or comparability.²⁵ The treatment of depreciation varied very much, depreciation rates often depending on profit figures, as is illustrated by Lee and Edwards.²⁶ Assets could be amortized at different rates, or the initial assets could be maintained on the balance sheet without amortization, all additional expenses relating to these assets being charged to revenue.²⁷ Companies sometimes charged depreciation against revenue, while in other

23. K.S. MOST, *Accounting theory*, Columbus, 1982, p. 38. Regarding legislative requirements in the 19th century, see also R. MA, 'A note on the use of selling prices - some examples from the nineteenth century', in: *Abacus*, XVIII, 2, dec 1982, p. 130-131.

24. According to Most, the Industrial Revolution had led to putting more emphasis on the profit and loss account, leading to regulations regarding stock valuation, depreciation, recognition of profits and the creation of provisions (K.S. MOST, *o.c.*, p. 38). Most also notes that after the Industrial Revolution, the United Kingdom experienced the separation of financial and managerial accounting, existing up to today.

25. J.R. EDWARDS, 'British capital accounting practices and business finance 1852-1919: an exemplification', in: *Accounting and Business Research*, X, 38, spring 1980, p. 242; J.R. EDWARDS, K.M. WEBB, 'The influence of company law on corporate reporting procedures, 1865-1929. An exemplification', in: *Business History*, XXIV, 1982, 3, p. 259.

26. J.R. EDWARDS, *o.c.*, p. 242 ff.; T.A. LEE, *o.c.*, passim; Edwards discusses the accounting practices of the Shelton Bar Iron Company, while large part of the latter article is in fact a case study of the accounting practices of Distillers Company Limited between 1881 and 1944, both discussing among other things the depreciation policy (or 'policies') of both companies. Lee qualifies the financial information reported to the shareholders of D.C.L. during this period 'dubious' (p. 248). See also R.P. BRIEF, 'The origin and evolution of nineteenth-century asset accounting', in: *Business History Review*, 1966, 1, pp. 1-23.

27. R.H. PARKER, 'Misleading accounts? Pitfalls for historians', paper presented at the Congress of the European Accounting Association, Maastricht, 1991, p. 9.

years it was part of the profit appropriation.²⁸ The creation of secret reserves via accelerated depreciation was widely spread, until the Companies Act 1948 prohibited their use.²⁹ In the 1920s, understatement was an important feature of financial reporting.³⁰ Profit figures were often smoothened, as well in good years as in years with bad results. Profits and losses were also manipulated through the statements of subsidiaries. Information on the activities of these subsidiaries was virtually absent from the financial statements. Information on investments was generally not detailed.

Some companies very often changed the format of their statements, making comparisons difficult. Other companies did not change the format often, but also then, there was the problem of the quality and veracity of the financial data included.³¹ Some companies published an abridged version of the shareholders' balance sheet, and minimised in this way the information made available to the general public; Edwards and Webb note however that this was not usual practice.³² Consolidated statements seem to have been rare before the Companies Act 1948, creating interpretation problems for those companies that belonged to a group, whether it be as parent or as subsidiary company.³³

In a paper on the use of financial statements as source for business history research in the Netherlands, the author comes to the same conclusions as Marriner and Lee.³⁴ Problems are mainly caused by the

28. J.R. EDWARDS, K.M. WEBB, 'The influence of company law on corporate reporting procedures, 1865-1929. An exemplification', in: *Business History*, XXIV, 1982, 3, p. 265.

29. See also T.A. LEE, *o.c.*, p. 243 and 254; an important role was played by what is known as the Kysant case, in 1931, where the judge condemned the creation of secret reserves.

30. J.R. EDWARDS, 'British capital accounting practices and business finance 1852-1919: an exemplification', in: *Accounting and Business Research*, X, 38, spring 1980, p. 241.

31. J.R. EDWARDS, K.M. WEBB, 'The influence of company law on corporate reporting procedures, 1865-1929. An exemplification', in: *Business History*, 1982, 24(3), p. 261.

32. J.R. EDWARDS, K.M. WEBB, *l.c.*

33. T.A. LEE, *o.c.*, p. 259; R.H. PARKER, 'Misleading accounts? Pitfalls for historians', in: *Business History*, XXXIII, 4, October 1991, p. 9.

34. P. VAN DE LAAR, 'De gepubliceerde jaarrekening als bron van bedrijfs-historisch onderzoek', paper presented at the fina-congres, Erasmus Universiteit Rotterdam, 6 juni 1991, 12 p.

lack of compelling rules, that in the Dutch situation existed until 1970: the only rules regarded the asset side of the balance sheet of a limited number of larger limited companies, without enforcing valuation rules. There was no consistency in the presentation of the balance sheet; regarding capitalization and amortization, different rules were used. In the companies Van de Laar studied, inventory was generally entered based on historical cost, although without indicating how this cost was calculated. Inventory sometimes was not capitalized. Fixed assets were registered at historical cost less depreciation, but depreciation was not always based on historical cost. Amortization also depended on the results of the company. Fixed assets were sometimes entered pro memoria. There was very little information on subsidiaries. The number of captions in the financial statements generally was very limited and their contents not clearly defined, although some improvement could be found from the 1950s onwards. As an example, at the start of the period Van de Laar studied (1945-1960), there was no clear distinction between reserves and provisions. Profit and loss accounts had little informative value: turnover and costs were not specified.

This short survey of the financial reporting practices in a few countries might indicate the main problems that the accounting historian will meet when studying published financial information. Reporting practices not only differed from one country to another, but also within one country and both at the same time and at different moments in time. The main issue for accounting historians, trying to interpret published financial information, is therefore probably the lack of comparability and consistency. In all countries, compelling rules regarding the contents and basic principles for the elaboration of balance sheets and profit and loss accounts seem to have been limited.

THE LEGAL SITUATION IN BELGIUM

During the first half of the twentieth century (and until the passing of the Law of July 17, 1975), accounting rules were only to a limited extent legally prescribed in Belgium.³⁵ The obligations can be found in title III and title IX of book 1 of Commercial Law ('Wetboek van Koophandel'). The basic legislation goes back to 1872³⁶ and most

35. J. CARDLJN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 123.

36. Law of December 15, 1872.

proposals to adapt the law to changing economic situations originated after the Second World War.³⁷ Apart from legislation, there existed an accounting doctrine that was based on principles that at the moment are included in the accounting law; this doctrine (that can be found in the accounting literature of the period) was not always applied in practice.

Commercial Law prescribed the keeping by each trader or merchant of a number of books.³⁸ Compulsory were the journal ('dagboek'), the book with the copies of letters ('brievencopieboek') and the inventory book ('inventarisboek'). For certain categories of traders or companies, additional obligations existed, based on other laws (see further).

The journal 'présente, jour par jour, ses dettes actives et passives, les opérations de son commerce, ses négociations, acceptations ou endossements d'effets, et, généralement, tout ce qu'il reçoit et paye, à quelque titre que ce soit, et qui énonce, mois par mois, les sommes employées à la dépense de sa maison'.³⁹ This book has a central role in the bookkeeping system. Often, transactions are first entered in auxiliary journals and afterwards centralised in a central book ('centraal boek').⁴⁰ Cardijn & Vanes also mention a method, mainly used in

37. See J. CARDIJN, F.R. VANES, *De hervorming van de wetgeving op de boekhouding der ondernemingen*, Leuven, 1949, and J. CARDIJN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 126 ff. An elaborate bill was introduced in 1939, but never became a law (*Parlementaire Stukken*, Kamer, Buitengewone Zitting van 1939, 8 juni 1939, n° 102, pp. 1-44). The bill proposed among other things stricter rules regarding the accounting treatment of administrators', directors' and auditors' entitlements, the independence of auditors and the financial statements. Another important one was the bill of 1948, extensively discussed in Cardijn en Vanes, 1949; the official documents can be found in *Parlementaire Stukken*, Kamer, 1947-1948, Zitting van 18 mei 1948, n° 470, pp. 1-20. The bill was partly based on the 1939 proposal and was introduced and transferred to the Commission for Economic Coordination and the Special Commission for Structural Reforms; in the parliamentary documents of the next 4 years however, the document is not mentioned anymore and it never became a law; its contents were in the fifties brought together with some other proposals (see J. CARDIJN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 126).

38. J. CARDIJN, F.R. VANES, *De hervorming van de wetgeving op de boekhouding der ondernemingen*, Leuven, 1949, p. 8 and *Encyclopédie générale du Commerce et de l'Industrie*, t. 1, Bruxelles, s.d., p. 251. These legal obligations can be found in Book 1, Title III, art. 16-19 of the 'Wetboek van Koophandel'.

39. Law of December 15, 1872, art. 16, al. 1.

40. J. CARDIJN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 123.

large companies, where transactions are registered first in the accounts, and afterwards transferred to the journal in global entries. This method is not in conformity with the law.

The book with the copies of letters contains the outgoing as well as the incoming correspondence: 'Tout commerçant est tenu de mettre en liasse les lettres missives et les télégrammes qu'il reçoit, et de copier dans un registre les lettres et les télégrammes qu'il envoie'.⁴¹ The purpose of this book was the creation of a possibility to control the accounts.⁴² Cardijn and Vanes note that the chronological collection of the correspondence remained undone and was replaced by a classification that was more in line with the needs of the company.⁴³

Finally, also the yearly inventory taking had to be registered in a book: each trader 'est tenu de faire tous les ans, sous seing privé, un inventaire de ses effets mobiliers et immobiliers et de ses dettes actives et passives, et de le copier, année par année, sur un registre spécial à ce destiné'.⁴⁴

Also here, one has to admit that the registration in a book sometimes was omitted: a number of companies apparently kept a series of cards, without collection or transcription.⁴⁵

Through particular laws, some categories of traders were obliged to keep additional books (e.g. stockbrokers, financial institutions, or the National Railway Company).⁴⁶ Also fiscal regulations compelled the keeping of specific books. The Law of August 28, 1921 on the 'taxe de transmission' demanded that each trader (except the retailers) kept a book of incoming and outgoing invoices.

Based on or related with the journal, a number of additional books could be found: a draft book (registering the transactions temporary), subsidiary ledgers, cash book, purchase/sale book, 'livre de commerce ou de portefeuille' (for securities to receive/to supply), book with the expiration dates for securities, and warehouse book. The creation of a

41. Law of December 15, 1872, art. 16, al. 2.

42. J. CARDIJN, F.R. VANES, *De hervorming van de wetgeving op de boekhouding der ondernemingen*, Leuven, 1949, p. 12.

43. J. CARDIJN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 124.

44. Law of December 15, 1872, art. 17.

45. J. CARDIJN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 124.

46. *Encyclopédie générale du Commerce et de l'Industrie*, Bruxelles, t. 1, s.d., n° 678, p. 252.

general ledger was not obligatory.

For the books that were compulsory, a number of formal requirements are imposed.⁴⁷ The pages have to be numbered, journal and inventory book have to be initialised by the Court of Commerce or the local authorities. All books have to be kept chronologically, without white pages or gaps. The books have to be preserved for a period of 10 years and can be used as a proof between traders.

Sanctions when not complying with these rules are rather limited: in case of bankruptcy, the trader who does not keep books or is not in accordance with the legal prescriptions regarding bookkeeping, can be declared in 'simple bankruptcy' ('eenvoudig bankroet'). Apparently, this lack of serious sanctions lead to a situation where a lot of smaller traders kept virtually no books. The evolution of business also made the legislation quickly obsolete, so that it was rarely strictly adopted, even in larger companies.⁴⁸ Nevertheless, one had to wait until 1975

47. Law of December 15, 1872, art. 18-20.

48. *Encyclopédie générale du Commerce et de l'Industrie*, t. 1, Bruxelles, s.d., p. 254, n° 687; "In de praktijk kan worden geconstateerd dat de wettelijke verplichtingen betreffende de boekhouding op de handelsondernemingen, wegens het ontbreken van doeltreffende sancties, in het geheel niet, of wegens het verouderd karakter der wetgeving, nog slechts op fragmentaire wijze nageleefd worden." (J. CARDIJN, F.R. VANES, *De hervorming van de wetgeving op de boekhouding der ondernemingen*, Leuven, 1949, p. 12); "De wetgeving dateert van 1872 en sedertdien hebben zich grondige wijzigingen voorgedaan in het bedrijfsleven. Inderdaad de sterke vermeerdering en de groeiende verscheidenheid der handelsverrichtingen, de toeneming der briefwisseling, de verbetering van de administratieve techniek, de invoering van kantoormachines, de rationalisatie en de arbeidsverdeling in de boekhoudkundige werkzaamheden zijn enkele der vele oorzaken die voor gevolg hadden dat de wetgeving steeds minder wordt nageleefd." (J. CARDIJN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 123). Also an authority as J. Van Ryn stresses the inadequate character of the legislation (J. VAN RYN, *Principes de droit commercial*, tome 1, Bruxelles, 1954, p. 123, n° 168). Bastin lists the main shortcomings in the accounting practices of the time: accounting is not quantitative enough, cost prices are based on diverging calculation systems, the terminology is badly defined, the classification of basic items is bad, there is often no distinction between technical/commercial/financial management, unit cost does not consider capacity utilization, valuation at inventory date is often arbitrary and the concept of profit is unclear (R. BASTIN, F. SPILLEMAEKERS, G. DENHAENE, *Etude d'un plan comptable unifié*, Bruxelles, 1944, p. 9-18). The legislator also realised this: "In het algemeen echter dagtekenen de wettelijke voorschriften uit een vervlogen tijdperk, dat wezenlijk van het huidige verschilt door de levendigheid van het bedrijfsleven, door het belang van de bedrijvigheid der

to see a more elaborate accounting legislation being imposed.⁴⁹

An elaborate historical survey of the evolution of Company Law during the first half of this century does not exist in Belgium, and many provisions are for this paper rather less important. Therefore, I shall only introduce some of the main relevant items that can be found in Book 1, Title IX of the Commercial Law, titled 'On Companies' ('Des sociétés').⁵⁰ A number of Company Law regulations had an immediate impact on accounting. Art. 12 of the Law of May 18, 1873 stated that the administrators of a public limited company had to make an inventory each year of the 'aktieve en passieve schulden, de roerende en onroerende waarden' (assets and liabilities, current and fixed

ondernemingen voor het welzijn van de gemeenschap en ook door het nieuwe uitzicht van de sociale betrekkingen die uit het bestaan van elke onderneming voortvloeien. Dit is de reden waarom de Regering het nodig acht de boekingsregelen nader te bepalen, die door alle ondernemingen van enig belang moeten in acht genomen worden." (Memorie van Toelichting bij het Ontwerp van Wet betreffende de boekhouding in de ondernemingen, *Parlementaire Stukken*, Kamer, 18 mei 1948, n° 470, p. 1). Anyway, as late as 1960, the Belgian Banking Commission still had to conclude "Zowel in België als in het buitenland zijn de door de vennootschappen gepubliceerde balanssen, winst- en verliesrekeningen en orderekeningen soms laconisch en onvolledig zonet onbetekenend" (*Bankcommissie 1935-1960*, Brussel, 1960, p. 150).

49. For some industries, accounting obligations were already extended before 1975. For the coalmining industry e.g., a ministerial decree of May 22, 1965, imposed uniform accounting practices and chart of accounts, including analytical accounts (H. OLIVIER, *Le plan comptable - Het rekeningstelsel*, Brussel, 1979, p. 156).

50. This survey is limited to the regulations regarding the 'naamloze vennootschap' (probably best described in English as 'public limited company'; it is a limited liability company and was mainly introduced in Belgian legislation to attract public funds; nevertheless, most 'naamloze vennootschappen' were (and still are) controlled by rather limited shareholder groups; except for a number of larger companies, there certainly is no very liquid stock market). 'Private limited companies' (the 'personenvennootschap met beperkte aansprakelijkheid' (the present BVBA) were in Belgium only introduced by the Law of July 9, 1935. Before this law, the company structures recognized by the Belgian legislation were the 'vennootschap onder firma' (partnership firm), the 'gewone commanditaire vennootschap' (ordinary limited partnership), the 'naamloze vennootschap' (public limited company) and the 'commanditaire vennootschap op aandelen' (limited partnership on shares), the 'coöperatieve vennootschap' (cooperative firm) and the 'kredietvereniging' (credit union) (J. SERVAIS, E. MECHELYNCK, P. SERVAIS, R. RUTTIENS, J. BLONDIAUX, *Les codes et les lois spéciales les plus usuelles en vigueur en Belgique*, Bruxelles, 1944, p. 510).

values), with a summary of the obligations of the company and of the directors, administrators and auditors towards the company.⁵¹ These regulations were extended to the other limited companies.⁵² The law does not prescribe the form of the inventory: as inventory, "tout compte rendu, tout relevé de marchandises ayant pour objet de faire connaître la situation d'une société" was acceptable.⁵³

According to the same article, the administrators had to make each year a balance sheet and profit and loss account, allowing for the necessary depreciation.⁵⁴ The Law of December 26, 1881 introduced a number of legal sanctions in Company Law in case of making out false balances.⁵⁵ The law of May 25, 1913, included sanctions for the administrators who did not publish the financial statements of their company.⁵⁶ There were no legal prescriptions regarding the balance sheets of unlimited companies ('personenvennootschappen'): the rules apply only to limited companies ('kapitaalvennootschappen'). Balance sheets were made up based on a scheme distinguishing fixed and realizable assets and debts owed to itself and owed to third parties (bonds, guaranteed debts and debts without guarantee). The profit and loss

51. A. FRANCOIS, *Inventaires et bilans dans les sociétés par actions. Guide pratique à l'usage des administrateurs, commissaires, directeurs, actionnaires, obligataires, créanciers de sociétés*, Gand, 1907, p. 2.

52. J. CARDIN, F.R. VANES, *De hervorming van de wetgeving op de boekhouding der ondernemingen*, Leuven, 1949, p. 11.

53. J. SERVAIS, E. MECHELYNCK, P. SERVAIS, R. RUTTIENS, J. BLONDIAUX, *Les codes et les lois spéciales les plus usuelles en vigueur en Belgique*, Bruxelles, 1944, p. 522.

54. J. CARDIN, F.R. VANES, *Algemene theorie van het boekhouden*, Leuven, 1964, p. 39.

55. On the understanding that 'Le législateur a pris soin d'édicter une loi sur les faux bilans, mais il a oublié d'expliquer quand un bilan était faux et quand il ne l'était pas (...)' (M. FRANCOIS, *Principes de comptabilité des sociétés par actions* ..., 1901, p. IV-V).

56. L. MAHIEU, 'Le délit de non-publication des annexes du bilan', dans: *Revue Pratique des sociétés civiles et commerciales*, 1923, n° 2493 (pp. 75-87). In the first half of the 19th century, companies were not really obliged to publish their financial statements, since the ministerial directive of February 20, 1841 did not include penal sanctions in case of non publication (see J. LAUREYSSENS, *De Naamloze Vennootschappen en de ontwikkeling van het Kapitalisme in België (1819-1850)*, Ghent, 1970, part 1, p. X).

account was considered an annexe, without legally defined contents.⁵⁷ The lack of a prescribed minimum contents resulted in “qu’un bilan donne rarement la situation vraie et les résultats exacts d’une entreprise et pêche souvent par défaut d’exactitude et de sincérité”.⁵⁸ In the period 1905-1913, there were some unsuccessful attempts to impose a

57. C. VAN REEPINGHEN, P. REYNTENS, A. RAUCQ, *Formulaire annoté de Procédure Commerciale. Tome 1: Les Sociétés Commerciales*, Bruxelles, 1952, p. 328-332. This led to a practice which was apparently quite widespread: a rather detailed p/l account was made up internally, while afterwards, the general meeting received and approved a concise statement, often only including one line on each side, after which it was published, a method that was acceptable for the contemporary legislation (C. LAMBERT, ‘La publication du compte des profits et pertes, dans: *La vie au bureau*, XIII, 1934, pp. 477-478).

58. J. CHAVENEAU, *Les bilans au point de vue commercial, industriel et fiscal*, Paris, 1922, p. V. On p. 7 the autor indicates that “En théorie, le bilan devrait permettre de juger une entreprise. En fait, il n’est possible, au seul vu du bilan, ni de juger une affaire en connaissance de cause, ni de la comparer avec certitude à une affaire analogue, ni même de la comparer à elle-même dans le passé”. Also the Belgian legislator was aware of the problem: the reporter on the 1939 bill already mentioned said: “Un bilan, dressé en empruntant ce schéma sommaire, ne procure guère d’éclaircissements aux actionnaires et aux tiers. L’expérience a révélé, d’autre part, l’impossibilité d’imposer l’adoption d’un cadre détaillé applicable à toutes les entreprises. (...) Une division trop accentuée du bilan pourrait d’ailleurs être dangereuse pour le secret des affaires.” (*Parlementaire Stukken, Kamer, Buitengewone zitting 1939, 8 juni 1939, n° 102, p. 14*). The bill proposed a somewhat more detailed balance sheet, including at least 10 items on the asset side and 6 on the liability side. The lack of rules lead eventually also to problems admitted by industry itself. An example can be given regarding the undefined character of ‘necessary amortization’. At the end of the 1930s e.g., an official commission (Tschoffen-Yemaux) studied the problems of the coalmining industry and gave a lot of attention to the amortization that was required in this industry. In a comment on the report of this commission, the Fédération des Associations Charbonnières de Belgique, admitted that ‘en de nombreux cas, les bilans des exploitations minières sont établis, pour faire apparaître un bénéfice ou diminuer la perte, sans qu’il soit tenu suffisamment compte des amortissements et des réserves nécessaires pour maintenir l’équipement à la hauteur des progrès de la technique’. (R.A.B., *Archief Kempense Steenkoolmijnen, Waterschei (A. Dumont), pak n° 73, ‘Directiearchief. 1210. Solidariteitsfonds. Boekhouding (1940-1948)’*, ‘Fédéchar, Note à Monsieur le Ministre des Finances relative aux amortissements dans les charbonnages belges’, 25 avril 1940, 6 p.).

more detailed balance sheet.⁵⁹ The main argument against these attempts was that they would weaken the position of the companies and would impose too much constraints regarding the management;⁶⁰ the supporters of a more strict regulation referred to the interest of the small saver and continued their pursuit, referring not only to the Belgian situation, but also to the French, where more or less the same situation existed and where in 1921 a bill was introduced to regulate the financial statements of limited companies.⁶¹

De Laveleye stresses that many companies simply replace the p/l account by the profit appropriation.⁶² Like some other commentators, De Laveleye favors a p/l account that would include the essential items that allow for an assessment of the company. He sums up what a complete profit and loss account of an industrial company should consist of:

a) on the creditor side:

- profit brought forward from previous year
- sales for this year
- profit on non sold stocks
- profit on stocks of raw materials and supplies
- discounts received on raw materials
- interests received, exchange gains and commissions

59. C. VAN REEPINGHEN, P. REYNTENS, A. RAUCQ, *Formulaire annoté de Procédure Commerciale. Tome 1: Les Sociétés Commerciales*, Bruxelles, 1952, p. 328. Also in 1939, a law was proposed regarding the limited companies, that would have led to more informative financial statements, without going as far as imposing a detailed balance sheet; the balance sheet should include however at least 10 asset items and 6 liability items. It never became a law. ('La réforme des sociétés anonymes', dans: *La vie au bureau*, juillet-août 1939, pp. 459-462).

60. This attitude was rather prevalent in the first years of the century, not only in Belgium but also in France. See e.g. G. DE LAVELEYE, 'Une loi sur les bilans et inventaires', dans: *Moniteur des Intérêts Matériels*, LIII, 56, 12 juillet 1903, p. 2065. But also at the end of the thirties, a strict regulation was rejected by a majority within the accounting and legal professions (see e.g. J.J. CRETEN, 'La publication du Bilan et compte Pertes et Profits dans les Sociétés Anonymes', dans: *La vie au bureau*, 1939, mai, pp. 323-326).

61. F. PARIDANT, 'L'établissement du bilan et le contrôle intérieur de la comptabilité dans les sociétés par actions', dans: *Revue Pratique des sociétés civiles et commerciales*, 1922, n° 2432, p. 93.

62. G. DE LAVELEYE, 'Questions de bilan; compte de profits et pertes', dans: *Revue pratique des sociétés civiles et commerciales*, 1889, n° 68, pp. 391-400.

- profits on sales of securities
- etc.
- b) on the debtor side:
 - losses brought forward from previous year
 - purchases of raw material
 - wages paid
 - general production costs
 - losses in value of non sold stock
 - losses on stocks of supplies and raw materials
 - commissions paid
 - discounts given
 - discounts given because of untimely delivery or quality problems
 - losses on debtors
 - general administrative costs
 - intrests and commissions paid to banks
 - depreciation and losses in value

De Laveleye states that such p/l accounts are not published. The data are grouped together and only total amounts for the different sections are published. The author is actually against a far going detailing of the *published* p/l account since this would mean 'trahir les secrets de la société' and because he thought that nobody had an interest in such a publication. The same applies in his view to the balance sheet: the legislator meant the balance sheet to be a summary of the inventory, and so a balance sheet consisting of five lines and a profit and loss account consisting of three lines was in accordance with the law. Even limited financial statements give enough information to third parties. De Laveleye favours the provision of the following data: fixed and realisable assets, debts owed to itself, long term debts, short term debts and net profit; total revenue, total charges and profit appropriation. More information, he says, is superfluous.

Valuation rules were not included in the legislation. Generally, assets were valued at purchase price; securities were valued at nominal value, with a reserve on the liability side for doubtful amounts.⁶³ Valuation of fixed assets based on present value instead of historical

63. A. FRANCOIS, *Inventaires et bilans dans les sociétés par actions. Guide pratique à l'usage des administrateurs, commissaires, directeurs, actionnaires, obligataires, créanciers de sociétés*, Gand, 1907, p. 11-19.

cost was rejected because it would include non realised results. François states that stock should be valued at unit cost, although he admits that this was an item under discussion.

Each year, at least 5 % of profits had to be retained until 10 % of the capital was reached. A month before the general meeting, the administrators had to hand over to the auditors a report on the activities of the company, with balance sheet and profit and loss account, and the necessary underlying documents.

Two weeks before the general meeting, the shareholders could take note of the balance sheet, profit and loss account, the list of securities in the portfolio, the list of shareholders that had not yet fully paid up their shares and the report of the auditors.

The financial statements had to be published in the annexes of the 'Belgisch Staatsblad', the official law gazette.⁶⁴

ARCHIVAL RESEARCH: AN OVERVIEW OF FINANCIAL ACCOUNTING SYSTEMS

The Société Générale system In this section attention will be given to the evidence relating to the accounting systems of the mines studied. An important issue is the influence of the rules of the Société Générale. Some of the mines studied were controlled by large holding companies or steel producers. The largest Belgian holding company was the Société Générale, whose activities in the coalmining industry were very significant. Bearing in mind the importance of the coal industry to the Société Générale, it is not surprising that this holding company developed general rules and procedures for the accounting and reporting practices of the companies it controlled. The chart of accounts it imposed to the coal mines under its control originated at the end of the 19th century. It was widely known and has been published in some textbooks. Moreover, it is reported to have been used in other industries as well.⁶⁵ In one of the textbooks studied, a reproduction of this

64. *Encyclopédie générale du Commerce et de l'Industrie*, Bruxelles, t. 1, s.d., p. 299.

65. 'Nota bestemd voor de heren leraren van de scholen voor boekhoudkundige wetenschappen van het land', unpublished paper, NCAB, May 1964, p. 10.

chart of accounts was included.⁶⁶ The rules of the Société Générale distinguished 12 main chapters of accounts:

- I. First establishment
- II. Preparatory works
- III. Drainage expenses
- IV. Extraction expenses
- V. Surface transport
- VI. General expenses
- VII. Coal
- VIII. Stocks
- IX. General workplaces
- X. Coal by-products
- XI. Particular accounts
- XII. Financial service

The main chapters are further broken down in a significant number of detailed accounts, resulting in a hierarchical account structure.

The scheme lists a lot of expense accounts. The only accounts which refer to the balance sheet are first establishment (including all fixed assets), coal, stocks, coal by-products, financial service, products of the workplaces which are not yet transferred to the departments they are intended for, and the particular accounts. All other items should normally be charged to unit cost. Sales were registered on the creditor side of the coal account, whereas expenses were transferred to its debtor side; taking into account closing stock, profit or losses were then transferred to the profit and loss account.

66. C. LAMBERT, *Comptabilité et organisation administrative dans l'industrie*, 11e éd, Bruxelles, s.d., p. 412-424. The chart of accounts was only one aspect of the management of coal mines the Société Générale had prescriptions on. The André Dumont coal mine archives contain an index of instructions, including references to two documents containing rules imposed by the Société Générale, dated 1925 and 1926. (R.A.B., Archief Kempense Steenkoolmijnen, Waterschei (A. Dumont), pak n° 55, 'Répertoire d'ordres de service et mémos', Ordre de service 8 et 5). One of them, 'Ordre de service 5' dated November 27, 1925, could be consulted; it provides detailed information on the division of tasks within the coal mine 'suivant l'usage établi dans les charbonnages patronnés par la Société Générale de Belgique' (R.A.B., Archief Kempense Steenkoolmijnen, Waterschei (A. Dumont), pak n° 56, Memo's 52, 'Ordre de service 5'); the other document referred to was not found.

This scheme had a very great influence on all mine accounting in Belgium. Some items of this scheme could be found in most of the collieries studied. The rules of the Société Générale were also at the basis of one of the earliest Belgian works on industrial accounting, i.e. the 'Traité pratique de comptabilité industrielle' of Ansotte and Defrise, of which the third edition was published in 1910.⁶⁷

On p. 36, Ansotte and Defrise state that the Société Générale used a system with a central book and a quite large number of auxiliary books:

"Dans tout charbonnage on fait usage de livres auxiliaires assez nombreux. Ce sont de simples mains-courantes dans lesquels on écrit les opérations à mesure qu'elles se présentent. Ils sont tenus par des employés spéciaux qui remettent au comptable, chaque semaine ou chaque mois, un état récapitulatif pour chacune des espèces d'opérations traitées et devant fournir un seul article au Journal: Ventes de charbons, Ventes de cokes, Entrées des magasins, Sorties des Magasins, etc."

In their case-study, they include a cash book, a copy book for bills, end-of-the-month schedules and a book for non-classified items. The three basic books are the journal, the general ledger (general accounts) and the ledger for personal accounts (clients and suppliers). Non-classified transactions are immediately entered in the journal, whereas all other transactions are entered at the end of the month. Alternatives are the registration of sales, purchases, cash movements etc. on a weekly basis, or the registration of all items at the end of the month. The journal should contain 12 columns, detailing the number of the entry, its reference to the general ledger, the numbers of the debtor or creditor chapter, the name of the account and contra-account(s), partial and total amounts, and the reference to the ledger for clients and suppliers. At the end of each month, all figures are added. In a draft, the accountant wrote down all entries, where upon another employé, the 'teneur des livres', who was selected because of his handwriting style, transferred them to the journal.

To come to the final financial statements, Ansotte and Defrise state on p. 92 that the profit and loss account should be debited for the losses or credited for the profits on the coal account. Apparently, they didn't transfer results at the end of each month, but only at the end of

67. C. ANSOTTE, A. DEFRISE, *Traité pratique de comptabilité industrielle*, Dour, 1910, 272 p.

the year. Their method of dealing with the remaining stock is quite curious:

“Pour évaluer ces profits ou ces pertes, il suffit de supposer vendus à Balance de Sortie les charbons en magasin à un prix inférieur au prix de vente.”

A note is included to this:

“On peut prendre les 2/3 du prix de vente en temps normal, c'est-à-dire quand il n'y a aucune baisse ni hausse à prévoir. On sait que le charbon emmagasiné pendant un certain temps perd beaucoup de sa valeur.”

So apparently the valuation of coal stock is not related to the actual cost price, but based on an arbitrarily chosen reduction of selling price. Other valuation principles are very concise: on p. 75, the authors mention that for the establishment of the annual inventory, the valuations

“doivent être conformes à la valeur exacte des choses; on doit tenir compte de la plus-value et de la moins-value et passer les écritures nécessaires pour régulariser la situation dans les livres”.

Accounting books in the Liège coalmine It is doubtful whether the system proposed by Ansotte and Defrise was very widespread in the Liège area. I did not find any journals at all who used exactly the same layout. Information on which auxiliary books were kept, is often missing, so the answer to this question remains open. The elaboration of monthly lists of total debits and credits might also not have been a current practice; at least, it is not possible to draw any definite conclusions as to this on the basis of the sources which were analyzed for this paper.

Information on the financial accounting systems was rather variable. Although generally only a few books were preserved, references found in those books allowed us for some mines to obtain an image of the system as a whole. These references suggest that an elaborate system with subsidiary ledgers and auxiliary books was used in at least part of the mines studied. Other sources state that such a system was regular practice in all the collieries controlled by the Société Générale. In some independent mines, no indications were found that other books than a general ledger or journal were used.

For all mines where we had information on the financial accounting system some central books (journals or ledgers) were preserved. For

some mines these books centralized accounting entries once or twice a month. It is clear that in these collieries, additional books must have existed. For other mines we do not have this information: the only books which were preserved give daily entries, making it uncertain whether other books were used.

Elaborate systems with auxiliary books and subsidiary ledgers were found in the Société Générale system, Horloz, Gosson/La Haye/Horloz and Minerie. This does not mean that the other mines actually had a more simple system: it only means that such books, if they existed, were not preserved. It is e.g. quite improbable that the Bois d'Avroy coalmine, controlled by the Société Générale, only kept a central journal and a general ledger.

In all more complex systems, having separate sales and cash journals seems to have been general practice. The Horloz system seems even more elaborate than the one prescribed by the Société Générale: an industrial journal was not mentioned by Ansotte and Defrise.

In all the collieries included here, the central accounting book during the whole period studied seems to have been the general ledger. These ledgers recorded generally for all 'general accounts' or 'account chapters' the transactions that took place on a monthly basis. The structure of the ledger varied from one company to another. In some mines both account names and entries were handwritten, whereas in other cases a preprinted multi-column structure was used. Some of the handwritten general ledgers also included the individual customer and supplier accounts. Generally the degree of detail of the information is much larger in the preprinted ledgers, since general accounts are there broken down into subaccounts. In most cases such a structure also favoured consistency, although the example of the Horloz general ledger should warn us against generalization. The preprinted structure was prescribed by the Société Générale for the coalmines under its control but was applied by a much larger number of mines. One of the main features of the preprinted structure was that it also contained rather detailed information on expenses, making possible a certain integration of cost and financial accounting or at least an involvement of the accounting department in cost accounting.

Except for the very simple systems which registered entries in only one book, general practice might have been as follows. Accounting information was gathered from diverging sources such as data on labour and wages, taxes, social charges, stock and inventory taking, production, sales, purchases, bank accounts and cash. Some of this information was recorded in auxiliary books or subsidiary ledgers.

Information was entered there on a daily basis. In some mines, these data were first transferred to a (general) journal and once or twice during each month to a general ledger and to ledgers with the individual customer and supplier accounts (unless these were included in the general ledger). The journal is build up chronologically whereas the ledger gives summarizing entries for each account. Entries in the journal could be registered on a daily basis (e.g. in Horloz) or only once or twice a month (as in the Ansotte and Defrise example).

Accounts used A comparison was also made of the main accounts which were used in the coalmines studied. In broad lines, these were quite comparable, which should not surprise since all companies were active in the same industry. The system which was proposed by the Société Générale was apparently rather widespread. In the coalmines under its direct control (Bois d'Avroy) it was used without any changes. Also in independent mines a similar system was used. Major differences were found on the second level, the accounts which were included in each chapter or general account. Here the variability becomes rather large although we can distinguish two major groups of companies.

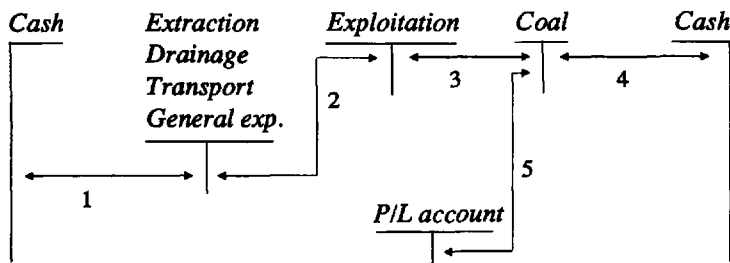
On the one hand those companies which use a preprinted general ledger generally detail their general accounts in a number of subaccounts with a rather stable structure. They distinguish e.g. several types of consumables (supplies stock chapter) or wages, supplies, power consumption etc. (for the expenses chapters). Here the Société Générale scheme played an important role. There are of course notable exceptions, e.g. Horloz where for fixed assets, specific accounts were opened for each major work which was started. But generally the structure of chapters and subaccounts remained rather stable and comparable from one company to another.

On the other hand there are the coalmines which use ledgers which are completely handwritten, such as Gosson – Lagasse. In these ledgers the general accounts are not further detailed. No hierarchical structure of accounts is introduced. In such systems accounting information is less detailed and often less consistent, although we should not overestimate the consistency of preprinted structures, as the ledger of Horloz shows us. We should also have in mind that the actual contents of certain accounts might change in the course of time or that certain columns in the preprinted books might be used for the registration of other data than those they were intended for. Moreover, the use of a similar chart of accounts still allowed very varying accounting practices. Concerning asset capitalization practices e.g. one can find very

diverging practices, such as charging new purchases of fixed assets to unit cost, or to revenue at year end, or capitalize them (possibly only partially) and register depreciation via the profit and loss account.

In none of the companies studied, a decimal classification of the accounts was used. The chart of general accounts was rather comparable from one company to another. Fixed assets, different kinds of exploitation expenses, stocks of coal and supplies, financial service (cash or banks) and general expenses were generally registered separately, while equity and liabilities accounts were in most collieries included in one general chapter, 'particular accounts'. Common practice seems to have been a separate registration of production and general expenses. Production expenses were in the mines with a more elaborate system broken down into preparatory works, drainage, extraction, transport and workplaces.

The preprinted ledgers give more details on what these general accounts consist of, while the handwritten ledgers use more accounts instead of the mentioned general accounts, although not always very consistent. The central account in most collieries was the 'General coal account'. This account often recorded on its debtor side stock and expenses, on its creditor side sales. The balance (which is the profit or loss) was transferred to the profit and loss account. There were differences between the companies studied. Some registered profits on an 'exploitation account', transfers of coal to the coal account being valued at selling price. In some cases, profit transfer happened on a monthly basis, in others only at the end of the year. The following scheme summarizes general practice:



1. Registration of expenses
2. Transfer of expenses to exploitation (not always used)
3. Transfer of expenses to coal account
4. Registration of sales
5. Transfer of profit

The degree of detail differed from one company to another: some only had one account for all exploitation expenses, others registered these cost types separately (drainage, extraction, transport, etc.) and charged them or to a general exploitation account, or directly to the coal account. In one mine, a temporary account for the registration of sales was used.

While in a number of mines new accounts were created throughout the period where data were available and old ones closed, it is quite remarkable that in most of these collieries the financial accounting system itself remains virtually unchanged. Companies that used a handwritten ledger kept on using this system while in a lot of those with a preprinted structure, the structure itself only rarely changed (a major exception being Horloz). As far as information was available, changes in the ownership of the companies did not seem to have led to changes. This is the more strange since the period studied is a period with important changes in the economic environment, that knew two major military conflicts and (especially between these world wars) an enormous monetary instability. A. Loft reports that the First World War was in the United Kingdom a period in which interest in accounting increased and led to growing government intervention in (mainly cost) accounting.⁶⁸ In Belgium, we never had such an impetus for change. During both wars, this country was occupied and no war-time economy developed; in fact, a lot of industries gradually stopped their activities.⁶⁹ One could have expected that the German occupant would have imposed accounting rules, especially if one has in mind the development of German accounting. During the 1930s and the Second World War, accounting was in Germany strictly regulated. These regulations not only affected the chart of accounts but also the elaboration of exploitation sheets and unit cost calculation.⁷⁰ I found no indications that the German occupant interfered directly in the financial accounting systems of the companies: there were no structural changes in the ledgers or in other account books. The Germans apparently regulated sales by creating their own selling agencies (such as the Kohlenzentra-

68. A. LOFT, *Understanding accounting in its social and historical context. The case of cost accounting in Britain, 1914-1925*, New York/London, 1988.

69. F. BAUDHUIN, F., *Belgique 1900-1960. Explication économique de notre temps*, Louvain/Héverlé, 1961, pp. 80 f.f. and pp. 185 f.f.

70. R. BASTIN, F. SPILLEMAEKERS, G. DENHAENE, *Etude d'un plan comptable unifié*, Bruxelles, 1944, pp. 79-169.

le) and by imposing selling prices; a lot of the coal produced was requisited. As the A. Dumont annual statements illustrate, general meetings were sometimes forbidden and as a consequence financial statements were not always made. The Germans required specific financial reports. However, there is no evidence of intervention in the traditional process of creating accounting information. The apparent lasting autonomy of accounting practices should however not lead us to consider the figures that were reported as trustworthy: colliery management was probably aware of the possibility that the occupant might control the accounts, and therefore, other than accounting conventions might have provided the rationale for the figures that were actually found.

This brings us to a general problem. Although accounting systems seem to have been rather stable, the figures are often extremely difficult to interpret. The main reason is that we do not have information on valuation rules. Significant examples of the problems that this creates, are asset capitalization, valuation of stock (both coal and supplies) and valuation of securities. Asset capitalization policies differed enormously from one company to another. To make the image still more confusing companies also changed their policy over time. For the valuation of coal stock, some general principle apparently said that this had to be valued at selling price. In some cases, including the old textbook of Ansotte and Defrise, the information that was found explicitly denied that this actually happened. Since different coal qualities were produced, with a different selling price, and since the quantity of these qualities was not reported, it often turned out to be impossible to know which valuation basis was used. Coal stocked lost rather rapidly part of its value; once again, no information was available to assess the influence of these decreases. By valuing coal at a lower value, secret reserves were created. The same resulted from charging all fixed assets to revenue. For securities, the valuation basis was also unclear: in some mines, the stock exchange rate was used, in others, valuation was clearly lower. These examples illustrate that the interpretation of the reported figures, 40 to 90 years after the facts, quite often turned out to be a perilous undertaking.

ARCHIVAL RESEARCH: FINANCIAL STATEMENTS

I shall not try to give here a survey of the evolution of the financial statement structure of the companies, mainly because this structure turned out to be quite variable in time: for most companies, several

schemes should be included, and this would create a rather inconvenient schedule. Therefore, I shall limit this part to a few general remarks and give some examples afterwards.

We can distinguish three types of financial statements. First, there is the detailed, handwritten statement, that was probably directly based on the accounting books. This statement was probably not available for the shareholders, but served as an aid to management for the preparation of the general meeting. In some companies, it took the form of a real balance sheet and profit and loss account, in others, it consisted of a list of debits and credits and their balances, with or without comments. In some cases, there were no differences between handwritten and printed balance sheets. Apart from these statements, management generally also prepared a (handwritten) report on the performance and situation of the company.

The second type are the printed financial statements, that, together with the report of the Board of Administrators, were available for the shareholders. In some cases, they were identical to the first type, but generally, they are more concise, summarizing several accounts from the detailed balance sheet in one account. In a few cases, different valuation principles were found in both documents. The differences between handwritten and printed statements were often more important for the profit and loss accounts, that often had a different structure or in some companies, consisted of completely different items.

Finally, there are the balance sheets and profit and loss accounts that were published in the financial press, such as the *Recueil Financier*. These were sometimes identical to the one presented to the shareholders, but often, they were once more summarized. This is the information that was available to the general public. This last type of statements is not analyzed, mainly because, as a short preliminary survey carried out during the research indicated, they never included more information than the documents that were available in the archives, and because it is unclear who was responsible for additional summarizing: it is possible that the editors of the journals summarized statements themselves.

The description of the reporting practices, as they were found in the different collieries studied, learns that we can hardly speak of the evolution of financial reporting. Periods in which rather detailed information was available for the shareholders, alternated with periods in which information was reduced. We neither can say that there was a marked tendency to reduce externally available information (except

perhaps for the 1930s), because the differences between companies are very significant.

If there is a general image, we could perhaps summarize it as follows. Detailed balance sheets gave a more extensive breakdown of asset and liability accounts. The printed statements reduced this breakdown, and generally reported on the asset side fixed assets (broken down in a number of categories), coal and supplies stock, cash/banks and debtors, and on the liability side capital, other equity, and creditors. These accounts might be further detailed, while in a number of companies, part of them were entered pro memoria. For the profit and loss accounts, there generally was or a real profit and loss account, in most cases distinguishing 4 to 5 categories of expenses, and only one or two categories of revenue, or a profit and loss account that was no more than a profit appropriation scheme. For the profit and loss account, differences between detailed and printed version could be very important. The data in the statements could fluctuate very strongly, because in most companies, significant changes in accounting policy were recorded during the period studied.

Also for the annual reports, diverging practices were found. Sometimes rather detailed information was given, in other cases, they turned out to be very concise. A rather constant feature is that important changes in accounting policy, with far going consequences for the figures entered in the statements, were not explained in the reports. It is unclear how shareholders that were not involved in the day-to-day management of the company, were able to assess the evolution of their firm.

The consequences of this reporting pattern are quite significant. In some companies, such as Horloz, shareholders must have had a rather 'good' view of the situation of the firm. In others, such a view was limited to those represented in the Board of Administrators, since the printed statements very strongly reduced the information that was available.

It is unclear how important these reports actually were (except for taxation purposes). In most of the companies studied here, shares were in the hands of rather small groups of shareholders, in most cases or local families, or large financial or industrial groups. Most of them were represented within the Board of Administrators, whereas the holdings and industrial companies were also heavily involved in the management of the coalmines they controlled. For these shareholders, the annual statements were probably less important. Companies in this period tried to limit the information that was available to third parties

as much as possible, mainly because of competition. Therefore, it is not surprising that the printed documents often did not give too much information.

It will become clear from this section that the usefulness for historical research of financial statements that were made available for the general public, is often rather limited. The main problems are that the statements are very condensed and that accounting practices were very variable, both in space and time. As an example, in some cases, fixed assets were capitalized and share capital was given a value; in other cases, fixed assets were mentioned pro memoria while share capital was given a value. In still other companies, both fixed assets and capital were mentioned pro memoria. Some companies switched over from one practice to another. It is clear that such a situation creates serious problems for historical enquiry, especially for those studies that use data on several firms.

EXAMPLES

Interpretation of the financial statements is made difficult because of changing valuation methods and changing formats. This is highlighted in a number of examples.

Example 1: Gosson Lagasse Printed reports for the shareholders, containing the annual report and the financial statements are preserved for the period 1900-1930 (AEL, Entreprises, Gosson, 11-40). At the start of the century, the balance sheet was structured as follows.

- Assets
 - Coal stock
 - Supplies stock
 - Cash
 - Portfolio
 - Debtors
 - Bank

- Liabilities
 - Capital (p.m.)
 - Reserve fund
 - Provision fund
 - Wages to be paid
 - Creditors
 - Capital interests

Matured dividends
Transfer of previous year
Profit

- Profit and loss account
 - Exploitation profit
 - + Capital interests
 - + Transfer of previous year
 - purchase charges and maintenance
 - compensation for impairments
 - depreciation first establishment
 - taxes and contributions
 - social charges
-

net profit

Two striking features of the balance sheet are 1/that fixed assets are not capitalized and 2/there is a separate coal stock account. Fixed assets are apparently completely written off in the year of acquisition. At the liability side, this is partly balanced by the entry of capital p.m. It is clear that such a balance sheet gives no information on the value of the company as such since large secret reserves are created and profit is reduced in years with significant acquisitions of fixed assets. The profit and loss account takes a somewhat unusual form, but is more informative than in many others companies.

The structure of both remains unchanged until 1911. In the report over 1912, profits are split up between coal and briquettes, and on the liability side there is a provision fund for planned new investments. These provisions are regularly decreased. The profit and loss account changes again in 1914: on its creditor side, we find gross profit for the year, capital interests (public funds and banks), amount on account 'Provisions for new installations' deferred from 1913 (equal to depreciation) and deferred profit from 1913; on its debtor side written off first establishment charges (via account 'Provisions for new installations' deferred from 1913, or via results of the current year), social charges, allowances for contingency fund, taxes and contributions and balance to defer. In the report on 1918, gross profit is replaced by value of coal and briquettes. In this year, the cost side of the p/l account is more detailed, including wages, social charges, general costs and contributions, consumption and supplies, first establishment charges (via provision account and via results current year), depreciation of public funds, pensions, mine taxes and profit appropriation.

A major accounting change took place in 1925, since from that year onward fixed assets were brought on the balance sheet. The balance sheet includes an about one million BEF 'First establishment' account, including new investments for 1925. On the liability side, capital is brought on the balance sheet for 5 760 000 BEF, the result of an increase of capital in 1925; the capital existing before remains mentioned p.m. Amortization of first establishment in the p/l account remains limited to a partial decrease of the provision account;⁷¹ the remainder of the provision account is entered in the p/l account as income, in this way reducing the losses for 1925. The next year, we find on the balance sheet a chapter 'Total fixed assets', including the concession p.m. In the profit and loss account, costs are split up between exploitation costs and costs regarding the briquettes factory.

Example 2: Horloz For the S.A. des Charbonnages du Horloz, there are several documents preserved for the first quarter of the century regarding management reporting to the general meeting. A first series includes preparatory documents and reports or minutes (AEL, Entreprises, Gosson, 84-113). For each year, they generally contain a preprinted detailed balance sheet (figures are handwritten) and a handwritten profit and loss account. The schedule also contains cash and portfolio situation, general costs (13 items), and stock movement. The balance sheet structure at the start of the century was as follows:

Assets

Fixed assets

- First establishment: Horloz
- First establishment: Tilleur
- Cokes ovens and mechanical preparation
- Diverse buildings

71. The minutes of the shareholders meeting give more information on this topic: "(...) les dépenses de premier établissement, faits au cours de l'année 1925 s'élèvent à 1 359 702,83 frs. Elles figurent à l'art. 7 du bilan pour 1 009 702,83 frs. La différence soit 350 000 frs a été amorti par prélèvement de cette somme sur le Fonds de Prévision pour installations nouvelles' (AEL, Entreprises, Gosson, 310).

Current assets

- Factory supplies
- General coal account
- Cokes production
- Shares and diverse values
- Diverse debtors
- Banks (6 banks separately)
- Public funds
- Financial service
- Interest in S.A. Maisons Ouvrières Sud de Liège

Liabilities

- Share capital
- Reserve fund
- 'Caisse de secours et de prévision' (social charges)
- 'Caisse extraordinaire de secours' (social charges)
- Divers creditors
- Wages
- Interests and taxes to be paid
- S.A. Maisons Ouvrières Sud de Liège
- Income from Braconnier property
- Account new installations
- Provision account
- General cost – creditor balance
- Rent of workers' houses
- Rent of terrains and buildings
- First establishment
- Dividends to be paid
- Profit and losses

The capital is mentioned p.m., as are the fixed assets; only 'Divers buildings' are capitalized. The schedule includes comparative data on the previous year, and the difference with the figures for this year. This schedule (that includes income accounts) was later condensed to the financial statements that were published. If one compares the figures in both sets of documents (internal/official) and adds or subtracts a number of them, one can come to the following conclusions (data are 1916-17 figures).

The accounts 'Capital', 'Fonds de réserves', 'Prévision pour installations nouvelles', 'Dividendes dus' and 'Profits et pertes' are reported in the summarized balance sheet in the same way as in the internal docu-

ment. The internally used accounts 'Compte de prévision', 'Caisse de prévision', 'Frais généraux - réserve', 'Prévision pour accidents', 'Rentes à payer - capitalisation' and 'Compte de prévoyance' are all summarized in the account 'Prévision pour pensions, réparations d'accidents etc.'. So this summary account includes quite diverging items, most of them related to social charges, with one important exception, the general costs - 'reserve' account. The remaining accounts 'Créditeurs court terme + long terme', 'Prévision fiscale' and 'Réserve pour amortissement' are summarized as 'Créditeurs divers', giving this account a very wide contents. One can wonder why amortization reserves were not treated as other reserves.

The asset side of the balance sheet includes the following identical accounts: 'Premier établissement', 'Magasins d'approvisionnement', 'Magasins charbon' and 'Service financier', the latter only including central cash and cash at pits. The accounts 'Fonds publics' and 'Actions et valeurs diverses' are summarized in the 'Portefeuille, fonds publics, participations oeuvres' account. The list of participations p.m. (Horloz, Basse Ransy and Fours à Coke) in the summary statements, is not found in the other document. All remaining accounts in the extensive schedule are included in one account, named 'Débiteurs divers'; it includes 'Banquiers débiteurs' (a detailed account, giving figures on 7 banks), 'Débiteurs' (long and short term), 'S.A. des Maisons Ouvrières du Sud de Liège', 'Ouvroir' and 3 accounts that were not used ('Entretien du matériel - insuffisance de dotation', 'Frais généraux - insuffisance de dotation', 'Secours et charges légales - insuffisance de dotation').

The profit figure on the liability side of the balance sheet equals the sum of the profit brought forward from last year (20 000 BEF) and the 'Intérêts et rentrées' account. According to the internal p/l account, the latter consists mainly of financial results (dividends received on previous years, bank and other interests, rebate of another coalmine and net rent of buildings) for a total figure of 200 896 BEF.

At the start of this century, the profit and loss account had the following structure:

Profit on General Coal Account (following exploitation schedules)

- + Discounts and allowances on coal bought
- Transfer of credit balance of 'Caisse de secours'
- Transfer of part of the credit bal. of 'General Costs'
- Transfer of profit on equipment, railroad ...

- Transfer of profit on factory supplies
 - Amortization of charges for first establishment Entitlements
-

Net profit on General coal account
+ profit on cokes

Total industrial profit

- + Balance previous year
 - Interests received (banks)
 - Interests received (interest in Maisons ouvrières)
 - Dividends received
 - Results on public funds
 - Transfer of dividends previous year
 - Bonuses Syndicat des Charbonnages Liégeois
-

Profit figure in the balance sheet

For the profit and loss account, there was also a difference between internal and official structure. In 1917, the internal document still had a structure comparable to the one mentioned; the following 'official' structure was used:

Debtor

- Social Charges
 - Legal social charges
 - Contingency fund
 - Other social charges
- Dividends
- Profit to be carried forward

Creditor

- Industrial profit
- Interests and discounts
- Utilization of balance of Provision fund new investments

The official version reports an industrial profit of 364 352 BEF, whereas the internal document gives another calculation:

profit according to exploitation schedule:	390 733 BEF
+ profit ('boni') on supplies:	7 570 BEF
- amortization new installations:	(11 011)BEF
= net industrial profit:	387 292 BEF

To this net industrial profit, the internal document adds 'Intérêts et rentrées', giving a profit for the year of 588 189 BEF. To this is then added the profit brought forward from last year (20 000 BEF), and subtracted from it provisions for bonuses for board members and amortization on participations, to result in a credit balance of 220 896 BEF, the profit figure in the balance sheet (provisions and amortization equal net industrial profit, so 'financial results' and profit brought forward form the credit balance).

The figures subtracted in the internal document are not to be found in the official version: there we find on the debit side only social charges, amounting to 364 352 BEF (i.e. the figure reported in the same statement as industrial profit), on the credit side the profit brought forward, (20 000 BEF), industrial profit (364 352 BEF), 'Intérêts et rentrées' (200 896 BEF) and a withdrawal of the balance of the 'Prévision pour installations nouvelles' account (300 000 BEF). The official version results in a credit balance of 520 896 BEF (consisting of profit brought forward, 'financial results' and the withdrawal of the provision account), of which 450 000 BEF is paid out as dividend and 70 896 BEF is carried forward.

So in both documents, industrial results are balanced by expense accounts, while financial results and profit brought forward (and for the official document that includes profit appropriation, withdrawal of a reserve) are considered as available for appropriation. To make the image still more confused however, the tables added to the report on 1916-1917 give a total profit figure of 729 794 BEF (AEL, Entreprises, Gosson, 100).

Example 3: Abhooz et Bonne Foi Hareng There were significant changes in accounting policy which made the usefulness of the balance sheet to evaluate the evolution of the company rather limited, as might be illustrated by the following examples, based on the series of non-printed balance sheets (AEL, Entreprises, Abhooz, 110-147). Clearly, a lot of the changes that appear from this series of figures is purely a consequence of changing accounting practices, without implications in the 'real world'.

	1900	1901	1902	1908	1910	1917	1933
<i>1st establ.</i>	5.624.400	5.542.950	1.779.200	87.000	412.000	670.500	2.707.000
<i>coal</i>	60.416	22.693	32.437	80.943	106.634	28.904	3.210.095
<i>briquettes</i>	-	-	-	-	138	335	2.030
<i>factory supplies</i>	119.905	110.032	114.148	136.573	196.186	377.523	423.618
<i>comptes particul.</i>	212.421	372.805	865.084	702.237	107.601	2.073.366	3.057.161
<i>financial service</i>	112.649	148.963	40.112	354.176	340.356	350.368	1.690.067
<i>total assets</i>	6.129.792	6.197.444	2.830.982	1.360.930	1.162.917	3.500.999	11.089.972
<i>capital</i>	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
<i>remainder of equity</i>	468.115	468.115	500.115	691.565°	500.115	700.115	6.925.800**
<i>bonds</i>	1.885.000	1.712.500	1.611.500	7.692	-	1.500.000	2.500
<i>other liabilities</i>	452.558	292.709	279.367	288.944	487.800	571.471	2.715.412
<i>'balance'</i>	3.324.117	3.324.117	-	-	-	-	-
<i>p/l account</i>	-	400.000	440.000	372.726	175.000	729.411	1.446.257
<i>total liabilities</i>	6.129.792	6.197.444	2.830.982	1.360.930	1.162.917	3.500.999	11.089.972

° including 191 450 BEF Amortization fund for first establishment works.

** including 900 000 BEF Amortization fund for first establishment works and 2 525 800 BEF Provision fund for new investments.

In the report on 1900 that the Conseil d'Administration presented to the shareholders, we find a condensed balance sheet in which there is no 'balance' account on the liability side; the figure that we find in the previous series for the 'balance account' is now put on the 'fonds social' (i.e. share capital) account (AEL, Entreprises, Abhoos, 155).

Example A: Minerie Some of the problems regarding the interpretation of the figures in the statements on 1919/1920 can be explained by a document found in the balance sheet series (AEL, Entreprises, Minerie, 43). Apparently, the balance sheet structure changed in 1919/20: this series includes a balance sheet on 1919 based on the old structure, and one made up according to the new formula, the latter after correction on fixed assets and profit appropriation. Structure and figures are given below:

Old formula (after profit appropriation 1919)

ASSETS

1. FIXED ASSETS

Concession	740 000
Works in the concession	-
Buildings and land	60 000
Machines and briquette plant	71 017
Fixed equipment	17 000
Furniture	200
Service equipment	3 082
Cartage	970

2. TEMPORARY VALUE

Insurance fund	20 692
----------------	--------

3. CURRENT ASSETS

Coal and briquettes stock	234
Banks (debtors)	520 999
Cash	64 001
Divers debtors	219 108
Supplies stock	160 981

965 324

LIABILITIES

Share capital	1 056 000
Legal reserve	193 085
Dividends payable	12 158
Provision fund	89 786
Wages payabel	50 400
Contingency fund	1 294
Divers creditors	375 562
Amortization fund	100 000

Total 1 878 287

New formula (after profit appropriation 1919 and revaluation)

ASSETS

1. FIXED ASSETS

Concession	740 000
Works in the concession	114 000
Buildings and land	532 051

Machines and briquette plant	260 550	
Fixed equipment	60 045	
Furniture	5 000	
Service equipment	87 625	
Cartage	5 600	
2. TEMPORARY VALUE		
Insurance fund	20 692	
3. CURRENT ASSETS		
Coal and briquettes stock	234	
Banks (debtors)	520 999	
Cash	64 001	
Divers debtors	219 108	
Supplies stock	160 981	
		965 324
LIABILITIES		
Share capital	1 056 000	
Legal reserve	193 085	
Dividends payable	12 158	
Provision and reserve	1 102 387	
Wages payabel	50 400	
Contingency fund	1 294	
Divers creditors	375 562	
Total	2 790 887	

The main differences are the revaluation of fixed assets, including giving a value to 'works in the concessions'; the old 'amortization fund' is, together with the revaluation surplus, brought together in a 'reserve and provision fund'. This is detailed as follows:

36 024 BEF coming from the provision fund before the appropriation of 1919

53 762 BEF resulting from the provision fund's increase in 1919

100 000 BEF resulting from the amortization fund's increase in 1919

912 600 BEF because of the revaluation of fixed assets

All figures relating to the 1919 financial statements (before appropriation) could be found in the old structure scheme after appropriation. The relationship 1919-new structure after appropriation and 1920 before appropriation is however more troublesome. The fixed asset values remained equal, while the current assets were increased in 1920 with 46 %. Capital was valued in 1919 at 1 056 000 BEF, while in

1920, its worth was 2 112 000 BEF, so it doubled without issuing new shares. If we look more closely to the other figures, we find that the 'provision and reserve' account was decreased for the same amount, so we can conclude that these reserves (which are in fact mainly a revaluation surplus) are incorporated into capital.

Example 5: Bonne Espérance Batterie et iolette A major accounting change took place in 1919: the capital was only mentioned p.m. and a new account was included, called 'Balance d'actif' and consisting of the accounts 'Capital', 'Special provision fund' and 'Qualified creditors' (AEL, Entreprises, Batterie, 35). Probably, the entry of capital p.m. was a result of the decision to replace the existing shares by new ones without nominal value. The evolution of balance sheet and p/l account figures remains however extraordinary:

	1918	1919
<i>Assets</i>		
Land and buildings, concession	1946958	2219847
Furniture	20026	19972
Service equipment	803609	846032
Workplaces and implements	28711	71970
Railroad and equipment	352659	248203
Transport	107797	251013
Drainage	242514	242514
Extraction pits	1654562	1761412
General coal account	283540	123070
Factory supplies	986596	1454322
Divers debtors	1924023	4220664
Cash	56027	157067
Portfolio	0	5762
Total	8577027	11891584
<i>Liabilities</i>		
Shares	2000000	p.m.
Reserve fund	500000	500000
Special provision fund	2123108	-
Provision connection pit	50000	50000
Balance of assets	-	7800000
Divers creditors	3436086	1103076
Profit and losses	297833	2268778

If we take the 1918 figures, we find for the accounts composing the 'balance d'actif' account approx. 6 500 000 BEF (considering the difference between divers creditors last year – current year), leaving 1 300 000 BEF unexplained. The balance sheet gives a 5 762 BEF value for portfolio, where the list of shares in the portfolio gives a value of 96 510 BEF; a note says that this figure is included in the 'Diverse debtors' account. The profit figures are even more astonishing: with a production rising from 158 400 ton (sales and consumption) to 276 000 ton (i.e. + 75 %), exploitation revenue (as reported in the p/l account) increases from 6 843 193 BEF to 18 090 380 BEF (+ 165 %) and profit from 297 833 BEF to 2 268 778 BEF (+ 662 %). The ratio profit-total revenue increases from 4 to 12 %. All this is given without explanations in the report. It might be caused by the high coal prices we find for this year.

In 1920, the layout of the financial statements is changed again (AEL, Entreprises, Batterie, 36). This adaptation is motivated in the report:

“Les Immobilisations successives importantes que l'on a été amené à réaliser ont dicté à votre Conseil une politique constante d'amortissements, qui a reçu votre approbation. L'importance de ces amortissements était mesurée sur celle des Immobilisations. La conséquence de cette façon de procéder est que les sommes qui figurent dans nos écritures ainsi que dans nos Bilans qui en sont l'émanation et qui devraient être la représentation de la valeur de nos installations et de l'importance de nos charbonnages, ne sont nullement en rapport ni avec cette valeur, ni avec cette importance.

Votre Administration a été d'avis qu'il y avait un sérieux inconvénient à maintenir un bilan présentant un actif en aussi grande discordance avec l'importance et la valeur de vos charbonnages.

Elle a également considéré que, l'art. 6 des statuts stipulant que le capital est représenté par 4000 actions ne portant aucune imputation de valeur, il y avait lieu de ne plus faire figurer au Bilan la somme de deux millions qui était censée représenter le capital de la Société, cette somme ayant probablement été imposée, à l'origine de la Société, pour les besoins de la comptabilité. Votre Administration estime, par dessus tout, qu'il importe et qu'il est de saine politique que le Bilan qui vous est présenté soit en harmonie avec l'esprit et la lettre des Statuts et qu'il accuse une situation en concordance avec l'importance de la Société, la valeur réelle de vos charbonnages et de leurs installations.

Suivant cet ordre d'idées, elle a décidé de procéder, sans retard, à une nouvelle estimation de l'actif immobilisé. Mais considérant, d'un autre côté, que depuis la constitution de votre Société d'importants progrès

ont été réalisés dans l'industrie charbonnière, ayant entraîné la transformation de certains services et la création de services nouveaux, votre Administration a été amenée à procéder, non seulement à une estimation complète de l'actif immobilisé, mais également à une refonte totale des différents postes qui le composent. Ces postes furent ensuite classés suivant un ordre nouveau mieux en rapport avec les services complémentaires qui correspondent à des installations nouvelles marquant les progrès réalisés dans l'industrie charbonnière. (...)

Cette nouvelle répartition des immobilisations ayant été arrêtée, il a été procédé à un inventaire minutieux et sévère, excessivement détaillé des différents postes, dont elles sont composées, en s'entourant de tous les renseignements pouvant présenter un caractère d'utilité et de contrôle et en se basant sur les cours obtenues, il a été appliqué des réductions ou amortissements rationnels.

L'estimation sur la base des cours actuels n'a pas été envisagée, vu l'exagération de ces cours et leur grande instabilité."

Important is the reference that is made to the adaptation of the balance sheet to have it reflect the real value of the company.

The revaluation affected mainly the 'extraction pits' account. The following ratios could be computed:

- total assets increased * 1.91
- concession disappears from the balance sheet; the new 'immeubles' account (buildings and land) is 1.16 times the old 'immeubles et concession';
- furniture: * 1.23;
- 'materiel de service' and railroad are brought together: * 0.83; there is a separate account for railway stations and equipment; if we add this figure to the previous one, we have a ratio * 1.29;
- workplaces: * 1.03;
- transport: * 1.26;
- drainage: * 1.76;
- extraction pits: if we add the new accounts 'extraction pits' and 'coal handling installations', we obtain * 3.76;
- current assets: * 1.31

New chapters are also power plant, showers and infirmary.

On the liability side, a 'fonds d'amortissement' is introduced and the account 'balance d'actif' is increased significantly (* 1.79).

Also in the p/l account, the increases were very important: the 'produit de l'exploitation' increased with * 1.76, exploitation expenses * 1.50 and amortization and provisions * 8.16. Part of these increases were the

consequence of the extremely high level of selling prices; these fluctuated very strongly in the following years, leading to large decreases and increases in the results of the company.

Conclusions concerning reporting practices Reporting to shareholders seems to have been quite variable. In some cases, shareholders received quite a lot of detailed data; in most collieries however, they only received a summarized balance sheet and profit and loss account, and a report of the "Conseil d'Administration" that only highlighted some of the central figures concerning the situation of the company. Information on the valuation principles that were at the basis of the figures, was not provided. Interpretation of the balance sheets by parties without inside information must therefore have been difficult, especially since these valuation bases often were changed. Major changes in accounting policy were generally not commented, and it is rather unlikely that an explanation was given verbatim during the meeting: detailed reports addressed to the general meeting were preserved for some companies and these contained only a few examples of comments on accounting changes.

Especially the profit and loss account was often extremely concise, providing virtually no information on the structure of revenue, and only some major expense types. In some companies, it even was limited to a profit appropriation scheme. It seems to have been common practice to create detailed statements internally and publish a summary of them, a situation that differed from British practice, where this rarely occurred. This reduction of the information available to shareholders is in line with the point of view generally found in contemporary literature: the less the outside world (which includes shareholders, competitors and the State) knows about the situation of a company, the better. An important element is that for most of these companies, the difference between managers and owners was not that great, so owners might not have needed many additional information, since they were represented or present at the meetings of the 'Conseil d'Administration'.

A central issue in a major part of the literature on 19th and 20th century accounting practices, is the accounting treatment of fixed assets. Current practice generally prescribes that these have to be capitalized and charged to revenue over the period during which they play a role in the creation of income. Practices during the period studied here, turned out to be highly variable, both in time and from one firm to another. This must have had a significant impact both on reported unit costs, on balance sheet figures and on reported profits.

The direction of this influence is difficult to assess. For balance sheet totals, it is clear that if a company does not capitalize fixed assets and does not record amortization / depreciation, the balance sheet cannot give 'a true and fair view' of the value of the company. The fact that this practice was widespread and did not lead to significant comments, neither from the 'general public' nor from the State, might mean that it was not the purpose of financial statements to give an indication of the value of a company as a going concern. Capitalizing assets and amortizing them also created interpretation problems, mainly because general practice was to enter depreciation on the liability side. This practice led to inflating balance sheet totals, without reflecting an actual increase of the value of the company. It is highly improbable that, if one looks at industry averages, both positive and negative differences would cancel each other, especially if one also considers the changes that occurred in time.

The effect on reported profits is also difficult to assess: in periods with high 'preparatory works' and 'first establishment works' (in the companies where these were charged to unit cost or revenue), charging all these expenses to revenue in the period in which they occurred, must have reduced profits. On the other hand, in periods with low investments, the absence of depreciation charges has increased profits. Detailed time series would be necessary to come to an assessment of the direction of these 'errors'.

The information content of reported profit and loss accounts is also limited because they generally do not distinguish between different kinds of expenses and revenue. No systematic distinction is generally made here between 'ordinary' and 'extraordinary' items, or between exploitation results and financial results. This problem is already embedded in the structure of most of the charts of accounts, in which financial expenses are included in the general expenses, that are in turn included in the exploitation expenses, or charged separately to unit cost. Financial expenses and revenue are generally compensated, as are a number of extraordinary items.

GENERAL CONCLUSION

These examples make clear that financial accounting data were often difficult to interpret, mainly because the valuation principles were not explained and because the numerous changes in these valuation methods were not commented. It seems therefore a quite perilous undertaking to study the evolution of a company only via its published

accounts. Historical analyses that are based on time-series of published financial statements should consequently be approached with extreme prudence since there is no certainty that changing figures indicate a changing reality. In most cases, additional information is needed to be able to judge published figures. Unfortunately, such information will generally not be available. On the one hand, the number of business archives which were preserved (and are accessible) is rather limited. On the other hand, even in those archives where we find detailed accounting data, information on valuation rules is generally limited or missing.

**De Interpretatie van Historische
Boekhoudkundige Gegevens.
Voorbeelden uit de Belgische Steenkoolnijverheid.**

DOOR
IGNACE DE BEELDE

Samenvatting

De problemen die kunnen ontstaan bij de interpretatie van historische boekhoudkundige gegevens worden geïllustreerd aan de hand van voorbeelden uit de Belgische steenkoolnijverheid van de eerste helft van de twintigste eeuw. De klemtoon ligt op de jaarrekeningen van de betrokken ondernemingen.

De voornaamste problemen zijn dat doorgaans slechts een beperkt deel van de boekhoudstukken bewaard bleven, dat heel wat stukken weinig bruikbare informatie bevatten en dat we meestal geen informatie hebben over de gehanteerde waarderingsprincipes. Vooral het laatste gegeven is essentieel: zelfs als we vrij volledige reeksen hebben, blijkt het vaak onmogelijk cijfers met elkaar in verband te brengen.

Het artikel geeft een summier overzicht van de evolutie van de externe financiële rapportering in de Verenigde Staten en het Verenigd Koninkrijk en analyseert de wettelijke verplichtingen m.b.t. het houden van boekhoudstukken en het opmaken van jaarrekeningen in België. Uit deze analyse blijkt dat de dwingende bepalingen terzake bijzonder bondig waren.

Een aantal mijnen in het Luikse gebruikte min of meer het door de Société Générale gehanteerde hiërarchisch gestructureerde rekeningstelsel. Andere mijnen organiseerden hun grootboeken op een minder consistente wijze. In deze mijnen leverde de algemene boekhouding minder informatie op: rekeningen waren minder gedetailleerd en meer variabel.

Het artikel besluit met een aantal voorbeelden, die de variabiliteit van balansen en resultatenrekeningen illustreren. Deze variabiliteit heeft

enerzijds betrekking op de gebruikte structuur, anderzijds op de gehanteerde waarderingsprincipes, het laatste vooral m.b.t. de activering van vaste activa. Extreme verschillen tussen de jaarrekeningen van opeenvolgende jaren werden vastgesteld, verschillen die grotendeels terug te voeren zijn tot wijzigingen in het boekhoudbeleid. Het vergelijken van ondernemingen en het vergelijken van de evolutie van een onderneming in de tijd op basis van deze informatie is dan ook een hachelijke onderneming.

L'interprétation de données comptables historiques. Exemples provenant de l'industrie minière belge.

PAR
IGNACE DE BEELDE

Résumé

Les problèmes qui peuvent surgir durant l'interprétation de données comptables historiques sont illustrés à l'aide d'exemples provenant de l'industrie minière belge dans la première partie du vingtième siècle. L'accent est mis sur les comptes annuels des entreprises concernées.

Les problèmes majeurs résident dans le fait que la plupart du temps seulement une partie limitée des pièces comptables nous est parvenue, que nombre de pièces ne contiennent que des informations peu utilisables et que le plus souvent nous ne possédons pas d'informations concernant les principes d'estimation qui furent appliqués. Surtout cette dernière donnée est essentielle: même lorsque nous possédons des séries assez complètes, il s'avère souvent impossible de relier les chiffres l'un à l'autre.

L'article offre un aperçu sommaire de l'évolution du compte-rendu financier externe aux Etats-Unis et au Royaume-Uni et analyse les obligations légales concernant la tenue d'éléments comptables et l'établissement de comptes annuels en Belgique. De cette analyse ressort que les dispositions obligatoires à ce sujet étaient particulièrement sommaires.

Un nombre de mines de la région de Liège employaient plus ou moins le système de compte hiérarchique usité par la Société Générale. D'autres mines organisaient leurs grands-livres de façon moins cohérente. Pour ces mines, la comptabilité générale fournit moins d'informations: les comptes étaient moins détaillés et plus variables.

L'article se termine par quelques exemples illustrant la variabilité des bilans et des comptes de résultats. Cette variabilité est en rapport avec d'une part la structure employée, d'autre part les principes d'esti-

mation en vigueur, ce dernier élément surtout en ce qui concerne l'actionnement des actifs fixes. Des différences extrêmes ont été observées entre les comptes annuels successifs, différences qui doivent en grande partie être mises au compte des changements dans la stratégie comptable. Comparer des entreprises et comparer l'évolution d'une entreprise dans le temps sur base de cette information constitue dès lors une aventure périlleuse.