

An Economic Analysis of Fair Value:

The Evolution of Accounting Principles in European Legislation¹

Vincent Bignon²

Yuri Biondi

Xavier Ragot

With a commentary by Richard Barker³

Prisme N°4

March 2004

¹ Special thanks go to Jean-Louis Beffa, Robert Boyer, Jean-Gabriel Brin, Arnaldo Canziani, Philippe Crouzet, Nicole El Karoui, Sylvie Grillet-Brossier, Christian Hoarau, Gérard Liné, Antoine Rebérioux and Jean-Philippe Touffut for critical comments which helped to clarify our arguments. We accept sole responsibility for any possible errors contained in the text.

² **Vincent Bignon** is an associate professor at the Université de Créteil and a researcher at the Université de Paris-VII and the Université de Paris X Nanterre.

Yuri Biondi is an associate professor of business economics, accounting and finance at the Université de St. Etienne and a researcher at the Léon & Auguste Walras Centre.

Xavier Ragot is a researcher at the Centre National de Recherche Scientifique (CNRS).

³ **Richard Barker** is a Senior Lecturer at the Judge Institute of Management, University of Cambridge, and a Research Fellow at the International Accounting Standards Board.

Summary

In July 2002, the European Parliament's adoption of new accounting standards for quoted companies, to take effect from January 1, 2005, oriented European accounting towards a new principle, that of fair value. Hitherto, European legislation took its essential inspiration from the logic of historical cost: the valuation of balance sheet assets was grounded in the depreciated historical cost of their acquisition. The introduction of the principle of fair value will impose the determination of the value of assets by the present value of the expected profits that these assets can generate. It involves establishing the value of each asset according to its future contribution to the profit of the business.

Contemporary research, however, does not have as its ultimate goal the replacement of historical cost by fair value. Recent work analysing business production processes plead, on the contrary, for limitation of its usage. Three concepts summarize this work: asymmetry of information, complementarities, and specificities of assets employed. Firms create wealth by making assets complementary, because they add to these assets characteristics specific to the production process deployed. These supplementary characteristics have no market value, and thus the value of each asset for a firm is always greater than its resale value. Consequently, the specificity of an asset is defined by the difference between its value for the firm and its market value. In order to preserve the competitive advantage flowing from this combination of specific assets, it is necessary to keep this type of information secret: hence, there exists an asymmetry of information between the firm and its environment.

In this context, the criterion of fair value poses important problems of asset valuation: the specificity and complementarity of assets force accountants to use valuation models in order to determine asset values. Financial analysts have recourse to such models in order to value businesses. The use of these models for accounting purposes does not, however, ensure the reliability of accounts; in effect, small changes in the assumptions can lead to large variations in the results. The purpose of accounting is rather to constitute a source of independent information, in a form that is relevant to valuation by financial markets.

In addition to the valuation problem, the principle of fair value may introduce the problem of financial volatility into accounting. The existence of excessive financial market volatility, which is demonstrable theoretically and empirically, creates superfluous risk and tends to reduce the investment capacity of firms. Lastly, fair value reinforces financial criteria to the detriment of the other valuation criteria of management teams. All stakeholders in the business, including shareholders and institutional investors, risk being its victims.

It is difficult to affirm that the net contribution of fair value to the improvement of accounting standards is positive. If far from ideal, the logic of historical cost appears as the least worst option in the presence of informational asymmetries, complementarities and specificities.

Table of Contents

Introduction.....	1
I. The Principles of Historical Cost and Fair Value.....	3
A) Historical Cost.....	3
B) Fair Value.....	6
II. Asset Specificity and Complementarity.....	8
A) Specificity and Asymmetries of Information.....	8
B) Complementarity and Indivisibility.....	11
C) Should Accountants Model?.....	14
III. Using Current Market Prices in Financial Statements.....	16
A) Are Market Prices the Right Benchmark?.....	16
B) Interpreting Earnings.....	19
C) Assessing Risk.....	20
IV. Accounting Information and Its Political Economy.....	21
A) Management Incentives and Evaluations.....	21
B) A Shareholder-Based Vision of the Firm Inscribed in the Accounts.....	22
Conclusions.....	23
A Commentary on An Economic Analysis of Fair Value by Richard Barker.....	25
Rejoinder.....	29

Introduction

When in July, 2002, the European Commission submitted to the European Parliament legislation anticipating the adoption of new accounting standards, it marked a stage in the history of accounting in Europe⁴. These standards, conceived and promoted by an independent private organization, the International Accounting Standards Board (IASB), will take effect from January 1, 2005, for all firms quoted on stock exchanges. Their novelty resides in the introduction of a different principle of accounting valuation. Prior to the adoption of the new standards, the traditional method of valuing assets on the balance sheet was historical cost (that is, historical cost with depreciation). The cost of an asset at the moment of purchase is recorded on the asset side of the balance sheet, net of depreciation, representing wear and tear and obsolescence in production.

Advocates of fair value criticize the central principle of historical cost: why should past prices be thought to indicate asset values accurately? Economic or financial changes, or the circumstances of an asset's acquisition, can cause these two quantities to diverge widely. If one intends to record on the balance sheet the real wealth of a firm, that is, the value of what it mobilizes in production, then the value of each component of an asset should be measured, not on the basis of past prices adjusted for depreciation, but directly, on the basis of the (present value of) future cash flows which each asset specifically creates. The aim of fair value is precisely to measure this quantity.

The application of the principle of fair value rests on the synthesis of two kinds of valuation: market value (or *net selling price*), and use value (or *value in use*). In the first case, assets are recorded on the balance sheet at their resale market price on the date of reporting; in the second case, the value recorded corresponds to the discounted expected cash flows generated by the asset. This discounted cash flow approach implies the construction of a valuation model.

⁴ A synthesis of the legislation is available on the website of the European Parliament:

<http://europa.eu.int/scadplus/leg/en/lvb/l26040.htm>.

It would be false to present fair value as the core of all the standards proposed by the IASB. Only some refer to fair value, for example, IAS 16, 36 and 39. Furthermore, the method of fair value is presented as secondary, while the method of historical cost remains the benchmark. Nevertheless, the introduction of the principle of fair value is not a minor modification of accounting principles. Following Mistral (2003), we think that "from a conceptual viewpoint, fair value is without any doubt the cornerstone of the project sponsored by the IASB", and that the reference to fair value introduces a new logic into accounting records, the scope of which should be appreciated.

Box I: A Brief History of the Harmonization of Accounting Standards

The process of accounting harmonization in Europe took off in the second half of the 1970s, in the course of which two directives devoted specifically to accounting questions were developed. The Fourth Directive, ratified in August 1978, deals with the objectives, presentation and content of the annual accounts of companies. The Seventh Directive of July 1983 is devoted to consolidated accounts. In spite of this process of harmonization, at the end of 2000, the Commission decided to propose the adoption of accounting standards developed by a private organization, the IASB. On March 12, 2002, legislation was submitted to the European Parliament, in anticipation of the adoption of the IFRS standards (produced by the IASB) by all European quoted companies (including banks and insurance companies), for their consolidated accounts from 2005. A member state may choose to extend this obligation to include the annual accounts and even to include unquoted companies. The rule 1606/2002/CE was adopted quasi-unanimously (492 out of 526 votes). It concerns 39 of the 41 standards. The fact that two standards, numbers 32 and 39, were not put to a vote, can be explained by the refusal of the banking and insurance sectors to apply fair value to the accounts of their intermediary activities.

Box Ib: The International Accounting Standards Board (IASB)

The IASB is a council which was formed in 2001, following the institutional reorganization of the International Accounting Standards Committee, a private umbrella organization regrouping the professional accounting associations of the principal developed countries. The IASB is composed of 14 members, of which 12 are full-time. The council has its headquarters in London, and the standards it produces are now called International Financial Reporting Standards (IFRSs). The members of the council (open to all nationalities) are nominated by the IASC Foundation on the basis of their competencies. This foundation, which also provides the financing of the IASB, is a private foundation, registered in Delaware. It is controlled by a committee of 19 administrators whose president governed the Federal Reserve Board from 1979 to 1987.

The goal of this text is to present the economic rationales which underpin these two approaches to accounting – historical cost and fair value – in order to shed light on their respective domains of application and the possibility of combining them.

Taking account of the principle of fair value provokes two opposing reactions: *either* the number, however limited, of references to the measure is too high, *or* the generalized application of these principles is necessary to all kinds of items, to assets as well as to liabilities. This project of systematic asset valuation, in particular financial asset valuation, is called *full fair value*. The present text will show that behind these choices lie two profoundly different understandings of the firm and of the meaning of accounting information.

The authors' judgement is presented in the conclusions of the text, to which the reader in a hurry may refer in order to draw lessons from the recent evolution of accounting principles. The argument is presented in four sections: (I) the principles of historical cost and fair value; (II) specificity and complementarity of assets; (III) the use of current market prices in balance sheets; (IV) accounting information and its political economy. More technical points or other direct information amplifying the arguments are presented in text boxes.

I. The Principles of Historical Cost and Fair Value

A) Historical Cost

The balance sheet of a firm displays the amount of capital that is mobilized in production. The logic of historical cost with depreciation (which we shall abbreviate to historical cost) records the costs invested in production as an asset in the accounts, that is to say, the cost of investments related to factors of production as they are fixed at the time of purchase, adjusted for depreciation. Thus, it involves recording capitalized monetary outflows, that is to say, the capitalization, in the accounts, of effective expenditures rather than the present value of future gains associated with holding the asset (the discounted value of future monetary inflows). Between the assets on the balance sheet and the expected gains lies the firm's production function which the method of invested cost does not evaluate, leaving the task of representing

the firm's performance period-by-period to the income statement. The evolution of the income statement and of the balance sheet gives an annual economic evolution of the performance achieved. For this reason, Biondi (2003), in particular, describes this accounting approach as *dynamic*, in opposition to the *static* approach of fair value. The principle of asset valuation at the date of entry into the accounting entity is transparent, and the possible, lasting depreciation of the value of assets is the object of management choice. This choice is based on the lasting usefulness of these assets for the firm and on the underlying accounting principles.

Advocates of the valuation method of fair value contest this conception. In their opinion, it contravenes to a large extent the principle that accounting should provide a true and fair view of the company's situation. The numerous criticisms of historical cost accounting can be grouped under the following two main heads:

- There is absolutely nothing systematic about the depreciation of asset values. Except for the case of wear and tear or obsolescence, it is the manager who assesses the potential loss on an asset. This loss may be the result of a change of strategic direction on the part of the firm, an external event, or, more widely, the economic environment. The events of the 1990s document abundantly the impact of firms' strategic changes on their accounts. Firms adjust the values of their assets via restructuring or depreciation provisions.
- The subjectivity of valuations enables managers to disguise accounting earnings⁵. In effect, the prevailing method leaves too wide a margin of manoeuvre for constructing these results. In order to make this mystification impossible, the defenders of fair value wish the automatic end-of-period inclusion of (capital) gains and losses on assets to be made relative to a valuation basis external to the firm (i.e., the spot valuation of each single asset by the market price or a model).

⁵ For example, it is possible to undervalue the holding losses or, on the contrary, to sell an asset undervalued in the accounts so as to realize an effective gain, thereby increasing earnings.

Box II: The Principles and Rules Governing the Measurement of Assets – IAS 16 and 38

In accounting theory, there are two major approaches for measuring assets:

- a (static) market valuation, essentially individualist, linked to the instantaneous or spot value of the asset in isolation, either at the current price of the asset in a benchmark market, or by discounting its future cash flows;
- a (dynamic) productive valuation of the assets employed, essentially aggregated, linked to the combination of the asset in question with other resources in sustainable economic coordination, oriented and positioned within the going concern.

Fair value is a revival of the static approach and can be viewed as a synthesis of the criticisms directed at the dynamic approach of historical cost. As regards the measurement of assets:

- A. the reference should become the spot value of the asset;
- B. the income statement, like depreciations, should include unrealized profits and losses.

On first glance, the IASB accepts both types of valuation, the static and the dynamic. In effect, the rules that it enacts allow either the first method, considered as secondary, or the benchmark method of historical cost, although adjusted for impairment (IAS 36). We shall study these methods in greater detail later on.

This double criterion is often presented as a degree of freedom permitted to firms, allowing them to draw up the accounts better. In fact, the optional character of this fundamental feature undermines the coherence and reliability of the enactments, in particular concerning aggregation and inter-temporal and inter-firm comparisons.

From a theoretical perspective, the methods of the IASB do not respect the two key points that we have just mentioned as consequences of fair value. In the first place, the initial recognition of the asset is always made at the effective cost, which purely by chance happens to coincide with the fair value at the time of the transaction (contrary to the implication of point A above). In the second place, it is based more on the estimates of certified experts than on the current market price when the first method is followed (contrary to the supposition of point A above). Furthermore, the possible loss made on the magnitude already recorded feeds through directly to the earnings, whereas the unrealized profit is recorded in a reserve and does not pass through into the income statement (contrary to the implication of point B). Finally, the IASs do not include this profit in the income statement even at its effective realization (contrary to the supposition of point B).

That, however, involves only a partial acceptance of the principle of historical cost. In its general conclusions about the standard IAS 36 (§B28), the IASB appears to admit that the significance of the loss for depreciation should remain limited to the case where the firm wishes to own the assets in question, rather than the case where it seeks to dispose of them.

B) Fair Value

The principle of fair value suggests that asset values be determined by discounting the flows of expected profits. According to economic theory, this value equals the market value of the assets under the ideal assumption of a perfect market⁶. In effect, if competition is pure and perfect, the value of an asset is exactly equal to what it will earn (the no arbitrage [or zero profit] hypothesis). If markets are imperfect, one should be able to construct a model of the value of the flows generated by the asset. The IASB suggests choosing the larger of the two values as a standard for impairment of the value of an asset recorded at depreciated cost (IAS 36). Advocates of a switch to fair value emphasize that modifying the valuation principle could improve accounting information on three counts.

- First, it would give shareholders a more faithful view of the firm, because of an improved assessment of wealth. The most evident example, which illustrates the conceptual basis of fair value, is the case of financial securities. If the value V of a financial security corresponds to the present value of the average future cash flow at the moment of purchase, and so it has the market price V , why should this security correspond to the same cash flow one year later, after the publication of new economic information? The value of the security, corresponding to its exchange price, should be reassessed continuously in order to reflect this new information. This possibility exists in French accounting, but only in the case of potential losses judged to be lasting⁷.
- Second, accounting documents would provide a more precise picture of the risks which firms are bearing: assessment at fair value would uncover the "true" value of assets and liabilities. Asset and liabilities would be recorded at spot value on the balance sheet, that is to say, at the current market price or at a model-generated estimate of that value (cf. Box III). These

⁶ See Cartelier (2004) on this point.

⁷ In effect, the prudential or precautionary principle recommends that the difference between the acquisition cost and the current value of an asset be recorded when this makes visible a devaluation judged to be lasting. On the other hand, the same principle entails not taking into account the potential profits resulting from a current valuation superior to the purchase value.

values are held to reflect the complete information available at the time of drawing up the accounts. For new firms, this is a particularly delicate point, since their price varies greatly over time, reflecting at least partly the collective appreciation of the risks associated with the product. Further, the evolution of the spot value is held to make possible a better appreciation of bankruptcy risk. Hence, investors' portfolio selection should be made easier by the more informative character of the accounts. Conversely, the periodical divulging of this information is thought to exercise greater discipline on the behaviour of firms in the presence of risks.

- Third, fair value would give a more truthful picture by reducing the margin for manoeuvre in drawing up income in financial statements. Accounting would thereby help external monitoring on the part of shareholders and financial markets, which would become the benchmark users.

If the arguments of the defenders of fair value seem self-evident, the next part of our text will show that nothing of the sort is true. On the contrary, the principle of historical cost finds solid foundation in contemporary economic theory, particularly in the theory of the specificity and complementarity of assets⁸.

The approach of this text consists in analysing the principle of fair value in the light of two pairs of concepts: specificity and information asymmetries⁹, on the one hand, and complementarity and indivisibility, on the other. We shall show that the recognition of the complementarity and specificity of assets involves a plurality of possible assessments of each asset. In following the principle of fair value, firms would still have at their disposal a margin for manoeuvre in the assessment of their assets, which is far from the objectivity sought by defenders of that principle. The existence of a margin for manoeuvre renders vain those efforts designed to make the overall accounting statements more truthful and fair.

The following section aims to show that it is unfounded, even dangerous, to rely on a direct transposition of financial principles, such as the principle of fair value,

⁸ This is why we have ignored questions relating to the presentation and harmonization of accounting structure and books.

⁹ An informational asymmetry exists when one individual possesses more information than others concerning a good, a product, a situation or, in the present case, the value of an asset.

for valuing accounting assets. That is because these principles are subordinate to the conditions of validity of the theory of perfect markets. In order to conceive firms in operation (as going concerns), this theory, in effect, would have to take account of the two pairs of concepts mentioned above.

The difficulty in applying the principle of fair value has not escaped the authors of the new standards, who foresee secondary dispositions for the cases in which this principle cannot be applied. Taking into account the limits of the applicability of fair value leads one to reverse the argument: should not that valuation principle be restricted to highly specific cases, namely those cases where the method founded on the principle of historical cost is manifestly inappropriate?

II. Asset Specificity and Complementarity

A) Specificity and Asymmetries of Information

The nature of a firm's assets, such as those relating to business combinations, usually differs from that of purely financial securities. For example, the external growth of a firm may lead it to acquire shares in companies, which may uncover complementarities or synergies with its core competencies¹⁰. Thus, the economic profitability of assets varies with the kind of acquirer, something which the theory of perfect markets says is impossible. An asset is deemed specific for a firm when its use by that firm generates a return greater than the return that would be generated by its use by any other entity. The market price of this asset, that is to say, the collective assessment of its value by other agents, is different from its value for that firm. Because the firm possesses information about the specific value of that asset, an asymmetry of information exists between the firm and the market participants.

Let us take a simple and purely fictitious example. Imagine that a car manufacturer in the as-yet-unknown country Xayuvi owns a production technique similar to that of a Japanese car manufacturer, but with a considerable technological

¹⁰ An acquisition by a business group which guarantees it a significant technological complementarity is in general well received by the markets. Moreover, the waves of mergers and acquisitions can be conceived as dynamic processes aiming at optimal allocation of totalities of assets among firms.

lag. The national reputation of this manufacturer makes it an obligatory benchmark. The value of the company in Xayuvi is greater for the Japanese car manufacturer than for its competitors because of the greater technological synergies¹¹.

Box III: Accounting Assets between Invested Cost and Present Value – IAS 36

With IAS 36, the regulator establishes a norm for verifying the depreciation of assets. Three possibilities are excluded: the sum of undiscounted cash flows, fair value, and value in use. The regulator keeps only the higher of the net selling price and the value in use (IAS 36, B21), which might be called the instantaneous value or spot value.

The essential problem here rests on the notion of value in use. According to the IASB, this is defined in terms of present value (IAS 36, §5), contradicting the dynamic tradition which conceives of value in use as based on invested cost, depreciated over the expected useful lifespan of the underlying resource (Richard, 1996). From this, all the measures proposed by the IASB regarding assets incline towards discounting (IAS 36, B22), and in perfect markets, they would be finally the same.

This point of view neglects the logical distinction between value and cost (Littleton, 1935). The principle of historical cost neither takes account of the spot value (cf. supra) nor of its greater or lesser fluctuations; it focuses on the economic process of the firm as an entity and, consequently, on the invested costs and their recovery. In this context, the notion of asset is justified by its combination with the other resources in goal-directed sustainable economic coordination, constituting the going concern, without reference to the discounting of expected cash flows. The notion of "asset" is based rather on reliable conventions of capitalization and depreciation of actual expenditures.

Specificity as such does not pose a problem for the approach of fair value. Moreover, the authors of the IASs take account of the evolution of the value of an asset (IAS 36), since in order to calculate that value, they retain the greater of the net selling price and the value in use, this last being measured by present value (i.e., by discounting future cash flows). The reasoning outlined above can be taken to show that the difference between these two values is precisely an estimate of the specificity of an asset. A problem does arise, however, in measuring this specificity precisely.

The valuation of a specific asset requires precise knowledge of the firm in order to assess assets' synergies. From their experience, the firm's management and employees possess technical and operational knowledge, which the external observer does not. This observer is therefore in a position of informational asymmetry relative

¹¹ The Japanese builder might for example acquire its homologue Xayuvi in order to accelerate its technological catch-up at a significantly faster rate than that of its competitors.

to the firm's executives who decide to bring onto the balance sheet assets which they consider specific. The precise measure of the synergy between the Japanese producer and the Xayuvian producer involves a very good knowledge of these complementarities by markets. The problem is similar to that of the valuation of firms on equity markets. In order to reduce informational asymmetries, investment companies have recourse to the services of an imposing array of analysts who follow each market and who replicate the managerial skills of insiders.

Firms also devote part of their resources to protecting this information or to acquiring information on their competitors through industrial espionage. Informational asymmetry is essential and inevitable to every business project. Specificity is the theoretical basis of excess value, which is the difference between the valuation of securities by the acquiring firm and the market value¹². Excess value often gives rise to valuations which show themselves to be fantastical, like those resulting from transactions during the Internet bubble. Generalising fair value would render structural those problems which are visible in measuring excess value. Whereas the accounting problem of excess value surfaces only when equity in, or control of, a company is acquired, the logic of fair value extends it to the valuation of all assets at every preparation or presentation of financial statements. It can be understood as an extension of the logic of financial valuation. The latter's failures – most notably at the time of the Internet bubble, but also in the analysis of companies whose bankruptcies are current bad news – cast doubt on the interest of extending such a logic to company balance sheets, at the risk of seeing stock market bubbles pass into accounting bubbles.

Like the problem of bubbles and fantastical valuations, the problem of undervaluing asset specificity appears to mark the accounting standards proposed by the IASB. In effect, the analyst in a hurry finds a simplistic first approximation in the spot values of assets (cf. Box III). Whatever precautions are taken, the fair value of all the assets of an entity might often equal the realizable value of firms. Furthermore, the accounting standards relating to intangible assets (IAS 38) do not value as an asset those expenditures which increase both the specificity and economic value of

¹² This specific valorization of the activity of the firm as a whole takes into account in particular a conditional expected excess profit and therefore differs from both the market value and the aggregate of accounting values.

companies, such as research, staff training and marketing costs. These expenditures add to the human, organizational, social and technological capital of firms. They do not appear on the asset side; they only appear as expenses in the income statement. Whereas the logic of fair value is to represent a firm's wealth as an asset, the undervaluation of specificity leads to the exclusion of an important part of the economic capital of the firm from the asset side of the balance sheet, and it reduces the value of the firm's wealth to its realizable value.

To sum up, the use of fair value introduces formidable difficulties of asset valuation into accounting because of specificity, complementarity and the systematic taking into account of even remote future events. Two opposing risks are foreseeable: the appearance of accounting bubbles, similar to stock market bubbles, and the undervaluation of asset specificity. Furthermore, other essential aspects of the economic process of the firm make the application of fair value difficult. In particular, the necessity of determining the contribution of each element to future cash flows poses the question of the decomposability of the going concern, which we shall raise in the following section.

B) Complementarity and Indivisibility

The preceding section concentrated on the valuation of a single asset in isolation. Assessing the productive contribution of different assets, even non-specific assets, poses deeper problems. According to a purely financial logic, assets ought to be perfectly independent: if I purchase the shares of company A, that has no reason to impact the return on the shares of company B, which are among my assets. Nevertheless, the logic of share-ownership is not purely financial, except perhaps in the case of cash equivalents (liquid instruments)¹³. Thus, if I own the Xayuvian car manufacturer and if the Japanese manufacturer possesses techniques which can improve its productive efficiency, then joint ownership of these two assets will allow me to increase the future cash flow relative to the separate assets¹⁴. The

¹³ Even in this case, one would have to consider the internal financial process. Its particular forms might not satisfy the assumptions of cash liquidity as "perfect" as external financial markets.

¹⁴ Possession of assets here means mastery of their use, which allows effective technology transfer between the two units. This controlling right is by nature indivisible: one cannot buy in the market half of the technology transfer between two firms. The control of assets is exclusive.

complementarity and indivisibility of the assets make the attribution of cash flows difficult, even impossible.

Imagine that the Xayuvian enterprise A and the Japanese enterprise B each produce goods worth 10 million euros. After training costs and restarting the activity, the integration by company C of these two enterprises yields a production of goods worth 25 million euros, because of the synergies described above. The two assets are therefore complementary since they enable a total production greater than the sum of the parts. How should one determine the value in use of assets A and B? Is it 10M and 15M or 12.5M? A callow application of the IAS accounting standards would imply that the valuation, according to the principle of fair value, be made following the order in which the assets were acquired. If company C acquires first B and then A, the valuations are 10M euros and 15M euros, respectively. If the order is inverted, then B is valued at 15M euros and A at 10M euros.

Box IV: The Productive Entity and the Legal Boundaries of the Firm – IAS 22, 27, 28, and 31

As the example of ENRON shows, accounting legislation is ineffective if the economic boundaries of firms' activities and the risks involved are not taken into account. Whether it be for the protection of shareholders or of all stakeholders, this representation is indispensable.

On this subject too, the IASs are ill-defined. A paradox exists between the general notion of the control of a company in terms of the power to govern its financial and operating policies, beyond its legal boundaries (e.g. IAS 27, §6), and the ulterior, more specific criteria, which tie it to the legally binding arrangements, such as shareholder vote majorities. The standards relating to acquisitions (IAS 22), associates (IAS 28) and joint ventures (IAS 31) define criteria of control grounded in legal bases. However, the instruments covered by these standards are often used with cunning financial engineering to dress the accounts and mask the real economic issues and financial risks of an entity. Co-ordination of the standard on consolidated financial statements (IAS 27) with these other standards is therefore necessary.

Finally, given the let-out rules from the principle of historical cost, greater attention concerning any goodwill is merited. Standards may allow the accounting capitalization of an expected conditional excess profit, camouflaged as a depreciable intangible asset. Cunning accounting creativity might exploit this vagueness.

This trivial example shows the difficulty of understanding an enterprise as the sum of the assets held by shareholders. An interpretation of the firm's balance sheet which only takes into account the idea that liabilities "offset" assets loses sight

of the fundamental understanding of the economic activity of the firm as an entity. This understanding is predicated on the idea that a firm is a whole which is difficult to decompose because of numerous complementarities and indivisibilities.

A firm is an entity which mobilizes assets for productive ends in a complex way, and for which, as an entity, accounts can be reported. The notion of value in use as defined by the IASB, in terms of discounting, is difficult to apply to complementary assets. Moreover, economists studying business organization have often underlined the fact that firms are equipped with specific skills which differentiate them (Dosi and Marengo, 2004); however, an essential asset of firms, highly complementary to other assets, does not appear on the asset side. This asset is the organizational capital embedded in the set of routines, tacit knowledge and production techniques incorporated by firms' agents. The conjunction of this organizational capital and of other assets drives the firm's income, yet it is this very conjunction that one is trying to reduce to the assets alone. Taken to extremes, the indecomposable nature of the production process becomes a caricature, of course. The underlying economic problem, which involves the marginal productivities of complementary and indivisible assets, highlights a major logical difficulty in the application and in the foundations of fair value.

This difficulty is obviously raised in the presentation of the standards, particularly of IAS 36. There the recommendation is to define profit centres whose assets are independent¹⁵, and then to implement a byzantine pro-quota re-allocation. It is easy to imagine the underlying difficulties and endless debates involving asset regroupings. Even in the framework of conglomerates with clearly separate activities, management always emphasizes the existence of complex synergies which justify the regroupings by industrial, technical or commercial hidden logics. If the profit centres coincide with the enterprise, the asset valuation problem is analogous to the problem of the financial assessment of business combinations, referring back to the problems of specificity mentioned above.

¹⁵ That is, cash-generating units to which assets belong and which generate cash inflows that are largely independent of those of other units.

Box V: Combinations of Resources and Assets – IAS 38

Accounting questions the process which goes from capital invested in business resources to value creation. This capital is represented in the form of assets (tangible and intangible). Moreover, accounting assesses and represents the firm's revenues as these are generated by the productive entity. Why should one invest without a return? Every expenditure should yield income. In order to verify whether this is the case, financial statements are drawn up periodically.

Take the example of intangible assets (treated by IAS 38). Suppose that some resources capitalized as assets could be disposed of separately (for example, a patent). If one recognizes the economic and monetary process specific to the firm, this divestment causes the loss of the usefulness of each of the other assets related to those resources and the loss of the conditional competitive advantage, which lies generally at the source of the firm's income (of the firm's revenues). The IASB argumentation neglects completely these aspects (IAS 36, B34). It is also for this reason that the assessment of these assets does not involve the discounting of future cash flows generated from their use, but rather the capitalization and depreciation of the actual corresponding expenditures.

From this perspective, IAS 38 devoted to intangible assets can be criticized, because in the case of intangible resources created internally, it fails to recognize intangible assets, such as research, start-up costs, staff training costs, marketing costs. These items are reported only as expenses in the income statement. In effect, this standard seems to connect the reliability of the measurement to the existence of a market value, rather than to a value in productive use, contrary to the conceptual framework of the IASB, which attributes asset status to every resource whose potential is useful to the firm, whether directly or indirectly.

C) Should Accountants Model?

The generality of the problems of specificity and complementarity poses other difficulties for the IASs. In many cases, reference to spot values lead accountants to develop valuation models to estimate the future cash flows generated by each asset or profit centre. According to the injunctions of the IASB, all these models should be based on reasonable hypotheses, which use the best estimates of management. In fact, every modeller knows that small shifts in the parameters can result in accounting estimates differing by several orders of magnitude. It is bizarre to base the accounting valuation of assets, on the one hand, on the ability of firms' managements to forecast the future, and, on the other hand, on their simple good faith in the use of available information.

The construction of models and cash flow forecasts are usually made by a considerable number of competing analysts. There exists a competitive market in

valuations, so to speak. Because of informational asymmetries, the value of analysts becomes clear in the long term through reputation building¹⁶. This comparison of valuations cannot happen without the existence of an autonomous source of accounting information, independent of financial valuations.

In sum, it is difficult to base a valuation principle on a method which appears incapable of determining asset values in a univocal way. Whereas the stated goal of the principle of fair value is to make accounting information more transparent and relevant, this principle harbours at its core a potential indeterminacy opening the door to arbitrary interpretations. As indicated above, two opposing risks are foreseeable: the emergence of accounting “bubbles”, and the undervaluation of asset specificities, which reduces fair value to the simple realisable value of firms.

Thus, the shift to fair value can reduce neither the subjectivity of valuations nor the possibility of earnings camouflage. The reform may just lead to the modification of the channels used by some firms to dress up their accounting statements. On the other hand, there is a strong likelihood that the reliability of accounts be penalized by this reform, which raises the question whether it is worth pursuing at all. As some researches point out (Casta-Colasse, 2001; Hoarau, 2003), the appropriateness of changing accounting legislation in order to adapt it to the brand new instruments of financial management is questionable. In fact, accounting valuation and financial valuation appear as two distinct logics and two complementary sources of information. The modification of the asset valuation rule seems indeed purely seasonal¹⁷. Notwithstanding, the consequences of such a submission may be important in terms of the stability and coherence of the accounting model and often negative economic fall-out.

One must bear in mind that firms are complex entities, which have little, if any, analogy with the financial portfolios of intersubstitutable assets. Firms' assets are simultaneously complementary, specific and indivisible. These three properties subvert the logic of an accounting legislation founded on purely financial principles. In light of

¹⁶ Orléan (1999) develops a theory according to which market financial valuation is fundamentally unstable and self-referential, because of the imitative behaviour of analysts.

¹⁷ Finally, the difficulties for small investors to understand and interpret all these changes will have the effect of either increasing indirect shareholdings (via financial intermediaries) or preventing a correct interpretation of the accounts.

this difficulty, accounting at historical cost takes on meaning. Although it may not be a *panacea*, the principle of valuation at cost seems the least worst possible solution.

III. Using Current Market Prices in Financial Statements

Does the use of current market prices yield a better understanding of the on-balance sheet risks of firms? Empirical work on asset valuation documents recurrent financial anomalies, such as excess or persistent volatility and stock market collapses¹⁸. These empirical observations lead one to turn the argument around and to defend the idea that increased reference to spot market prices risks creating excessive volatility in accounting magnitudes, which might have a multiplier effect on the volatility of asset prices. Based on the whole of the transactions made by the productive entity (Iijiri, 1975; Anthony, 1983), historical cost makes possible an accounting logic which is transparent and independent of market price volatility, an apparent clear advantage.

A) Are Market Prices the Right Benchmark?

Economic research on financial bubbles or irrationalities in stock market quotes pushes one to question the capacity of market prices to reflect the present value of future profits, and this is independent of the problems of specificity presented above. This argument seems to affect historical cost just as much as fair value: asset price variability injects into the initial purchase price an arbitrary component which depends on the acquisition date. It is at the level of the dynamic effects of asset measurement at market price that the dangers of fair value appear.

Thus, accounting and financial history of the last decade shows that a good part of the record losses recorded by firms during the 1990s does not come from the manipulation of accounts by management, but rather from the choice to assess the value of assets held on the basis of their market value. A typical example is office furniture. Its prices saw a steep increase at the end of the 1980s and at the beginning of the 1990s, followed by a steep decrease in the middle of the 1990s. Assessment (by

¹⁸ See Schiller (1989) for example.

the managements of the firms involved) of the current value of their office inventory at market prices led, after the furniture bubble burst, to a complete cleansing of the balance sheet in the form of massive recognition of depreciation provisions. The same mechanism was at work in the case of the technology bubble at the end of the 1990s. *A posteriori*, some firms were seen to have paid too much for their acquisitions. Perhaps one could show that after the bubble burst, valuations were after all fairly close to what would have been expected prior to the bubble. In the meantime, however, the bubble happened. It modified the behaviour of firms and, therefore, changed their overall accounting statements.

This example raises the question of the relevance of asset accounting at fair value rather than at historical cost. Fair value did not provide investors with better information about the risks carried by investments in the "new economy" or office furniture. At the point when the market turned, it led accountants to recognize the depreciation of asset values in the same way, that is, by reference to market prices after the bubble. The only difference in this matter stems from the fact that, according to the method of historical cost, the gap between accounting value and market value could at least stimulate questions and perhaps trigger alarm bells¹⁹. There is thus no ground for arguing that fair value would have performed better than historical cost in allowing investors to anticipate the profound revaluation that followed the crash.

Unless market bubbles are banned, one cannot expect that the incidence of record losses should be reduced by shifting to fair value. In effect, the market is just as responsible for large valuation adjustments as are buyers. Fair value would only serve to transfer the arbitrariness of management valuations over to the market²⁰. In this respect, one is forced to defend the principle of reference to the totality of transactions made during a period by the productive entity as a whole, which enables one best to gauge the capacity of an asset to generate income and the associated risk.

¹⁹ With the discretionary choice of lasting depreciation (the usual rule of *lower of cost or market value*), in the framework of the underlying accounting principles, management chooses the benchmark of reference and the moment at which the depreciations are recorded. In the method advocated by the IASB, the reference to the market is obligatory and the adjustment automatic.

²⁰ Moreover, very often the market price of an accounting asset does not exist. Its valuation is then entrusted by the IASB to the prophetic judgement of certified experts.

Box VI: The Productive Entity and Its Specific Economic Process: Accounting Foundations between Static and Dynamic

The current accounting issues are not new. From the beginning of the 20th century up to the Second World War, great accounting theorists such as E. Schmalenbach (in Germany), G. Zappa (in Italy), A.C. Littleton (in the United States), were aware of the impact of accounting information on investment choices, valuation and representation of the economic activities of the firm.

Struck by the experience of banking crises and the effects of world conflagration by German hyperinflation speculative bubbles and the economic crisis of 1929, they questioned the legalistic soundness of a "static" model resting on a spot market perspective; they developed an innovative accounting perspective, which was later called "dynamic". This dynamic approach based the accounting system on the economic and monetary process implemented in the going concern on which it reports. By its nature, this process must be sustainable, situated and oriented within an uncertain and undetermined horizon.

In this context and up until the present, the spirit of accounting standards lay in the accounting principles of the entity as going concern, matching, and valuation at historical cost. The going concern was thereby clearly distinct from the wealth of its owners and fluctuations of value in the markets, specifically in financial markets.

These ideas fell progressively into oblivion. New journals, new training programmes, new academic fashions launched at the Universities of Chicago and Rochester contributed to this neglect, especially in the United States. As Y. Ijiri remarks, critiques of the traditional accounting model became so virulent that "only hardcore traditionalists seem to uphold historical cost" (1975, p. 85). In the United States, the development of accounting theory without principles²¹ revived the abstract soundness of a static perspective embracing the financial logic of the "fair value revolution".

Bankruptcies and speculative bubbles remind accountants that the goal of accounting is not only to offer signals for financial decision making, but also, and above all, to recognize payment flows in light of conventions, which are binding by reason of their reliability as standards possessing an autonomous logic and designed to mediate conflicts of interest amongst stakeholders.

Thus, the worries of Anthony (1987) are prophetic²²: without principles, accounting rules resemble "cook books" whose clarity, overall coherence and effectiveness are questionable and always under the threat of heavy failure. Since that time, the efforts of the IASB to create an international accounting system based on common principles have been favourably judged. Many observers recognize the quality of technical work provided by that organization. Nevertheless, must this success imply the intellectual suicide of accountants?

²¹ Major accounting theorists disagree on this subject: Y. Ijiri and R.N. Anthony among others. A forceful critique is developed by Kaplan (1983), with reference to Jensen (1983).

²² In this article, as in his major work of 1983, this accounting theorist draws on his experience of several years at the FASB.

This is all the more important when the transition to fair value risks equally amplifying upward market movements in growth phases in stock price quotation and downward moves in contraction phases. In effect, full valuation at market prices would force one to take into account in the income statements any potential capital gain linked to continuing rises in asset prices. Firms whose businesses are centred on activities connected to the bubble would thus recognize increases in their net worth far greater and more rapid than those of firms whose activities are unconnected with the bubble. To all the causes explaining the appearance of financial bubbles, fair value risks therefore adding a new one: the pro-cyclical effects connected to all those businesses seeking to profit from market enthusiasms in order to present flattering financial statements. In rising markets, one should keep a very cool head in order not to succumb to the sirens of ever more flattering (seductive?) balance sheets and ever better results. In these circumstances, there is great danger of witnessing an increase in the scale of financial bubbles and accounting adjustments as a result of a change in the valuation rules for accounting items.

B) Interpreting Earnings

The negative consequences associated with altering the asset valuation rule risk being reinforced by the modification of the accounting base induced by shifting to fair value. In effect, the desire to strengthen the informational character of accounting data brings with it the recognition of "potential" capital gains as an element of earnings or of other equity (including shareholder equity, retained earnings, and/or provisions). In the case of recognition of earnings, changing the asset valuation rule would create a new source of accounting income, not stemming from any monetary flow received by the firm. This constitutes a radical change relative to the principle of historical cost, according to which the published earnings are based above all on the recognition of actual monetary flows²³.

The IASB appears to be partly aware of the issue, for, even in the secondary method of market value, it does not record the losses and potential profits in a symmetric way, and, in general, it avoids passing the latter through the earnings

²³ The income statement does not coincide nevertheless with the cash balance for the period because of depreciations, provisions, and other accruals.

statement. The recording of as yet unrealized profits (potential capital gains) can pose a number of problems. One of the most important is linked to the determination of distributable results. It seems difficult to envisage including potential capital appreciations in these gains without risking disadvantaging creditors and damaging the continuity of the productive entity itself.

The distribution of part of these potential capital gains as dividends can turn out to be largely fictive if the asset value, once realization occurs, is very different from that recognized in financial statements. It will modify the accounting logic, which rests in the first instance on the continuity of the business activity and the maintaining of invested capital, guaranteeing the hierarchical protection of creditors requiring debt repayment and those entitled to share residual profits. Equally, it would be more difficult to determine whether earnings were achieved by the valuation method of accounting items or by the accrued performance of the business. The change of rules for earnings determination could therefore alter seriously the capacity to assess earnings and distributable profit. It might provoke conflicts over profit sharing.

C) Assessing Risk

Recent financial scandals are good reminders of the necessity of better information about the risks taken by firms. Asset recognition at historical cost appears incapable, in its current state, to take account of the financial risks borne by firms, even if these risk exposures may threaten the continuity of their activities²⁴. Furthermore, information about these risks is essential not only to shareholders, but equally to all stakeholders.

Nevertheless, the inadequacies of historical cost valuation in dealing with the specificity of this class of financial assets and liabilities do not necessitate the adoption of the conceptual solution proposed by the IASB to remedy the deficiencies. That solution consists in bringing into accounting those products valued using the method of full fair value. It is unsatisfactory, because there is a conceptual difference between accounting for the going concern and accounting for the risks that the going concern bears. In effect, the accounts are drawn up on a given date in order to give a

²⁴ This is, for example, the case with certain derivative products which mobilize weak financial outflows at the initial commitment, although they create a far greater financial risk.

picture of the “wealth” of the business on that date, whereas the risk profile is often related to possible future variations. One can question, therefore, the relevance of proposing a single set of accounts – the balance sheet – in order to measure the wealth of the business and potential risks of variation. Whether it is inspired by historical cost or fair value, the method of asset valuation does not appear best suited to represent these risks. Other standards and other representations might complete the accounting determination of assets, liabilities and earnings involving the financial statements of firms.

In addition, the solution proposed by the IASB to correct the inadequacies of the existing model creates serious difficulties, particularly in the matter of financial assets, without resolving the problems which already exist. It relies entirely on the spot valuation of assets in isolation (very often at their market values). This solution is the opposite of actual realization of assets and of their role in the economic activity of the entity as a whole. The fall-out associated with such accounting rules is well documented, especially in terms of the volatility of accounting earnings or equity. The more dynamic and systematic aspects of accounting are thereby neglected. The representation of the dangers threatening the continuity of operations and the maintaining of invested capital must be determined at the level of the entity as a whole. Hence, it is appropriate to reflect on the creation of accounting information, supplementing financial statements, and making it possible to divulge such dangers.

IV. Accounting Information and Its Political Economy

A) Management Incentives and Evaluations

The revision of accounting principles and standards naturally modifies one of the valuation criteria of management teams and thus their incentives. The behaviour and choices of managers will not perhaps be radically different, but it should be recognized that the new accounting legislation favours certain choices at the margin, the appropriateness of which merits some discussion.

To the extent that the asset side of the balance sheet is used to estimate the wealth possessed by the firm, and where the expenditures which increase this specificity are only counted as expenses, there are grounds for fearing that the long-

term global effect may be a reduction of the specificity of entrepreneurial ventures. In effect, an innovative industrial project rests on the tacit complementarity of certain assets. The production function of the firm is indeed specific and its valuation by financial markets remains difficult. It seems that fair value may tend to systematic undervaluation of specificity, which is not the case with historical cost. One consequence is that innovative ventures, which are remote from transient fashions, risk being undervalued and therefore penalized.

Just as the income statements are modified by the revaluation of assets at fair value, so their economic significance is obscured. In accounting at historical cost, earnings relate to the income generated by the firm as a whole. It is a measure of the performance of firms as wealth creators. In accounting at fair value, this income is modified by capital gains and potential losses in virtue of the short-term evolution of the value of certain assets. Advocates of fair value see no difficulties in this fall-out: managers whose asset selection is good enjoy potential capital gains, while the others must account for their capital losses. The evaluation of a firm's management becomes that of short-term investment management. This appreciation gives too much weight to short-term market prices in the evaluation of management teams, the continuity of the activity and the development of the potential of the productive entity as a whole. The best managers may even be amongst those who did not participate in the frenzy of the new economy, amongst exactly those who, because of fair value, would have had worse accounting results during that period.

B) A Shareholder-Based Vision of the Firm Inscribed in the Accounts

The introduction of fair value as an accounting valuation method, even secondary, is without doubt part of the affirmation of a shareholder-based vision of the firm. With this valuation principle, financial logic enters accounting with the effect of modifying the valuation of firms and impacting income statements. Fair value tends thus to undervalue the entrepreneurial logic, which is at the heart of the traditional perspective. By contrast, in accounting at historical cost, financial analysis is a distinct discourse which uses accounting data.

It is not self-evident that the dynamic approach of historical cost underpins a model of the firm based on the involvement of all stakeholders and that fair value is the vector of a static model, organized solely for the interest of shareholders. There is no doubt, however, that the logic of fair value, to which the standards of the IASB open the way, would protect shareholders and financial investors, who wish to quantify the risk and return of their portfolios in the most precise manner possible. To put the matter more directly, it is hard to deny that the principle of fair value contributes to increasing the weight of the financial logic in the choices and assessments of management teams.

This text has presented some theoretical reasons which question the soundness of such a development. If the firm exists as a sustainable economic entity, then the accounting system which reports on it ought to be grounded in an independent logic and constitute a source of complementary information. This logic justifies the inclusion of accounting as part of the institutional structure and regulation of production. It can thus protect all stakeholders, including shareholders, and facilitate the efficiency of financial markets.

Conclusions

- Historical cost accounting elaborates an economic logic founded on a dynamic vision of the corporate entity as a going concern. This entity should be considered as a whole and the disaggregated valuation of assets should not take account of the evolution of market prices. In this framework, earnings statements make it possible to assess the net revenues which are distributable and effectively created by the firm.
- The reference to fair value introduces a new and hidden valuation method into the recognition of assets. Its logic, which is essentially financial, leads to the maximal disaggregation of firms' assets in order to estimate separately the contribution of each asset to earnings.
- The conclusion of current research does not show that the method of fair value invalidates the method of historical cost. Recent work on asymmetries of information, complementarity and specificity, argues rather for limiting the principle of fair value. In addition, this method poses important problems of valuation specific to the financial economy. The use of a

valuation model for accounting purposes casts doubt on the reliability of accounts, most notably because of the variability of results in response to minor changes in the hypotheses.

- In addition to this valuation problem, applying the principle of fair value introduces the risk of incorporating financial volatility into the accounts. If excessive financial volatility exists in financial markets, a phenomenon for which theoretical and empirical evidence can be provided, this generates superfluous risk, which tends to reduce the investment capacity of firms.
- Fair value tends to increase financial criteria in the assessment of management teams by financial markets and, therefore, in their appraisals of business ventures. This increase, which is necessarily to the detriment of other criteria, may not protect the totality of stakeholders, including shareholders and institutional investors, in the best way.
- It is difficult to affirm that the net contribution of fair value to the improvement of accounting standards is positive. In the presence of asymmetries of information, complementarities and specificities, the logic of historical cost may be far from ideal, but it appears the least worst solution.

A Commentary on An Economic Analysis of Fair Value²⁵

by Richard Barker

It is a great pleasure to write a commentary on the text by Vincent Bignon, Yuri Biondi and Xavier Ragot. They have achieved a valuable and timely contribution to the current debate on financial reporting. In particular, they present a balanced and carefully argued analysis that achieves three things. First, they set out both sides of the argument, such that neither supporters of historical cost nor of fair value need feel unrepresented. This balanced approach is unusual, refreshing and welcome. Second, they set the role of accounting information in its broader context. They demonstrate that financial reporting is about communicating financial performance, and that the accounts are but one part of the imperfect and incomplete information set that is made available by companies and interpreted by analysts. It is essential to view accounting in this broad context in order that the objectives and achievables of financial reporting can be stated properly and understood. Third, Bignon *et al.* demonstrate relationships between economic theory and accounting. These are of great importance. Accounting is a system for measuring economic performance, and it is essential to understand the economic phenomena being measured and the associated limitations of accounting in its ability to measure these phenomena.

For these three reasons, the analysis of Bignon *et al.* is insightful and stimulating (and a difficult act to follow!). In this commentary, I propose to follow the structure of Bignon *et al.*, discussing aspects of each stage of their analysis. I then conclude with my own perspective. I argue that the analysis set out by Bignon *et al.* leads to a different emphasis on the purpose and process of financial reporting. In short, neither historical cost nor fair value is, or could ever be, a “perfect” system for measuring profit and net asset value, and, as a consequence, we need to shift attention towards a broader information set. Companies and analysts alike need a financial reporting model that helps us to understand the transactions, assumptions and underlying economic forces that lie behind summary financial data.

²⁵ Dr Richard Barker is Senior Lecturer at the Judge Institute of Management, University of Cambridge. He is also a Research Fellow at the International Accounting Standards Board (IASB). This commentary is written in a personal capacity as an independent academic, and it in no way represents an official position of the IASB.

The first section of Bignon *et al.* identifies two common misconceptions about historical cost. First, it is shown that a pure historical cost model is rarely, if ever, found in practice. Instead, historical costs are modified to take into account changes in value, manifested in (for example) depreciation charges or impairment losses. Second, Bignon *et al.* point out that historical cost is not purely objective, but instead subject in part to management choice. An example they might have used to make the point is the accruing of future expenses. In such a case there is no objective cash outflow, but there is nevertheless an expense and a liability under the historical cost model. A further important example is the recognition of gains or losses on the disposal of assets held at historical cost. Evidently there is significant management discretion over the timing of recognition of profit. Hence, historical cost is not entirely objective.

In contrast, Bignon *et al.* describe how, *under ideal conditions*, the fair value model can introduce objective values, determined externally in the market place. This reveals both the current value of the entity's net assets, as well as highlighting the real-world volatilities in economic value that historical cost fails to identify. The most striking example is financial instruments, where the historical cost model can fail spectacularly in measuring the economic performance of the entity.

The qualification "under ideal conditions" is extremely important, and it forms the basis of the analysis of Bignon *et al.*, whose central question is stated as follows (p. 7): "it is unfounded, even dangerous, to rely on a direct transposition of financial principles, such as the principle of fair value for valuing accounting assets. That is because these principles are subordinate to the conditions of validity of the theory of perfect markets".

According to economic and accounting theory, simple relationships between accounting data and economic value are elusive (I have discussed at length links between corporate value and accounting data in Barker, 2002). Bignon *et al.* identify some of the underlying difficulties. In particular, in the absence of complete and perfectly competitive markets, assets do not command unique values, and companies do not earn normal returns. In contrast to certain financial instruments that are traded on deep and liquid markets, many assets have purchase prices that differ from selling prices, and that differ again from the present value of cash flows generated by use of the asset. Moreover, the value of an asset to an entity depends not just on the

market value of that asset, but also on its relationship with other assets of the entity, and also with the ability of management to generate value from the asset.

Bignon *et al.* identify these difficulties clearly, and I agree strongly with most of their analysis. However, I disagree that these difficulties lead us necessarily to the historical cost model. It seems to me that they do not lead obviously to either historical cost or fair value. Rather, they are the intractable difficulties of accounting that cannot be avoided, no matter which model is in play. This is true even if one regards the purpose of the balance sheet as measuring the cost of the entity's assets, as opposed to measuring their value (the difference being goodwill, or equivalently the present value of abnormal earnings, as indicated by Bignon *et al.*). Fair value and historical cost are the same on initial recognition, and both represent the cost of acquiring assets. Thereafter, is the appropriate cost base the historical amount paid or the current opportunity cost of holding the asset? For example, if I am running a café and my value depends upon revenue from customers, is the appropriate cost base the amount at which I originally bought my building or the current value of that building should I wish to sell it? It seems to me that the historical cost model gives an asset value that is not relevant, while fair value is vulnerable to valuations that are subjective and misleading. Neither is obviously superior for all assets. Indeed, in certain cases, such as the valuation of most intangible assets, both models give the manifestly incorrect valuation of zero.

Bignon *et al.* raise the frequently expressed concern that the use of market prices introduces volatility into the balance sheet and, thereby, into reported profit. This is especially problematic if markets are viewed as vulnerable to excessive volatility, which recent experience in financial markets seems to support. It is also troubling if, as Bignon *et al.* argue, there are pro-cyclical consequences that threaten to promote volatility further. These are important issues, especially from a macroeconomic perspective.

Supporters of fair value would respond to these concerns as follows. First, they would argue that the values of some assets are by their nature volatile, and the role of financial reporting should be to reveal this and not to ignore it. In other words, volatility *per se* is not an inappropriate outcome in financial reporting. Second, there is the problem of knowing what source of information could, in principle, be more relevant and reliable than market prices. If the price in the market is the outcome of

competitive trading among willing buyers and sellers, then why is it reasonable to presume that the price is wrong?

Bignon *et al.* might not disagree with these views and might support the provision of fair value information, but they argue that the accounts are not the place in which the information should appear. In addition to concerns about volatility, they point out that, first, distributable profit is not best measured by a fair value approach and, second, asset values alone are not an effective way to communicate an entity's exposure to risk. Although I agree with both of these points, I do not agree that this makes a clear case for not reporting fair values in the accounts for certain assets. The measurement of profit that can be distributed is, in principle, independent of the measurement of aggregate profit – for example, unrealized profit can be recognized and reported, but it need not be classified as distributable. Likewise, the provision of additional information about risk that complements the financial statements does not substitute for measurement within the accounts.

I am not arguing in favour of fair value. Rather, I am arguing that Bignon *et al.* do not, in my view, make a persuasive case why fair value might *not* be more appropriate than historical cost for certain assets. In my view, different valuation models are appropriate for different assets and liabilities. This leads inevitably to a mixture of different types of asset, liability, income, expenses, gain and loss. In turn, this makes it obvious that simple financial metrics, such as profit and net assets, are of limited use. For example, it seems to me that the way to deal with volatility in the market values of assets is through disaggregated presentation, and not by focusing on single performance measures such as profit (Barker, 2004). After all, this is the way that most institutional investors actually go about valuing companies. Viewed in this way, I think that the debate between historical cost and fair value should not be viewed as a battle for the outright victory of one model over the other. Neither is perfect; neither is preferable to the other in all circumstances; and, to be understood properly, both require disaggregated financial and supporting data. In summary, I agree with the following conclusions of Bignon *et al.* (p.24) – “It is difficult to affirm that the net contribution of fair value to the improvement of accounting standards is positive ... (and) the logic of depreciated historical cost may be far from ideal” – but I do not quite agree that historical cost “appears the least worst solution”.

Rejoinder

Richard Barker's commentary presents a stimulating and original criticism of our text. Whereas the goal of our text is to analyse the specific logics of two accounting principles – historical cost and fair value – in order to handle then what appears as exceptions to each of these valuation principles, Richard Barker minimizes the scope of this debate and affirms that the diversity of reasons for holding an asset wrong-foots any wish to impose a single principle. He advocates a disaggregated presentation of accounting information, which would contain elements of historical cost and fair value. This solution is seductive, but it seems to us to involve some difficulties.

In the first place, the reasoned defence of an accounting principle must first recognize and treat certain exceptions. Thus, in the principle of historical cost, the cash equivalents are valued at market prices since they are employed within a purely financial logic. Rather than multiply the valuations of the same asset by different principles, it is perhaps better to choose one single valuation method – historical cost or fair value – according to a clear logic, which obliges the firm to reveal the choices which led it to hold the asset. The risk of disaggregating valuations into different components, which any interested party can recombine at will, is that the business logic which justifies at the same time the holding of the asset and its valuation principle is obscured. To coin a phrase, "too much valuation kills valuation", or "those who take on too much, succeed in nothing"²⁶.

Next, it seems to us that the role of accounting is to provide autonomous reliable information, sufficiently structured to allow relevant use of valuation models. Thus, we are not arguing against the latter, but solely in favour of the acknowledgement that their place is perhaps not at the heart of financial accounting. Other documents might present the results of different standardized valuation models. Here it is up to firms, investors and employees to judge their usefulness.

Finally, Richard Barker seems to accept our criticisms concerning the fragility of valuation models with respect to their verifiability and robustness. His justification of fair value rests rather on the more systematic use of current prices in accounting, in a manner supplementing historical cost. Our text endorses certain reservations regarding the use of spot valuations. This is not just a question of pragmatism. To

²⁶ French proverb: *qui trop embrasse, mal étreint*.

Barker's question "is it reasonable to assume that market prices are wrong?", we would reply by another question: "is it reasonable to assume that current prices are always relevant?". In this respect, the economy teaches us that the conditions of pure and perfect competition are rarely verified and that forecasts are sometimes too volatile, so that market prices may provide bad signals.

In brief summary, our text defends the use of a single accounting principle, historical cost rather than fair value, with the possibility of using other accounting valuations in clearly defined cases and without seeking systematically to increase the use of asset valuation by current prices. To Barker's question "does there exist an information source more reliable and relevant than the spot market prices?", we would like to reply that accounting might provide this source of distinct and complementary information if it keeps its autonomous logic in order to help the formation of prices on financial markets and to enable the verification of market valuations.

References

- Aglietta, M. and A. Rebérioux (2004), *Corporate Governance Adrift: A Critique of Shareholder Value*, Cheltenham, UK, and Northampton, Mass., US: Edward Elgar, to appear.
- Anthony, R. (1983), *Tell it Like it Was: A Conceptual Framework for Financial Accounting*, Richard D. Irwin Inc.
- Anthony, R. (1987), "We don't have the accounting concepts we need", *Harvard Business Review*, January-February.
- Barker, R.G. (2002), *L'évaluation des entreprises : modèles et mesures de la valeur*, Paris: Les Echos éditions.
- Barker, R.G. (2004), "Reporting financial performance", *Accounting Horizons*, June 2004.
- Biondi, Y. (2003), *La nature économique de l'entreprise au croisement des théories économiques et comptabilité* (Ph.D. thesis), Université Lyon-II and Università degli Studi di Brescia.
- Caballero, R. and J.M. Hammour (1998), "The macroeconomics of specificity", *The Journal of Political Economy*, 106 (4), 724-767.
- Cartelier, J. (2004), "Sur les rapports entre comptabilité et pensée économique : quelques observations exploratoires", manuscript, Université Paris-X, January.
- Casta, J.-F. and B. Colasse (eds) (2001), *Juste valeur : enjeux techniques et politiques*, Paris: Économica.
- Colasse, B. (ed.) (2000), *Encyclopédie de comptabilité, contrôle de gestion et audit*, Paris: Économica.
- Colasse, B. (2004), "Harmonization comptable internationale : De la résistible ascension de l'IASC/IASB", *Gérer et comprendre série Annales des Mines*, vol. 74, March.
- Dosi, G. and L. Marengo (2004), "Organizational capabilities, patterns of knowledge accumulation and governance structures in business firms", in J.-P. Touffut (ed.), *Organizational Innovation Within Firms*, Cheltenham, UK, and Northampton, Mass., US: Edward Elgar, to appear.

- Frydman, R. (1982), "Towards an understanding of market processes: individual expectations, learning, and convergence to rational expectations equilibrium", *The American Economic Review*, 72 (4), September 1982, AEA, 652-668.
- Hoarau, C. et al. (2001), *Gouvernement d'entreprise et gestion des relations avec les parties prenantes : information, évaluation des performances, contrôle externe*, Report for the Commissariat Général au Plan, November.
- Hoarau, C. (ed.) (2003), "Dossier Normes IAS IFRS", *La Revue du Financier*, 144, Paris.
- Ijiri, Y. (1975), *Theory of Accounting Measurement*, Studies in Accounting Research, n°10, AAA.
- Ijiri, Y. and J. Noel (1984), "A reliability comparison of the measurement of wealth, income and force", *The Accounting Review*, LIX (1), January 1984, 52-63.
- Kaplan, R.S. (1983), "Comments on Jensen (1983), Organization Theory and Methodology", 319-339, *The Accounting Review*, LVIII (2), April 1983, 340-346.
- Littleton, A.C. (1935), "Value or cost", *The Accounting Review*, X (3), September 1935, 269-273.
- Orléan, A. (1999), *Le pouvoir de la finance*, Paris: Odile Jacob.
- REVUE D'ECONOMIE FINANCIERE*, 2003, "Juste valeur et évaluation des actifs", 71 (2), 294.
- Richard, J. (1996), *Comptabilités et pratiques comptables*, Paris: Dalloz.
- Shiller, R.J. (1989), *Market Volatility*, Cambridge, Mass.: MIT Press.
- Schmalenbach, E. (1926), *Le bilan dynamique*, translated by F. Bruck from the 11th German edition (1953), foreword by André Brunet, Dunod, Paris, 1961. Original editions: *Grundlagen dynamischer Bilanzlehre*, *Zeitschrift für Handelwissenschaftliche Forschung*, Leipzig, 1st edition (1919), 13, 1-60, 65-101; 2nd edition (1920), *ibidem*; supplemented 4th edition (1926): *Dynamische Bilanz*, G.A. Glöckner Verlag, Leipzig, 1926.
- Shubik, M. (1993) (ed.), "Accounting and Economics, Proceedings of the Conference in Honour of the 500th Anniversary of the Publication of Luca Pacioli's *Summa de Arithmetica, Geometria, Proportioni et Propotionalita'*", Siena, 18-19 November 1992, *Economic Notes*, Monte dei Paschi di Siena, 22 (2), Siena.
- Zappa, G. (1937), *Il reddito d'impresa*, Giuffrè, Milano, 1937; 1st complete edition: ALI, 1929.