Book Review

Giuseppe Marzo* Commentary on "Accounting for Value" by Stephen Penman

Abstract: "Accounting for Value" by Stephen Penman is thought-provoking in its challenge to mainstream in both finance and accounting. This fosters a reflection on models and tools employed for valuation. Some points about the book should be underlined. Penman states that he adheres to finance theory principles, but he moves away from them, as he offers a complete reinterpretation of such principles from a fundamentalist perspective. He also puts a distance between the finance theory approach and his own. Value is about business, he says, not about paper. The finance approach is focused on paper (stocks, bonds) and neglects business. Knowledge about business and prudence should be adopted by analysts in order to challenge market prices and find profit opportunities. Accrual accounting should be used instead of the discounted cash-flow approach, he says, and therefore "accounting for value" is not only about value but about accounting too. However, Penman argues, good accounting is not the one currently proposed by accounting standards.

Keywords: accounting, value, discounted cash flow, accrual accounting, finance theory

*Corresponding author: Giuseppe Marzo, Department of Economics and Management, University of Ferrara, Ferrara, Italy, E-mail: mrzgpp@unife.it

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1 Introduction

Market efficiency has been the main pillar of a generalised faith in the markets. Capital markets were believed to show the right way towards resource allocation. Suddenly, a global financial crisis occurred: did the gods fall?

For some, we are facing an economic crisis which is also a crisis of economic models. Market efficiency seems nothing more than the pale myth of an ancient religion. Nevertheless, we live in a market economy, and referring to the market as a reference point for our economic decisions is a natural consequence of it. But what if market prices do not tell us the true value we are looking for? Some agnostic perspectives have been presented against market efficiency. Behavioural finance scholars had already advised us against a too much idealised market (Shiller, 2000). Homo economicus, they say, does not exist. Market efficiency is nothing more than a hope; or a hype, one could add.

Other scholars wait for fallen gods to rise again in a different form, more focused on values grounded in business facts rather than speculative expectations. Among them is Stephen Penman, who has recently published a thoughtful and provocative book, written with a sparkling style that makes it suitable for a large scope of audience: investors, analysts, accounting regulators, academics and practitioners, all equipped with different levels of expertise. The title of this new book is *Accounting for value* (Columbia University Press, 2011).

This commentary proceeds by first giving a broad picture of the book, then focusing on some of its features. Section 2 offers some sketches on the fundamentalist approach to valuation, introducing also the different positions with respect to both finance theory models and existing accounting rules. Section 3 presents the finance ideas that the book finds to be far from a fundamentalist approach and that should, therefore, be abandoned. Section 4 discusses finance ideas that Penman judges congenial to his approach, uncovering some ambiguities in the author's position. Section 5 focuses on accounting for value, clarifying both the essential features making accounting useful for valuation and the weakness of the accounting standards as ruled by standard setters. Section 6 introduces Penman's proposals for a better accounting, and Section 7 concludes.

2 Return to fundamentals

The reader looking at the table of contents clearly identifies in the title of Chapter 1 the *fil rouge* of this book: "Returns to fundamentals". This means, basically, that we have departed from fundamentals. The reason is the cultural predominance of finance theory models that have prompted the development of prominent tools and devices focusing on paper (stocks and bonds as financial securities) more than on business. Such a hyper-real finance (McGoun, 1997) has created a game which is not connected with business facts. Return to fundamentals is, therefore, not only a title but the author's invitation to throw away a large part of finance theory tools.

Chapter 1 serves as an introduction to the other chapters, and in doing so, it offers the theoretical background which the book develops. It is evident that author aims to clarify his position with respect to both the finance scholars' ideas and tools and accounting as promulgated by accounting standards' setters. These are two targets of the author's critique which are interconnected. Finance theory, he argues, does not provide useful tools, and some of its models should be in part abandoned and substituted by others rooted in accounting. Accounting in Penman's view is not conceived as the simple application of standards; on the contrary, the author adopts a very strong position against accounting as ruled by standard setters and proposes his own idea of what is a good accounting model.

The book could be thought of as a manifesto for fundamentalist valuation. Chapter 1 introduces the ten principles for a fundamentals-based valuation and shows the main differences between valuation based on fundamentals and valuation by finance methods and actual accounting rules.

Return to fundamentals is not simply an invitation to refer to the actual accounting instead of finance theory models. Penman's approach is firmly rooted on some founding pillars translated into ten principles. The funding pillars basically refer to the consideration that valuation relates to business and not to papers (as in Penman's view finance models do); information is important against risk; and finally speculation should be clearly identified as a component of price.

Fundamentalist plays against the market, leveraging on business knowledge. His primary concern is not with value, but with mis-pricing. He gains his profit if he is able to find mis-priced firms. Since mis-pricing is so important, the fundamentalist uses two tools: the residual operating income the firm is able to generate over its cost of capital and reverse engineering. The residual operating income reflects the ability of the firm on exploiting its business. It is analysed through the knowledge the analyst must have on the firm's business, and it is employed to forecast the short-term earnings. Reverse engineering is employed for decoding assumptions markets formulate and embed in prices. It is the picklock for discovering speculation and assumptions which are too far from actual and prospective results of the firm.

It is worth noting that Penman's view is quite different from both existing accounting rules and finance theory. Penman introduces the fundamentalist approach marking a large gap with respect to the actual accounting rules. Accounting for value, in other words, does not refer to the accounting developed by the standards regulator. Penman does not hide his critical position against the way accounting is now practised and taught. Accounting for value, therefore, calls also for assessing the value of accounting as we know it.

Penman's position towards finance theory is fussier and more ambiguous. He clearly refuses some ideas developed in finance theory (e.g. the market efficiency principle and diversification as the unique way for dealing against risk) but seems more open to others. However, some ambiguities arise and reveal themselves throughout the book. In fact, despite the declaration that some basic principles of finance theory merit to be saved and mixed with the fundamentalist approach, Penman really re-formulates them, so they become very different from the original. It is the case of the irrelevance of leverage and dividend and the cash-basis approach, which will be discussed in Section 4.

Once the reader has been exposed to all of these criticisms against the current mainstreamed valuation methods and concepts, a pressing question arises in his mind: What should a fundamentalist use to perform his valuation?

The "Accounting approach" is a not surprising answer. But in the view of Penman, good accounting does not coincide with the actual accounting. The book is not a critique of GAAP or of IAS/IAFS. But, of course, highlighting what constitutes good accounting also makes it evident that accounting standards are more or less far from it. Therefore "... a critique is implicit ..." (p. xiv) of accounting standards, while some criticisms are explicitly set by the author, in particular against the incorrect focus that investors, analysts, accountants, politicians, accounting regulators and accounting academics have nurtured in recent years. Penman argues that "We are losing our sense of what is good accounting and what is bad accounting, and even the ability to sort it out" (p. xiv). All of the mentioned actors have shifted their attention from accounting principles to rules and regulations. Accounting is now compliance with rules. Clearly the book promises a different role for a different accounting. Chapters 8 and 9 introduce the concept of good accounting and how it should be used for valuation.

3 Accounting for value and finance theory: the main differences

As for finance theory, the book starts by comparing the fundamentalist's view (i.e. accounting-based valuation) against the finance view. Finance theory, or rather, the financial economics theory born by the Modigliani and Miller papers (1958, 1961, 1963), the no-arbitrage principle and the Efficient Market Hypothesis, is the benchmark used to clarify as to why fundamentalist analysis is different and why the fundamentalist approach is better. Fundamentalists, the author claims, agree with some of the finance theory principles. However, those principles sound very different when handled by fundamentalists. Some basic issues deserve attention and strongly mark the difference between the two approaches.

First, "One does not buy a stock, one buys a business" (Fundamentalist Principle no. 1), Penman says (pp. 6–7). This principle is compared to the basic finance idea that investors buy paper. The basic point here is that the finance approach is oriented to the valuation of stocks and bonds, while the fundamentalist is oriented to the valuation of the business. This is a divide that requires a distinction between price and value.

Prices, Penman says, can be different from values: Price is what you pay; value is what you get (Fundamentalist Principle no. 3, p. 7). While modern finance assumes that the two are equivalent, fundamentalists start from the opposite idea: It is because value and price are different that a fundamentalist can gain some profit. Since price and value are treated as two different terms, the rest of Chapter 1 develops on this idea. The fundamentalist must behave carefully, being "beware of using price in the calculation" of value (Fundamentalist Principle no. 9, p. 20). This new perspective sheds a different light on information. For finance scholars, information is a commodity; for the fundamentalist, information is the device that makes it possible to arbitrage value against price, thus gaining profits. Since information is the device for gains, "know the business" (Fundamentalist Principle no. 2, p. 7) is the mantra the fundamentalist should recite, since ignoring firm-specific information is at one's own peril (Fundamentalist Principle no. 5, p. 8).

In other words, markets are not as informatively efficient as finance scholars assume. In any case, even if markets embedded in prices all available information, the way they would do so is questionable. Despite the great faith that finance has in market valuation, fundamentalists "... do not accept that the expectations of others that go into the price are necessarily those of a rational accounting" (p. 15), Penman says. In other words, different expectations produce different values; but also different valuation methods generate different values. Competition against markets is, therefore, at two levels. The first level refers to the different theoretical models finance scholars and fundamentalists use for their valuation; the second refers to the different knowledge that different analysts have and put into their analyses.

This is why the problem is not only with the "right" information but with the right model. The right model is not the finance model. The Capital Asset Pricing Model, as the representative of finance tools, is a theoretical model which crashes against the rocks of its implementation. To support this critique, it is worth considering that according to several studies, the range of market risk premium, that lies at the core of CAPM, may be very large and vary from 4.5% to 6% (Copeland, Koller, & Murrin, 1991), 6% to 8% (Brealey, Myers, & Allen, 2006), 2% to more than 8% (Jagannathan & Meier, 2002) and -10% to 20% (Shefrin, 2007).

Other approaches that also have been suggested by finance scholars lack theoretical substance, as the Fama and French (1992, 1993) multi-factor model, which identifies the company size and the book-to-market ratio as the best predictors for a stock's future returns. This is the "trap of labeling", Penman says, and "[p]seudoscience merely puts labels on things" (p. 33). Again, resting on predictors of future stocks' prices is investing in paper and not in businesses. The point is not forecasting prices, but determining values. The Fama and French model lacks a sound background theory.

In sum, what started as an apparent quiet comparison of approaches, the finance one and the fundamentalist one, ends up with an emphasis on what is wrong with finance. The analysis of several other issues provides an example of the author's position. The basic finance idea underlying risk management is "diversification". That idea was not a totally brand-new one at the time at which Markowitz (1952) published his paper on portfolio theory: the old common sense adage already suggested not putting your eggs in the same basket. The problem is that diversification is in finance theory, the unique approach for risk management. There are, however, different ways of managing risk, which become clear only if one goes away from the finance approach. Diversification is just one of them, and investing in analysis and developing competences are other ways to deal with uncertainty and risk. Finance is only interested in diversification, but a fundamentalist thinks of diversification as "… a strategy for those who do not know much about their investments, a protection from one's own ignorance"

(p. 19). The best remedy against risk is to focus on value versus price. It is the "margin of safety indicated by value over price" the first protection against risk. Analysis and knowledge are the two weapons a fundamentalist should use against risk.

Again, Penman argues against the formulas and models of finance that while being mathematically sophisticated, they lack the precision that investors crave. Scholars interested in the history of finance find an echo in some papers in the late '60s in the Journal of Finance, when the new way of doing finance (i. e. the one introduced by Modigliani and Miller) was beginning to supersede the old ways (Marzo, 2007). Besides the emphasis on the introduction into finance of analytical tools (mathematics, statistics, operating research and so on) developed during and after World War II (Weston, 1967), the problems of cooperation among academicians from the new and the old schools (Sauvain, 1967), and a growing malcontent began to arise against the trend in finance and in many other branches of economics which seemed to be more concerned with advances in methodological niceties rather than in substantive knowledge (Friend, 1973).

Finally, Penman addresses the finance assumption of the "rational man" (p. 32). The *Homo sapiens* is an intelligent man, as Graham previously said and now remembered by behavioural finance scholars (Thaler, 2000). The "real" man should be at the core of theorising, and therefore valuation models should be tailored on this man. Since an intelligent man cannot forecast the future as his fully rational antagonist could, valuation must be based on heuristics and approaches which are not impossible in their implementation. In this light, the focus on short-term earnings, the refusal of speculation and prudence in valuation are founding pillars.

4 Accounting for value and finance theory: ideas to be retained

Some of finance ideas should be thrown away, Penman argues, and the above section has presented them in a concise way. Others, he says, are acceptable. In Chapter 2, Penman agrees with some principles developed by finance scholars. Despite the bad products developed on their basis, Penman agrees that some of them should be retained by fundamentalists.

However, Penman introduces the basic principles of financial economics just to abandon them as useless or dangerous or to re-formulate from a different perspective. This is why the point is also rhetorical. The author seems to adhere to some basic principles of finance, but this is just a way to present them in a different format. Apparently, Penman's approach is rooted in those finance principles, but in fact it moves very far from them. The principles Penman referred to throughout the book are the following: The no-arbitrage principle; value is based on expected cash flows (prominence of cash flows); value does not depend on dividend pay-out, and finally, value does not depend on capital structure choices.

All of these are discussed as follows.

The no-arbitrage principle (sometimes referred to as the "one-price law") is the cornerstone for finance pricing models. Basically, the no-arbitrage principle states that rational investors (or "shark investors", using Ross's words – 2002) would benefit from any arbitrage opportunity. Reframed in a different way, this means that two securities, or two assets, with the same expected payoff must have the same value (Ross, 1978, 2004). The contrary situation would in fact make an arbitrage opportunity arise, and rational investors would immediately take advantage of this.

The no-arbitrage principle is very important for finance theory, since it lies at the core of that theory. Financial economics developed in fact upon the noarbitrage argument that Modigliani and Miller (1958) presented in order to demonstrate the equivalence between the value of a leveraged company and an all-equity financed company. Such a no-arbitrage principle was further adopted by the two authors in their other papers, even if in different forms (Bresnihan & Boys, 1999), and it is now a fundamental pillar for finance theory. The contingent claims pricing is developed on the no-arbitrage principle, and the new neoclassical finance as Ross (2004) states is based upon it.

Penman does not reject that principle, but the way he accepts it clearly stretches and twists it giving it a completely different perspective. The no-arbitrage principle, Penman argues, that the fundamentalist is interested in, is not between prices, but between price and value. It is clear, therefore, that the no-arbitrage principle the fundamentalist adopts is at odds with the finance principle. At least two points make the difference. First, Penman talks of value and price as two different entities. In contrast, finance theory looks at prices as the correct or fair value of companies. Second, the no-arbitrage for Penman is based on a completely different perspective. The finance approach focuses on prices and assumes that any arbitrage opportunity will be immediately cancelled by investors' behaviour. Because of this, finance markets are arbitrage-free, since if an arbitrage opportunity arises it is instantaneously absorbed. Penman, on the contrary, focuses on value and claims that profits can be made by arbitraging values against prices. In Penman's view, therefore, arbitrage opportunities exist and are persistent enough that a fundamentalist can make a profit from them.

A similar position is presented for the cash-basis valuation principle. According to this principle, the value of the firm is based on discounted expected cash flows. It is, however, curious to observe that while the cash-based value is considered consistent with the fundamentalist approach, the author accepts it as a principle, but soon leaves it due to some implementation problems (it will be discussed in Section 5). While cash is assumed important for valuation, Penman soon abandons cash in favour of business income to the firm as represented by accounting.

The third principle of dividend irrelevance and the way that it should be retained by fundamentalists has only a vague distinction with the principle developed by the finance theory. The irrelevance of dividends, as modern finance claims, dates back to the work by Miller and Modigliani (1961). In that article, the argument supporting the thesis was a typical arbitrage approach, net of any differences in tax rates on dividends or capital gains.

Miller and Modigliani (1961)'s interest was in the equivalence between value and price. The irrelevance supported by Penman is instead based on the gap between price and value. According to Penman, the dividend payment reduces the price one-for-one under Miller and Modigliani theorem, but also it reduces book value one-for-one: When \in 1 of dividend is paid out, both price and book value decline of the same amount. Since the fundamentalist is interested in the gap between the two, her position remains unchanged. Saying that the dividend pay-out is irrelevant in the finance world is therefore something different than saying it in the fundamentalist world. There is a problem of value; and here is a way to maintain the gap between price and value.

There is a clear difference between the Modigliani and Miller theorem and the Penman approach to the dividend irrelevance. In the Modigliani and Miller theorem, the equivalence between value and price is taken for granted thanks to the perfect markets they assume. In real-life capital markets, however, things could work in a different way (Brav, Graham, Harvey, & Michaely, 2005). First of all, dividends could be taxed differently than capital gains, and therefore the choice of distributing dividends could impact on the fiscal charge of the recipient and on the preference he gives to either the dividend or the capital gain (Miller, 1986; Shiller, 1986). Second, dividends can be used as signals sent to the markets. A reduction of their size can be interpreted as a bad news, while a constant flow of dividend can positively impact on the way a company's risk is perceived by investors (Shefrin & Statman, 1984). Finally, firms can retain dividends in order to dispose of internal sources of funds, as in the pecking order model (Myers & Majluf, 1984). One could be surprised by the fact that Penman does not consider these issues in his approach. Why does he maintain the dividend irrelevance even if prices can be impacted by a firm's dividend policy? The answer is surely evident. In our opinion, Penman is interested in price as something to be challenged. He does not say that dividend policy is irrelevant for price, but just for value. And he rests indeed on the consideration that only profits generation is important, not the way those profits are distributed.

Finally, the principle that borrowing does not add value clearly refers to the Miller and Modigliani work (1958), but again with the particular translation that the fundamentalist's perspective gives to the finance theory approach. In fact, the irrelevance of capital structure choices is based on the arbitrage principle making equivalent the values of two firms with different capital structures. The mechanics for this is the way risk is distributed among fund providers, since the greater the leverage, the riskier is the value of shares. The relevance proposition holds under the assumption that capital structure choices do not affect operating cash flow (Brennan, 1995). In the Penman book, the principle is stretched, since he considers that operating income should be used for valuation, instead of the net income, in order to isolate the effect of borrowing (Chapter 4). Penman's goal is to avoid inflating the estimation of value. In fact, financial leverage effect operates, by increasing net income when the cost on debt is lower than the operating profitability of the firm. While the two positions, the Finance theory and Penman's one, seem consistent, there is a strong difference. In the Miller and Modigliani approach, capital markets are perfect. The irrelevance of capital structure rests on the discounted value of expected cash flows and on the no-arbitrage principle. In Penman's approach, the financial leverage effect rests on the mechanics of accounting. The true interest of Penman is to avoid the risk deriving from the inflation that financial leverage generates on net income.

5 Accounting for value

5.1 Accruals or cash flows?

In presenting the accounting approach, Penman starts step by step with the valuation of a risk-free bond. His goal is to adhere to the finance principle that value is based on expected cash flows. This principle, is good in theory, however, can be only poorly implemented. Decision-makers with limited knowledge and bounded rationality cannot forecast all cash flows expected over the life of the enterprise, and therefore, the use of free cash flows (FCF) does take us far away. In fact, once capital expenditures are subtracted from cash flows of operations, negative FCF are determined which are useless for valuation. Therefore, "[u]sing FCF in valuation is not only odd, it's perverse" (p. 47). Accrual accounting helps, since accounting earnings allocate capital expenditures over periods of time according to the matching principle, and the same does for all of other cash flows. Summing up, value is based upon expected cash flows, but accrual accounting is the heuristic that the intelligent man can use in real life. In other words, one can build up the best and most elegant models he can think of, but to be useful they should take into account real life. Furthermore, they should include the real firm that runs the business over time that accruals are designed to represent and control.

Here, it is worth noting that Penman's view is implicitly consistent with costbased accounting. In his views, accruals in fact mainly refer to a historical-cost model, where the cost of an asset is reallocated over time against future cash flows. But why is accrual accounting better than DCF? A clear rationale for accrual accounting is not offered by the author, but some reasons can be inferred First, there is the practical problem. If one works with DCF he must estimate a terminal value, and such a value can impact on the final result of the valuation (p. 44). Again, DCF operates by subtracting cash outflows (i.e. investments), and this could produce a negative cash flow which is hard to interpret. This, Penman says (p. 46) "... is odd because investments are made to add value, not reduce it." On the other hand, FCF increase when liquidating a firm. Accrual accounting, the author says (p. 48), anticipates future cash flows, which also take into consideration costs without cash outlays, as for employee stock options. His rationale for using accrual accounting mainly refers to problems with implementation of DCF more than to an alternative theoretical background. Even the way DCF and accrual accounting record stock options could be a self-serving example, if one recalls that not only out-of-pocket but also opportunity costs must be considered in the DCF model (Brealey, Myers, & Allen, 2006). Another issue to be considered regarding the supremacy of accruals over DCF is related to the risk of speculation and the particular perspective the author takes, since DCF seems to the author too open to speculation. Anyway, according to the author's position, the problem is not the model per se, but the way it is applied.

5.2 Residual operating earnings and the cost of capital

Accrual earnings is the basis for valuation, but what kind of earnings should be used? Net earnings, Penman says (p. 90), are not adequate. They suffer, since they consider the effect of capital structure choices. It is a common issue that leverage can increase the return on equity. In order to offset the financial leverage effect, the fundamentalists should focus on operating income (Chapter 4). This has two advantages. First, it is free of the effects of financial decisions. Second, it specifically refers to the business; and business is what a fundamentalist should be interested in.

Another fundamental pillar is that earnings are not earnings at all! What really counts, Penman continues, are residual earnings, where "residual" means that they are the earnings from operations minus the cost of capital (or the minimum rate of return required) on net invested capital. Here is a potential pitfall of the book. Since valuation depends so heavily on residual earnings, the minimum rate of return required on net assets, *r*, should be carefully determined. Let us consider that residual earnings could be null or negative even in the case of positive accounting earnings, depending on the rate *r*. The mechanics Penman uses for the calculation of that rate consists of adding a risk premium to the long-term bond rate. Chapter 6 clearly addresses that point, but without suggesting any "how to do" theories. It is full of interesting ideas about how it is important to take into account uncertainty, but it says nothing on that point.

In the section "Finessing the Cost-of-Capital", the author says: "... the fundamentalist approaches the market, not with a precise cost-of-capital in mind to challenge the price, but with the question: What is my expected return to buying at the current market price?" (p. 131). Again the reverse engineering can be applied, starting from market price and the accounting-based formula. Such reverse engineering, however, also reverts the variable r, which was an input data in the previous chapter and is now the output.

It is noticeable (see the quoted sentence and the rest of book, of course) that the author insists on the concept of "precision" as if he was willing to stimulate a subliminal comparison to "relevance", but recognising that a few basis points in the cost of capital can dramatically change the calculated value. Penman emphasizes that sophisticated models do not protect against bad outcomes. But the reader could be worried that too much reverse engineering could lead to parametric solutions that make things more complex and undefined. In the basic formula Penman proposes, at least two variables, r, and the expected growth rate, g, must be determined. If one uses reverse engineering to test the growth rate implicitly embedded in prices, as the author suggests in Chapter 3, rmust be determined as an input variable. On the contrary, in order to know the expected return to buy at the current market price, g must be set. Knowledge of the business could support the determination of g, beyond the possibility of using the GDP growth rate as a benchmark. In any case, one should have some model for determining one of the two, or both, and the lacking of such a model is clearly a problem (Biondi & Marzo, 2011).

5.3 Knowing the business

Knowledge is important in the author's thought: "Know your business" appears to be his credo. But the way knowledge can be used for deriving numbers or models for valuation needs to be further investigated, since the author only rests on accounting figures to present this valuation approach. Knowledge is not the simply Bayesian updating of previous information. In fact, in the presence of interpretative ambiguity, people tend to use beliefs in order to clarify or complete information. This way knowledge grows autonomously from information, and knowledge (belief) is used to interpret incomplete information (Fransman, 1994). So knowledge is open-ended, while information is closed-ended.

Knowledge cannot be presented under a short formula. However, being silent on the kind of knowledge an analyst should use for valuation and on the way he would do it can potentially generate the risk to ground analysis on accounting numbers more than on business knowledge. The *ad hoc* cases Penman chose for supporting his theses are introduced and discussed on the basis of accounting figures more than on business knowledge. Demonstrating how business knowledge can help fundamentalist would have been more fruitful for the reader. Resting on accounting could only generate some confusion, as throughout the book Penman advises the reader that accounting truth is not the "real" truth one would expect to know. After all "... residual operating income is an accounting measure, so it depends on how the accounting is done" (p. 104).

Moreover, the author often refers to aggregate data more than to firmspecific knowledge. For example, he recalls that rates of return are expected to revert towards the mean in the long run, when the competitive advantage period of a firm erodes. Simulation through reverse engineering is a way to challenge market participants' estimates. But when will such a long run be achieved? The "long run" is a rhetoric concept more than a date. "In the long run, we are all dead", Keynes said. Nevertheless, for those that in the long run will be still alive, what average growth rate may they find?

Clearly, the main concern of the author is moving away from speculative value which is not grounded on what you know but on speculation (Fundamentalist Principle no. 7). His defensive approach is to be cautious and prudent. Nevertheless, such an approach could generate some counterintuitive effects. For example, the author's defensive focus is on short-term earnings more than on long-term growth. However, relying on short-term earnings may not be the right thing, it they were abnormal by chance. Knowledge should, therefore, help in the difficult task of discriminating between the various conditions. The way forward is to be discovered case by case.

5.4 Growth, speculation and risk

A great concern of Penman is about speculation. He is against speculative value, or to say it better, he criticises all valuation methods (developed within the finance theory) that push valuators to consider growth as being always possible and, in any case, free of risk. At least three Chapters (Chapters 4–6) focus on growth as a potential risk driver. Penman carefully argues that many kinds of growth exist, not all of which add value. Only growth that increases residual earnings adds value, and in any case at some price: a larger risk. In particular, he is interested in demonstrating that the apparent growth determined by financial leverage is unreal. Growth should be one of the first concerns for fundamentalists: Beware of paying too much for growth, states the Fundamentalist Principle no. 8.

That growth adds risk is, however, controversial. While growth usually calls for investing new resources at some degree of risk, a larger size can help companies to make their results more stable. Some competitive advantages, in fact, are clearly determined by the large size of a firm. The point could be somewhat reframed considering that growth calls for funding, and if new debt is used, then the firm is potentially riskier than before.

How to make a distinction between bad and good growth is still a mystery, however, as Penman does not clarify this point. It could be argued that considering growth as always bad is not so different than considering it as being always good. Some suggestions would have been useful in order to make such a distinction. Again, here is the echo of the prudent approach a fundamentalist should implement. Growth modifies things, and such changes could lead us far from the actual results. The short termism a fundamentalist must adopt is clearly consistent with the suspicion the author feels against growth.

5.5 What do losses imply?

Penman's conservative approach also reflects the accounting model he proposes. Such a model is a kind which deserves much more attention to the peril of paying too much than to the opportunity to have a great deal. This probably leads to unanswered questions with respect to the valuation of firms which do report losses. How these firms could be valued is not fully explored. If one should use accounting income in order to focus on the short term, he could end with the conundrum of finding out a value when income is negative. The two points seem completely at the odds in Penman's approach. Caution for paying too much for growth clearly translates into the fear of paying too much for a firm reporting losses. The two situations are clearly similar. In general, one could oscillate between two poles. One could maintain the basic accounting model the author develops and apply it to forecasted figures. This would place him in some trouble with respect to the fundamentalist principles, although would give him what he was looking for. On the other hand, he could decide to fully adhere to the fundamentalist principles, so searching for other investment opportunities.

5.6 Looking for residual earnings

Chapter 5 deals with the kind of growth, in residual earnings also, deriving from the way accounting is done. This chapter still underlines the particular position of the author on the assumed objectivity of finance with respect to the subjectivity of accounting. Accounting numbers do not tell the truth. Truth does not exist by itself, of course; and accounting creates its own reality as for the results a firm has obtained. Accounting figures are "real" only within the particular set of accounting principles and standards used for their determination. This means that, firstly, one should not consider accounting figures as truth; secondly, one should think of what good accounting is like.

Penman compares conservative accounting to non-conservative accounting and argues that a simple modification of the valuation formula can offset the differences generated by the two systems. The readily available remedy, however, does not make the author uninterested in what a good accounting should be like. Chapters 8 and 9 deal with this issue.

6 Towards a good accounting model

Accounting is today at the odds with the principles of good accounting, Penman preaches. There are several reasons for this, which refer to both losing any idea about what a good accounting should appear like and the flaws in accounting standards. While in Chapters 2–7 Penman has presented his idea of good accounting, some insights are offered in the last two chapters for the comparison of those ideas to accounting standards. There are two streams of remarks, which refer to fair-value versus historical accounting, and, respectively, to the prominence of the balance sheet over the income statement. Of course, the two are interconnected.

6.1 Against fair-value accounting

Recent years witnessed the rise and fall of fair-value accounting. Welcomed as the best tool for an investor's sound decision-making (Hitz, 2007), it has been

under attack for its procyclical and perverse effects on crisis (Bignon, Biondi, & Ragot, 2009).

Clearly, comparing fair-value to historical-cost accounting seems a battle already lost. In economics and in finance, words are value-laden (Frankfurter & McGoun, 1999), and they exercise a relevant power on accepting ideas. So, how can you dare comparing "historical cost" to "fair value" and still continuing to think that what is "old", "antiquated", "outmoded" is better than what is "impartial", "rational", "unbiased", "just"? Despite such appearance, fair-value accounting is far away from good accounting, Penman argues. His position is supported by a list of criticisms against it, which find their reasons in the market and the firm functioning.

Fair value finds its justification on Efficient Market Hypothesis (p. 170). "Fair value accounting pulls the information in prices into the accounts immediately", Penman states. Nevertheless since markets seem to be not as efficient as theory assumes, fair value itself should be not so fair. The fundamentalist principle no. 9 preaches: "When calculating value to challenge price, beware of using price in the calculation." Clearly the use of fair-value accounting is at the odds with the fundamentalist Decalogue. If the fundamentalist goal is challenging price, he cannot rest on price, he needs information which is different than that embedded in price.

From this perspective, fair value increases the systematic risk due to feedback loops that can add crashes to crashes, he says (p. 177). When fair-value accounting enters financial statements, the risk borne by investor increases. Two reasons support this sentence. First, "leverage ... is no longer leverage against hard assets, but leverage against expectations." (p. 178). Fair value puts ambiguity in a firm's performance. Since fair value embeds expectations, leverage is no longer against hard assets, but against expectations. The reader would immediately agree in the case an increase of fair value would increase the value of firm's assets. In this case, in fact, a large part of debt would be secured by soft expectations more than by real hard assets. But Penman argues that it happens also in the opposite case, when fair value falls, if firm's debt is fair valued on declining estimates on credit worthiness. The reported firm's position clearly deteriorates.

A comment could be here added, considering that the calculation of leverage based on market values is the typical approach adopted by finance and that the fair valuation of assets (according to the three levels of fair value) echoes that perspective. It has been noted (Barclay, Morellec, & Smith, 2006; Marzo, 2012) that adopting the market value of equity for the calculation of the firm's financial leverage can produce ambiguity and perverse effects. A value-based perspective in the calculation of that ratio is closer to the way value can be distributed among financial stakeholders (in a liquidation) more than to the sustainability of debt (in a going concern) (Marzo, 2012). Penman offers a similar view. Moreover, fair-value accounting invites distribution of unrealised earnings. Fair-value accounting generates "paper" profit, i.e. profit that is still unrealised although recorded. Expectations can artificially inflate profits, so stimulating the distribution of unrealised value. A possible solution could be to create side pockets until uncertainty on those recorded profit will be resolved (p. 179), but in Penman's view the right solution is to abandon fair-value accounting in favour of historical-cost accounting.

Criticisms against market efficiency apart, Penman also underlines that fairvalue accounting serves self-interested managers (p. 173). Fair value, with its three levels of implementation, allows managers to put their estimates in financial reporting. Of course, the expectations of managers are important for all of those interested in a firm's valuation. However, those expectations should be left apart from accounting, not embedded in it.

One could agree or not agree with the above remarks. After all it seems that much of the debate on market efficiency rests on a question of faith more than on question of facts. A sounder reasoning is, however, proposed by Penman, on why historical cost, and not fair value, is more suited for firms. "As exit prices, fair values are liquidation values, typically reported when a firm is failing. Going-concern value is quite different; the exit price for an on-going business is the price it can sell its product for after adding value through the business process – revenues in the income statement" (p. 176). Fair-value accounting is not able to correctly identify margins gained by an enterprise, just because those margins uncover themselves only when selling prices are compared to historical cost. The fair-value adoption generates anticipation and deferring of revenues and expenses which make it difficult to understand which is the current profit realised by an enterprise.

The point is a good one, since it refers to the economics of the firm. While all of the other criticisms against finance and accounting standards draw on the role of either the inefficient market or the rationally bounded man, this insight is strongly linked to the way one expects a firm to generate value. Traces of a similar position, but with some ambiguities, can be now found in the IASB proposal of adopting fair value according to the business model of the firm.

Penman's position is clearly addressed. In a few words, fair-value accounting is not adequate for the going concern, since its use denies the going concern. If you are interested in valuing a going concern, fair value is exactly what you do *not* need. Historical accounting, says Penman, is what an investor needs. Historical accounting does not mix facts with expectations. It is against speculative value, since it records earnings only when realised. Finally, it adheres to the way value is generated by the going concern. The example Penman presents (p. 175) is clear enough to understand the paradox the fair-value accounting can generate. If a steel maker firm has a pile of coal, would it get better if the coal price increased? Fair-value logic would suggest yes, since the fair value is now higher than before. But, Penman argues, fair value is an exit price, i.e. a good reference point for whom selling coal. The steel maker, instead, uses coal in its production process, and a higher price means higher costs in the future, and therefore lower profits.

Here, a different logic is presented by Penman as for the conception of firm. The conception of firm at the core of FASB/IASB is similar to a nexus of contracts signed with market more than to a system of resources and people. In the first case, the value of the firm is the sum of the value of its assets, this being simply their market value.

According to the different conceptions of the firm Penman evokes, the value of any asset has to be determined in relation to the system of assets and resources it belongs. Paradoxically, a specific resource supporting a firm's value generation could have a null value for the market (Denrell, Fang, & Winter, 2003). Economics of firm is different than the economics of market (Biondi, Canziani, & Kirat, 2007). Fair value neglects this profound difference, and it can generate bad effects, without supporting investor decision-making. Only firms for which the one-to-one principle holds should adopt fair value. That principle indicates the situation when the shareholder value moves one-to-one with the market price. This is the case of speculator, for example, or share trader.

6.2 In favour of historical-cost accounting

Once fair value has been criticised and identified as the potential source of problems and ambiguities, historical-cost accounting rests the more suitable alternative. Penman is aware of the criticisms many authors have addressed against historical accounting for it being backward looking and for leaving some important assets (the intangible ones) outside the balance sheet; therefore, he tries to offer some considerations to support historical-cost accounting.

Providing that there is no growth in unrecorded intangible assets, the omission of value in the balance sheet is completely offset by the omission of value at the end of the period, and therefore the error cancels, and the stock return can be calculated as the earning plus the change in the price over the book value for the earning period (p. 180):

Therefore, "... it does not matter if intangible assets are missing from the balance sheet if earnings from those intangible assets are flowing through the income statement" (p. 181).

However, such an approach risks generating some problems, for three reasons at least. First, the way Penman supports historical-cost accounting may generate some anxieties against it, since the cancelling error principle only works for firms with no-growth assets. This is certainly the case of some firms, but it cannot be generalised. One could eventually accept little un-cancelling errors for firm with growing assets, but perplexities still remain.

Second, the un-recording of some assets (e.g. intangible assets) comes more from the conservatism principle more than from historical-cost accounting. One could still base his accounting on historical cost but record intangible assets at their cost, providing the usual amortisation process. This possibility would open the door to the introduction of assumptions about future in the financial statement, but still resting on historical cost. In order to prevent the distribution of unrealised earnings, the distribution of the part of earnings generated by the capitalisation of intangible assets could be forbidden.

The third reason refers to the examples Penman uses for illustrating the cancelling error principle. Microsoft and Dell appear to be two valid cases, since one could argue that if the principle holds for such intangibles-intensive companies it can be universally employed. The two examples suffer, however, from putting a required return without any specification of why the number employed is the right one. In the case of Microsoft, Penman adopts a return of 9% (while it is 10% for Dell). The Microsoft equity value (in the fiscal year ending June 2008) is the sum of enterprise value and the value of available cash (\$23,662 million). Enterprise value can be determined summing the book value of net operating assets (\$12,624 million) with the discounted value of the residual income expected in 2009. This latter addend is calculated discounting as a perpetuity the excess of 2008 operating income (used as a proxy for the operating income expected in 2009) over the cost of capital, calculated employing the 9% rate against a net operating capital of \$12,624 million. The presented value of such a residual income is performed at the 9%. The final value is \$210,718 million, or \$23.03 per share, which is very close to the \$25 per share at which Microsoft was traded during that period.

Nevertheless, a perplexity arises. Assuming that the robustness of the calculation is measured by its closeness to the market price (I will come back on this point later on), the obtained result is determined in large part by the rate of return Penman adopted. With a rate of return equals to 5%, 7%, 11% or 13%, the value per share would be \$39.38, \$28.87, \$19.31 and \$16.74, respectively. How can we be sure that the rate of return Penman adopts is the right one? The role of the rate of return is really the focal point of the model (and this commentary focused on the problem of its determination also in Section 5). Different rates of return give different results. How choosing the one to which investor decision-making can refer?

Paradoxically, the path Penman opens is not acceptable. Referring to the result of his calculation, Penman says: "... although considerable value is missing in the balance sheet, the accounting that includes earnings explains almost all the value that the market sees in its \$25 price." In order to choose the right rate of return, should the reader rest on the convergence of the calculated value with the market price? A positive answer cannot be given to this question except in the case where one desires to abandon fundamentalist principles Penman has though throughout the book. Fundamentalist must challenge market price, and doing so he must beware of using price in calculation. Now price is outside the formula, but it enters the result as a reference point. Using price as a control for his own valuation seems at the odds with the fundamentalist approach.

Moreover, fundamentalists should feel worried if the value he calculates falls very close to the market price. In this case, in fact, there would be no stance for arbitrage nor for profit.

Really, the reader is left without any model that could help him finding out the rate of return he can use for challenging market price.

6.3 A renewed interest in income statement

The second criticism addressed towards accounting standards is related to their focus on the balance sheet. Accounting standards setters have pushed the idea that only the balance sheet matters. This is because fair value seems so useful. Fair-value application reduces the gap between market and book value, so generating the illusion that financial statements are now reliable, since they report the true value of the firm, the one formed in capital markets. The Market-to-Book ratio should not be thought of as a gap that should be closed. Nevertheless, many researchers clearly focus on that gap as a symptom of inadequate financial statements. For instance, many researchers interested in Intellectual Capital and intangibles share the idea that the gap between market and book values should be filled in. "A sign of the loss of relevance of accounting information is the increasing gap between the market value and the book value of equity of companies in financial markets" (Cañibano, García-Ayuso, & Sánchez 2000). But market value refers to the firm as a whole, whereas the balance sheet shows the value of single assets (Walker, 2009). Moreover, many

other reasons could be listed for that gap to remain, according to the theory of the firm one chooses to refer to (Marzo, 2013).

As Penman says "... there is also an income statement and accounting for value employs both the income statement and the balance sheet" (p. 180). Once the importance of the income statement has been recognised, searching for good accounting does not end either in fair value or in the balance sheet. What an investor needs, Penman argues, is a renewed interest in the income statement.

This position is very close to the Italian accounting tradition developed at the beginning of 1900s by Gino Zappa, the founder of *Economia Aziendale* (Zappa, 1937; Biondi, 2002; Canziani, 2007). According to his vision of the firm as an entity, the income statement is more important than the balance sheet. Income is the results of the system of resources that identifies the firm. Balance sheet is an operational way for suspending costs from the determination of the income of the period, since they do not find in the same period their matching revenues. Therefore, the balance sheet plays an ancillary role with respect to the income statement. Income expresses the dynamics of the entity-firm as a coordination of revenues and costs. It is not income deriving from capital, as in the Hicksian approach, but it is the value of capital coming from income.

Along a similar vein, Penman argues that "Individual assets and liabilities cannot have stand-alone fair values, nor can the sum of fair values express the value of using assets together" (p. 186). Working on the balance sheet only will add little value to accounting. The income statement calls for being considered as an important tool for valuation.

6.4 Adding value to accounting

Now that the position of the author with respect to the two important topics of fair-value versus historical-cost accounting and to the role of income statement has been presented, a final question arises: How to add value to accounting? Chapter 9 is devoted to answer it.

Penman articulates his thesis around two steps. First, he demonstrates that investing in good accounting is still useful. Finally, he proposes some ways for improving accounting.

Penman presents two studies showing that markets naively use accounting information. Besides some features of the human beings that trap them in habits and routines, this is probably due to the fact that actual accounting is not so very useful for investment decisions. This is why adding value to accounting is possible and also due. According to Penman's view, the nowadays practice of accounting has become a matter of mere definitions of accounting phenomena and application of those definitions. "Foundation principles are important, of course, but determining accounting on the basis of how it conforms to accounting definitions can lead to accounting standards that read much as a thesaurus: accounting references themselves." Penman argues (p. 192).

What would really help, Penman says, are at least five principles referring to both the balance sheet and the income statement. "First, the balance sheet that anchors the valuation must be 'hard'. ... Second, the income statement must anchor the forecasts of near-term earnings ... Third, both the income statement and balance sheet must distinguish between operating activities and financing activities. ... Fourth, conservatism applies ... Fifth, 'below the line' disclosures focus on information, excluded from accounts, that assists investors in their speculation" (pp. 196–198).

Application of the five principles to both the balance sheet and the income statement are very interesting. Here, some examples are given.

According to Penman's view, the balance sheet is not as close to the shareholder's view as it is supposed to be. First of all, it does not clearly distinguish between debt and equity nor does it report the total cost of borrowing, as in the case of convertible debt. Second, the balance sheet does not provide a clear distinction between financing and operating activities. The short versus longterm perspective the balance sheet actually supports is of some interest for creditors, but not for shareholders.

Historical cost focusing on transaction with impairment of the carrying amount in case of expected losses makes the balance sheet harder, Penman says. Finally, referring to transactions (the basic unit of analysis of historicalcost accounting) hinders managers from putting their self-interested expectations in the balance sheet.

The regained relevance of the income statement also calls for thinking about how to improve it. Despite the common wisdom that the balance sheet is deficient, Penman argues that the income statement is, because the five or six line items it is made of are not enough. A lack of transparency is, therefore, at the stake.

Moreover, revenues recognition under GAAP is not particularly adequate for complex arrangements in which many companies are involved, thus giving managers large room for manoeuvring. A transaction-based approach can help as a remedy. This way both the balance sheet and the income statement are made harder.

Accounting rules should clarify the sustainability of profit margins. Now, on the contrary, managers have the possibility to write down and restructure on their arrival just to report higher profits later. Conservatism is important in Penman's view. However, he says, "Excessive conservatism – sometimes called discretionary conservatism – is as much a problem as no conservatism at all" (p. 205). Excessive conservatism is, however, difficult to contrast. Therefore, a couple of solutions could be adopted. First, a "quality of earning" statement of management could help to assess the effects of accounting choices. Second, write-down could be capitalised and then amortised over the next periods in order to smooth income.

7 Conclusions

Accounting for value is a very fascinating title. Taken on the whole, it focuses on the way the value can be calculated. On the other side, it puts together the term "accounting", which refers to the role and the use of financial statements, and the way they are prepared, and the term "value" which is an important concept in economics and finance.

Certainly, the book assigns a strong emphasis to the role of accounting for valuation. Nevertheless, a title more centred on the book's contents would have been "Accounting for mis-pricing". If you are interested in the way you can calculate the value of a company, you should know that this is not exactly what the book provides. Once value and price have ceased being the two congenial twins the finance theory assumes, they become the two competing figures fundamentalists look at. The fundamentalist goal, as the book presents it, is not about finding the "true" value of an enterprise. The goal is to challenge market price. This is a battle against Mr. Market, as Penman says (p. 66) recalling Graham. And in order to win that battle it is not necessary to know the value, but to understand if market's price embeds some speculative valuation of which the fundamentalist can take benefit.

The investor's fight against the market can be engaged using "reverse engineering" (p. 69) as a weapon. Fundamentalist should not be concerned with value. A "true" value cannot be determined through finance theory models, nor through accounting. But the strength of market prices can be tested starting from the basic accounting valuation formula (Chapter 2) in order to answer questions about the implicit estimates embedded in prices. For instance, one starts by calculating the value of a company assuming no growth, and then results can be compared with the market price in order to derive the growth rate implicit in the price. Consistency of that rate can then be considered, according to knowledge about business.

Such an approach is presented in a very consistent way throughout the book, even if some points seem to be still unresolved. Penman does not clarify how to determine the rate of return for assessing the adequateness of market price. He suggests that CAPM is not a good tool, but unfortunately he does not offer any alternative model. As said above, reverse engineering can help in deriving the rate of return assumed as fair by market participants, but if the growth rate is different than zero a unique answer is not available and parametric solutions are of little help (see Section 5 for a discussion on this point).

In some parts of the book, the author seems entrapped by the necessity to justify accounting-based valuation. In this case (see Chapter 8, for example) the market price that should be challenged becomes the reference point for controlling the validity of calculation performed through accounting numbers. This problem is an obvious legacy from the lack of any alternative model for determining the right rate of return to be used in discounting residual earnings. Since such a model is not available, one cannot trust his results, as these are sensitive to the rate employed (see Section 6 for a discussion on this point).

Despite these criticisms, the book is very rich in suggestions far from both the finance mainstream and the accounting standards now ruled, and it is, therefore, of interest for a large audience. Some final words to conclude this commentary are, however, necessary. The reader educated in finance theory may eventually feel perplexed and frustrated by the main conclusions reached. To sum up, cash-flow valuation is good in theory, but accrual accounting is best in practice; price and value are at best uncongenial twins; valuation is not for determining value, but mis-pricing; growth is risky and sometimes only illusory; risk must be accounted for, but a model for doing it does not exist; and finally, accounting does not tell the truth, but the lies it tells can be offset. Of course, the fundamentalist approach is different from the finance theory approach despite some of the finance theory principles which are retained by the author.

On the other hand, accountants will be probably offended by considering that good accounting is still far away from the accounting they use and teach. Accounting standards are not free of flaws according to Penman's view, and investing in compliance with accounting standards is not a job an accountant should do.

The feeling is, however, that after the first uncomfortable days spent with the book, the reader would find some interesting and thoughtful insights deserving attention: A distinctive position on valuation, which is based on carefulness more than on mythology; the consciousness of the limits of accounting and of its role in representing financial performance; the effort to work on accounting in order to correct some of its pitfalls. None of these would be necessarily agreed upon by the reader, but all of them will surely stimulate thinking.

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