WHAT PURPOSE DOES FUNDAMENTAL ANALYSIS SERVE?

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ABSTRACT

After comparing the various definitions of fundamental analysis, the article examines what makes it an essential tool in modern finance; from this, it emerges that new methods cited by many as a threat complement, rather than replace fundamental analysis. The study reviews the conceptual difference between price and value, clarifying the distinction between technical and fundamental analysis. The comparison highlights that, while value is individual and subjective, price is generally characteristic of a concrete transaction between two parties and is objective. At the same time, a more thorough analysis of the concept of fair market value reveals that it is a kind of mirage that barely exists in reality. The difference between the short-term thinking of price-focused stock analysis and the strategic approach of value-focused business valuation clearly illustrates the plethora of goals which fundamental analysis may serve.

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1. INTRODUCTION

What do we actually mean by fundamental analysis? We certainly could not say that there is agreement within the investment community or in the relevant literature with respect to the definition of this commonplace term.

According to Investopedia, it is *"a method of evaluating a security in an attempt to assess its intrinsic value, by examining related economic, financial, and other qualitative and quantitative factors"* (Investopedia, 2018). Business Dictionary, meanwhile, defines it as a *"method of evaluating a security ... by investigating the intrinsic (fundamental) value of the business that issued the security"* (Business Dictionary, 2018).

In the definition of Wikipedia (2018), on the other hand, fundamental analysis *"in accounting and finance, is the analysis of a business's financial statements ...; health; and competitors and markets. It also considers the overall state of the economy and factors including interest rates, production, earnings, employment, GDP, housing, manufacturing and management."*

In contrast, the explanation of the concept that the Nasdaq (2018) uses to aid investors says that fundamental analysis *"seeks to detect misvalued securities through an analysis of the firm's business prospects. Research often focuses on earnings, dividend prospects, expectations for future interest rates, and risk evaluation of the firm. Antithesis of technical analysis. In macroeconomic analysis, information such as interest rates, GNP, inflation, unemployment, and inventories is used to predict the direction of the economy, and therefore the stock market. In microeconomic analysis, information such as balance sheet, income statement, products, management, and other market items is used to forecast a company's imminent success or failure, and hence the future price action of the stock."*

Brealey, *Myers* and *Allen* (2010) are essentially in agreement with the latter as, based on the glossary of terms contained in their book, fundamental analysis is *"security analysis that seeks to detect misvalued securities by an analysis of the firm's business prospects (cf. technical analysis)."*

Thomas and *Gup* (2010:1) describe fundamental analysis as the traditional approach to business valuation, which entails examining the factors that affect the firm now and are likely to affect it in future. These include, for example, analysis of the economic outlook, legislation, industry information, demographics, and other variables that may influence a firm's growth potential. Subsequently, it is necessary to determine the firm's intrinsic value, from which the theoretical value of a security may be deduced. As the authors stress, this value may differ from the market price.

Although not providing a definition, *Damodaran* (2006:6) cites his accepted view that *"the basic principle of fundamental value is that a firm's real value can be linked to its financial characteristics: its growth prospects, risk profile and cash flow"*. Deviation from this implies under- or overvaluation of a stock, so *"that valuation is the focus of fundamental analysis"*.

Even comparing this handful of sources, we find significant differences. These assume at least three dimensions, as follows.

1) Fundamental analysis may apply to a security (Investopedia) or the business issuing a security (Business Dictionary; Wikipedia; Nasdaq; Brealey, Myers and Allen; Thomas and Gup; Damodaran).
2) Fundamental analysis may be the gathering and analysis of data necessary for a valuation (Wikipedia; Nasdaq; Brealey, Myers and Allen), but may also include the financial appraisal process itself (Investopedia; Business Dictionary; Thomas and Gup; Damodaran).
3) The ultimate goal of fundamental analysis may be to identify underpriced securities (Investopedia; Business Dictionary; Nasdaq; Brealey, Myers and Allen), or its area of application may be considerably wider than this (Wikipedia; Thomas and Gup; Damodaran), in what we may perhaps best describe as support of strategic processes.

Based on the above, a concrete definition must be provided to aid unequivocal discussion of the topic. In what follows, we will regard fundamental analysis as a general-purpose process which entails the gathering, evaluation and analysis of various qualitative and quantitative variables impacting the value of a business, in order to lay the foundations for a financial plan which realistically reflects the future operations of the given company, and which may thus serve as a basis for a business valuation. The result of this valuation may subsequently even be used to judge the under- or overvaluation of the shares of the given company. (According to this definition, therefore, the analysis is 1) about a company; 2) does not include the evaluation process itself; and 3) serves a broader area of application than the assessment of share prices; in other words, it roughly corresponds to the approach of Wikipedia.)

2. HAS FUNDAMENTAL ANALYSIS GONE OUT OF FASHION?

Based on all the above, when we ask whether fundamental analysis has gone out of fashion, we can answer unequivocally in the negative. The reason for this is that in this approach, fundamental analysis is – among other things – the basis for both strategic planning and the business valuation process, at the same time used not only in the selection of stocks, but also, for example, in senior management decisions; in lawsuits relating to the division of assets and inheritance; in taxation cases; during acquisitions and the measurement of management performance; or even in accounting, when conducting the fair value accounting of subsidiaries. For this reason, we need to ask the more precise question: Is it true that fundamental analysis is obsolete as a method laying the groundwork for stock market investments? In agreement with the finding of the study by *Iván Bélyácz* and *Alexandra Posza*, we can use at least three arguments to refute this.

The first argument is efficiency. The informational efficiency of markets demands that all information should be contained in prices (Brealey, Myers and Allen 2010:317–318). It is precisely the processing of this information that is the purpose of fundamental analysis. It would be difficult, therefore, to achieve any degree of efficiency unless the investors who carry out the overwhelming majority of market transactions were to perform fundamental analysis in some form even on a daily basis, to assess – for example – how a potential new financial crisis or global customs policy dispute might impact the price of the given security.

In this respect, Iván Bélyácz and Alexandra Posza make the particularly interesting proposal in their study that the definition of an efficient market customarily applied from the informational perspective is perhaps not perfect or unequivocal. This is to say that the various degrees of efficiency (weak, semi-strong, strong) are

dependent on whether the impact of all past, presently public or existing information is apparent in the pricing. At the same time, this does not account for the degree of noise (inaccurate information or speculation) that may also be present in the price alongside this information.

It may be worth supplementing the original definitions of efficiency with the observation that potential disturbances do not distort from an informational point of view, meaning that they do not shift prices tendentiously either up or down. To put it another way, the direction and magnitude of such disturbances is distributed randomly among individual investors who are infinitesimally small compared to the market as a whole, so that they do not distort the assessment of the market's value. Consequently, there can be no false news present on the market that induces price shifts in an identical direction in the eyes of every market player.

It is important to recognise that this prerequisite can be achieved precisely by employing fundamental analysis. This is to say that part of such an analysis is to assess the reality and reliability of gathered (incoming) information.

The second argument is provided by the capital asset pricing model (CAPM). In this model, investors, as a first step in a risk-yield space, examine possible investments individually, and then all the portfolios that may be assembled from them. The much-criticized feature of this model is that it deals with only a single time period and assumes congruence across the time horizon of investments. If we move beyond this problem, then in order to estimate the yield and risk on investments (for a given time horizon) it is necessary to carry out a fundamental analysis. What measure we then employ to quantify the level of risk from the information obtained during the process is secondary – although it is true that if we were to depart from standard deviation (or variance) as the risk measure, then this could shatter the subsequent logic of the model.

When it seems, therefore, that there is no place for fundamental analysis in the logic of those adhering to the CAPM, this is not a peculiarity of the model itself. It is much more a consequence of the practical impossibility, among other things, of correctly choosing a single unified investment time horizon, or of estimating the yield and variance-covariance matrix on all the (existing and potential) investments in the world – and thus being unable to identify the market portfolio either.

For this reason, when employing the model we are obliged to make some compromises. For example, instead of expected future variance we use historical variance (i.e. we regard the future as identical to the past); we observe only stock market investments (where stock analysts provide the expected yields); and we treat the stock market index as a market portfolio (thus completely escaping the need to know anything about most individual investments and how they relate to each other). In this way, when assembling our portfolio it may be sufficient if we estimate not the expected, but the historical value of the given stock's beta; moreover,

not against the market portfolio, but merely against a more or less well chosen share index. Finally, we compare the risk thus quantified with the yield forecasts prepared by others. But though we may do it like this too, of course, it no longer bears much relation to the original CAPM.

This is all to say that it is not the basic model, but its distorted method of application in practice which may lead to fundamental analysis disappearing from the process. It is another matter that to this day it has still not been completely abandoned, at least when assessing expected yields, given that many investors leave the work to professional capital market analysts and consultants.

This is precisely where the BlackRock problem raised by Iván Bélyácz and Alexandra Posza enters the picture. If everyone listens to the same consultant(s), then the market's self-correcting mechanism, built on numerous independent analyses, may vanish completely from the system. We have already seen an example of this, when the handful of credit rating agencies active on the market gave the top rating to derivatives based on American subprime loans. If this were to become standard practice on the market, then sooner or later legal regulations will no longer demand appropriate circumspection when prescribing due diligence, but an adequate credit rating or a consultant's opinion.

The third argument is the CAPM's equilibrium argument, which explains why every investment must be located on the security market line (SML) determined by the market portfolio and the risk-free asset. According to this, if an investment does not fit on the line, investors will trade until it returns to the SML. However, if investors do not carry out fundamental analysis, the question arises of how they will notice whether the expected yield belonging to the given risk is too low or too high. Within the model's framework, we cannot argue that analysts will carry out the task, since here there are only market players who are homogeneous in terms of their access to information, preferences and capacities.

3. THE CHALLENGES OF ALTERNATIVE ANALYSIS

It is likewise worth devoting some attention to the two definitions of fundamental analysis, among those cited at the start of this study, that define the method as the opposite of technical analysis, with its search for patterns in historical stock market prices. Besides the use of the simplifying CAPM method, the technical approach appears to represent perhaps the greatest challenge to fundamental analysis.

Let us acknowledge, however, that the two techniques complement each other, rather than being mutual alternatives. First of all, the two approaches treat stock market prices with fundamentally different perspectives. Fundamental analysis

takes a kind of prescriptive scientific approach, building on relations of cause and effect, and addresses what must (or should) happen in future (assuming the efficiency of markets). Technical analysis, on the other hand, takes a descriptive approach to the question, describing what tended to happen in similar situations in the past, with explanations being pushed into the background.

Secondly, technical analysis, as with the closely related behavioural finance, always concerns itself with expected market prices, while fundamental analysis – in every definition of the concept – is focused on determining value. In connection with the latter, it is customary to hope it will show the direction of the market price, determining its expected value.

Thirdly, the time horizon of the two approaches also differs significantly. While technical analysis always delivers a short-term prognosis (for a period of less than one year), intrinsic value based on fundamental analysis may provide an accurate guide for predicting price movements only in the long term.

Fourthly, there is barely or no overlap in the range of used information. Whichever definition we examine, the historical evolution of stock market prices does not feature as an input parameter in fundamental analysis, and neither do patterns of investor behaviour. As a consequence, technical analysis can scarcely be used, for example, when assessing a new stock listing (IPO), or when only a few atypical investors (e.g. a state privatization body, or a strategic investor) determine the formation of prices. In acting upon the information to be processed, the expertise and toolsets required for carrying out either method of analysis naturally also differ.

Although we could say that technical analysis has gained ground over the once ubiquitous fundamental analysis, the differing possibilities in application seem to demonstrate that this should not be attributed to the absolute superiority of the newer method. At the same time, anyone who has ever picked up a specialised manual describing the methodology of technical analysis in detail is hardly likely to take the view that its ascendancy is due to a dramatically simpler methodology than that of fundamental analysis. On the contrary, it is much more likely because nowadays there are a greater proportion of investors operating on a short time horizon on the stock markets than there were 25–50 or even 100 years ago, and technical analysis may prove more appropriate to their goals.

Based on all the above, when we say that fundamental and technical analysis are opposites or antitheses of one another, then perhaps we are not being sufficiently accurate. This is to say that the two methods do not necessarily produce different assessments on the same questions. It is much rather that they each seek answers to entirely different questions using entirely different approaches; in other words, there is often no overlap in the questions themselves. After all, psychology and medical science are not opposites merely because they approach human beings in different ways and with different goals.

For this reason, therefore, in most cases these two methodologies are not competing, but are quite simply entirely different. And if we do still seek to apply them to answering the same question, then they are much more likely to complement each other.

4. THE DIFFERENCE BETWEEN PRICE AND VALUE

While price is the consideration for a product or service, which must usually be fulfilled in money, value is the importance or usefulness of something (Oxford Dictionaries, 2018a; 2018b). The difference in the two definitions well illustrates the divergent concepts: we have to measure the value (typically in monetary terms), and then we have to share this with someone at least as a requirement, in order to determine the price.

The two concepts thus differ in at least three respects.

1) Value we may interpret from the perspective of a given party, but price always in the context of a specific potential or completed transaction.
2) Price is a declared quantity that can be objectively measured and fixed, while value is subjective, and its exact magnitude is not necessarily known even to the given party.
3) Only something that can be acquired or transferred via some form of transaction may have a price, while other things may have value only. In this way, as the science currently stands, youth or physical health – for example – may only have a value, but not a price.

Naturally, value and price do have some common features. For example,

1) they may change in time;
2) they apply to a given thing; and
3) they are usually expressed in money.

All this is essential because price (or current quote in the case of stock market products) and value may differ for two reasons. On the one hand, the measurement of value may be inaccurate or distorted, particularly as it must be carried out in monetary terms if we wish to determine the price. On the other hand, the price shared with others is not necessarily the same as the value actually measured since we may intentionally distort the result. This may happen, for example, if social convention demands bargaining in the given situation. If we wish to draw the attention of the other party to the existence of distortion, then instead of a simple price we give a guide price or bargaining price. We also find distortion in

the reverse direction, when we wish to grant someone an advantage and thus set a preferential price (only) for them.

When we try to determine the price of a security, stock exchange rules preclude bargaining, so that only the problem of monetary measurement remains. At the same time, for example during an acquisition deal where two parties endeavour to reach an agreement, the parties' declared starting prices may intentionally differ from what they consider realistic. This is still true when there are several potential players on one side of the transaction. It is no accident that sellers, in order to obtain a final price as close as possible to the buyer's maximum (reservation) price, have developed numerous special auction methods, and in reverse situations we see examples of similar stimulation of competition when large companies choose their suppliers.

To stay with the stock market, where bargaining is excluded and we do not know the other party (meaning that our personal preference cannot feature in the pricing process), a kind of competition exists on a liquid market on both the seller's and buyer's side, where we can only expect the transaction to be completed quickly if our offer price conforms to the market's average value estimate, and not to our own. It is no use our knowing that equity X is worth much more than today's current price, because if we want to get money for it today, we have to accept the value estimate of others (even if it is incorrect).

In theory, fundamental analysis is able to review all elements of the value of a given security (or company) from the perspective of a given party, the goal of an evaluation made on this basis being to determine a monetary price proportionate to this value. This will be a reservation price, which it is by no means certain the market will pay. One reason for this is that, when determining personal value, there are non-monetary value elements that may come with ownership of a company which must also be taken into account, such as the possibility of self-fulfilment, respect for family tradition, personal reputation and recognition. The other reason is uncertainty related to the prediction and evaluation of monetary gains.

If a value element exists only for a given owner (for example, the personal memories of the founder), then the market will never pay for it. At the same time, if the seller is lucky, they may find a buyer for whom the given company generates a surplus value it does not provide to its current owner (for example, via synergies arising with the buyer's other companies). For this reason, the final price may exceed the seller's own value expressed in monetary terms, even if the market would otherwise not pay for certain personal value elements.

Due to the above, it is not possible to precisely deduce the two parties' estimates of value from the price emerging in a specific transaction: we only know that the value of the features of the stock in question for the seller is below, while the value for the buyer is above the established price. (In the case of a failed transaction, the

situation is reversed.) However, we cannot see from the sale and purchase data what elements comprise the value. It is essential to recognise that the parties not only differ in their assessment of the monetary price of each given value element, but also over which value elements they take into account.

5. THE MYTH OF FAIR MARKET VALUE

Based on all the foregoing, it is expedient to dispel the myth of "fair market value" that still often raises its head today. As a rule, the users of this expression tend to use it to denote a value which is measured independently and objectively by certain external forces, and which cannot be influenced by specific individual players.

On the market, however, we can always measure price, but never value. If we look at the prices declared by specific players on the market prior to concluding a transaction (for example, purchase and sale prices), these may be distorted in accordance with the interests of the buyer or seller. If, on the other hand, we examine the prices applied in an already concluded transaction, these reflect the value judgement not of the market, but of the two interested parties.

Neither is it an ideal solution for us to examine the average price of many concluded transactions, for in a given period it never happens that all market players are trading, but only those who believe prices are either lower or higher than their own value expressed in monetary terms. Moreover, one price is no more "market-based" than any other, meaning that rather than using one single price (average, median), the actual value judgements of sellers and buyers can be better characterised using a price range.

The term "fair" is not much more tangible. If the price falls between the individual values of the two parties, then it can be regarded as fair, since both parties – even if only pursuing mere self-interest – are willing to participate in the transaction. But just because there are two parties for whom the given price is fair, it certainly does not follow that the same price would be equitable for anyone else among the other market participants.

Based on the above, therefore, 1) we can only monitor prices on the market; and 2) a price can always only be fair to two specific parties, and generally not to the market as a whole. In short, fair market value does not exist; and what is more, neither does fair market price. We can speak, nevertheless, about the value of a specific party, or an equitable (fair) price band in a transaction between two parties.

It follows that when stock market gurus seek or propose methods that claim to be able to identify stocks trading below their realistic value, they are not being entirely accurate. Probably they believe that their method identifies securities

whose current price, based on thorough fundamental analysis, remains below the realistic value determined for a typical investor (i.e. a fictitious one, with no unique features and concentrating exclusively on monetary yields). Naturally, the question then arises of whether half of those concluding deals at that price were irrational, mistaken, or perhaps under constraint (due to liquidity issues, for example). Neither is it clear why only we, the users of the method, notice this, and if this is really the case (i.e. the market is not informationally efficient), then why the market would quickly perform a correction exactly in a way that favours us (since, as we have seen, it was wrong until now).

It is much more feasible when purchasing (supposedly) underpriced stocks to expect a correction to take a long time, and in the meantime to be content with the cash flow generated by the given investment, instead of the capital gains than can be realized only on its eventual future sale. Quantifying the long-term prospects, however, requires fundamental analysis, since alternative approaches are based on corrections in the short term. What most gurus teach is that we should buy securities if we do not mind them remaining around our necks forever if needs be, since the value of our future gains exceeds the current price.

Even so, it does not hurt to be aware that the difference between stock analysis and business valuation does not merely lie in whether the aim is to ascertain the value of an individual stock or the entire equity of a company (and for this reason, whether or not we regard identifying underpriced securities as the sole goal of fundamental analysis is not irrelevant). While stock analysis attempts to determine a short-term (usually one-year) target price, business valuation strives to calculate a value that is based on the future yields of a given party, valid at a given moment according to a set strategy. The stock analyst not only needs to determine whether a security is undervalued, but also the time horizon over which the market correction may take place. The business appraiser, on the other hand, at most makes an attempt to estimate the given party's reservation price, without examining whether there is any investor who would, for any reason, actually pay that price at some point in time.

Consequently, although the toolsets are similar, the stock analyst – besides knowledge of finance – must primarily understand crowd psychology, in order to be able to project future shifts in mass opinion. The business appraiser, meanwhile, must be able to see through the mental processes at the level of individuals, in order to be able to measure value elements such as responsibility towards employees or family traditions in monetary terms.

6. SUMMARY

Based on definitions in the literature, it emerges that the meaning of fundamental analysis is by no means unequivocal. Definitions differ in respect of whether

1) the focus of the analysis is on a security or a business;
2) whether the analysis serves only to prepare a monetary valuation, or actually includes the valuation itself; and
3) whether the ultimate goal is merely to identify mispriced stocks, or rather to support some strategic process.

Fundamental analysis can hardly be said to have gone out of fashion. Nor is this likely to happen in the near future, since

1) the informational efficiency of markets;
2) the weighing of yields and risks by investors; and
3) the CAPM's equilibrium argument presuppose that there is continuous fundamental analysis on the market.

Comparing fundamental and technical analysis, it emerges that the two techniques are different not only in their approach (prescriptive vs. descriptive), but also in that the former deals with value, and the latter with price. Moreover, the former concerns itself only with long-term processes, while the time horizon of the technical approach almost never stretches for more than one year. In addition, the initial bases of information are completely different. Two tools that are so different could not easily replace one another; indeed, because they focus on different aspects, this cannot even be their goal. The rise in the relative popularity of technical analysis over recent decades is probably due to the greater proportion of parties investing in the short term on the stock markets.

Although price and value both change in time, both apply to a given thing, and are both measurable in monetary terms to a greater or lesser degree of inaccuracy, they nevertheless conceal essentially different concepts. For this reason, interchanging of the terms can cause problems in understanding. Price is always declared, and as such can easily be known at least to the other concerned party, and be associated with a specific transaction. Value, on the other hand, is dependent on the individual and can only be known indirectly. While everything may have value, price pertains only to things that may be acquired. For this reason, the meaning of "fair market value" is ambiguous, and we may rather speak of a range of market (or current) prices typical of a period, or of an equitable price band in a transaction between given parties.

Stock analysts who verify the accuracy of market pricing of securities often employ technical and fundamental analysis not because they are endeavouring to

determine the value (to a typical investor) of a given stock one year later, but rather the price for which one can expect to sell it in future. This is decisively influenced not only by the fundamental value, but also by patterns of behaviour among investors. Business appraisers, on the other hand, investigate from the point of view of a specific party, and never promise that a given equity stake can be sold at a price equal to the value determined. They say only that it is not worth selling for less.

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