ValuAnalysis

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What is an **Opinionless Analyst**?

The Hidden Value of Implicit Expectations

The entire financial analysis industry is based on the modelling of *explicit opinions* about the future: opinions on management ability, on economic growth, on corporate profitability etc. Generically: "the forecasts". The marginal information content of another set of explicit predictions must be close to zero, we think. The value of adding another effort to this sum of opinions is not really clear.

Being an opinionless analyst is a less common and more rewarding alternative, though. Being "opinionless" is using the information encapsulated in the market price to derive an ***implicit*** and ***probable*** set of expectations, which can then be assessed, debated and, if need be, opposed. A contrary mind would brand this approach as "just another form of forecast". Indeed, but with a difference: it is a ***leveraged*** assessment. In short, what is easier and more accurate: guessing the date of birth of Genghis Khan, or guessing if Genghis Khan was born in 812 or 1162? Both questions are difficult and will require some knowledge or some research, but the odds of getting it right are not the same. One is leveraged, the other one isn't. Being opinionless, i.e. working from implied assumptions, is putting all the effort on extracting and framing the essential issues (e.g. the two dates of birth) from market information, only then to choose and discuss the most likely one. Meanwhile, forecasting is adding one's opinion to a sea of opinions.

Implicit expectations are not the same as consensus data. The "consensus" produced by data vendors is just the weighted sum of all explicit forecasts, whilst implicit expectations are derived from an observed market value. This price is the product of a complex mechanism which uses up all relevant information and mangles it with a highly efficient economic pricing process: the market. To reverse this process and find out what is implied in the market price can only be done with the help of robust models and the use of correspondingly consistent economic aggregates. Fortunately, most of this has been readily available for quite some time, under the name of Intrinsic Value. At heart, the Opinionless Analyst is an Intrinsic Value analyst of global companies.

Intrinsic Value and Residual Income Models

The term "intrinsic value" was first applied to financial analysis by Benjamin Graham in 1962. His original formula[1] may look a bit bizarre today, but he and his followers subsequently amended and

[1] Intrinsic Value = EPS x (8.5+2g), with 8.5 the no-growth PE ratio and g the sustainable long-term growth rate.

enhanced it, and today, a textbook Intrinsic Value (IV) formula looks like this:

$$IV = BV_0 + \sum_{n=1}^{\infty} \frac{(RoE_n - d)BV_{n-1}}{(1+d)^n}$$

This is in effect a residual income model, a framework of which we have been advocates for a long time. Residual income models are an alternative way to express the value of a discounted stream of free cash flows. "R" being the cash return (or "cash yield"), "NA" net assets and "d" the discount rate, the simplest discounted cash flow model will value a firm as:

$$\frac{R\ x\ NA}{d}$$

In turn, the simplest residual income model will express it as:

$$NA + \frac{(R-d)\ x\ NA}{d}$$

The two being strictly equivalent[2], if R is defined as:

$$\frac{FCF}{NA_e}$$

In words, a residual income model defines Intrinsic Value as the sum of Net Assets (BV_0 in the textbook formula) and a discounted stream of "economic profits", defined as cash profits less the opportunity cost of capital. Defining market value as "asset + flows" offers in our view a superior insight because it forces a discussion on capital invested, or "asset", which the FCF model ignores by construction. Furthermore, after a number of adjustments, it is possible to improve considerably the residual income approach to arrive at an accurate segregation of the **sources of value** that make up the market value of a firm.

The required adjustments are not trivial; in particular, it is necessary to move the model away from accounting and transform the data into ***economic*** aggregates. For instance, the corresponding economic aggregate to book value is the source of "cash from operations", i.e. economic capital invested, the source-aggregate of the firm's economic rent. The fact that this capital invested may or may not be recorded on the books (the accounts) of the company is irrelevant. The criterion for inclusion is the economic nature of the investment, not its accounting format: it must be an asset, i.e. produce cash flow during an identifiable "economic life" even in the absence of maintenance capital spending. As a result, goodwill is excluded, R&D spend is capitalised, brand values and other "concessions" are included but depreciated etc. Another area of adjustment is depreciation, which must also be "economic". Economic depreciation is the recognition of a loss of cash flow through obsolescence and is not linear. Harold Hotelling described the theory of economic depreciation in 1925[3].

We buy standard reported accounting data from mainstream data vendors and we make all the ad hoc economic adjustments in our ValuAnalysis proprietary database.

Market Value Breakdown

An Opinionless Analysis starts with a thorough observation and assessment of Market Value calculated by funding sources: broadly, market capitalisation plus interest-bearing and non-interest bearing liabilities minus non-operating assets. This preliminary exercise is important on two fronts. The breakdown reviews (and attempts to capture) all liabilities, including the hidden ones. And, crucially, it gives an objective market value of the Enterprise, which we assess, question and investigate, but never replace by our own.

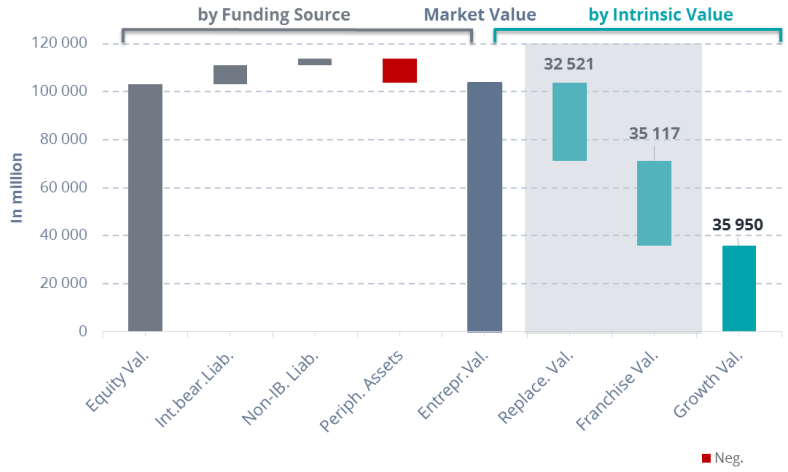
Market Value by Intrinsic Value (the right hand side of the next chart) breaks down this market price according to Ben Graham's principles of Intrinsic Value, represented by "asset + discounted Economic Profits (EP)". Franchise and Growth are two sub-sets of discounted EP, the former calculated with a normalised (or "sustainable") return only. A strict interpretation of Intrinsic

[2] This is true if net assets (NA) are depreciated according to the Hotelling principle of economic depreciation, noted NA_e

[3] A General Mathematical Theory of Depreciation, Journal of the American Statistical Association, 20:pp. 340-353.

Value would define it as Replacement + Franchise Values only (in the grey box on the chart).

THE THREE SOURCES OF VALUE *(ACCOUNTING DATA FROM S&P CAPITAL IQ, ECONOMIC ADJUSTMENTS FROM VALUANALYSIS)*



Replacement Value is our version of net assets in the intrinsic value calculation. We include in "assets" all the economic capital of the firm, tangible or intangible, on or off balance sheet (we happily capitalise expenses with asset characteristics, such as R&D) and we exclude items which are not operating (such as long-term investments, which we treat as cash-equivalent) or have no economic meaning (such as goodwill on acquisitions). These assets, identified at cost, are inflated and depreciated according to the Hotelling principle. Harold Hotelling defines economic depreciation as the contribution to a virtual sinking fund "invested" at the IRR of the firm, such that at the end of the asset life, the original gross amount of capital invested is reconstituted. This means that depreciation cannot be linear, as this charge depends on the IRR (the cash return) of the firm and therefore its measure depends on the age of the assets. An early depreciation charge will have more time to accrue and will require a smaller contribution than a late one. All book values defined by an accounting (linear) depreciation fail to measure accurately the economic decay of the underlying assets.

The 'flows' part of the intrinsic value calculation in our opinionless version is broken down into two: Franchise Value and Growth Value.

Franchise Value is a classic discounted stream of Economic Profits (or "EP"), but with two major amendments: it is not a perpetuity, and it is calculated with the sustainable, not the actual cash return. Negating the benefit of perpetuity to the valuation of the franchise is beneficial to the analysis because it invites a discussion on the "fade", or the rate of decay of the cash rent, and on the firm's Competitive Advantage Period (or "CAP"). These points are often ignored by traditional financial analysis but evidently paramount to management. As for the second point, there is sadly no objective measure of sustainability, and it needs an analytical input on our part. We are hoping that the detailed work that we produce on sustainable return will not damage too much our claim to "no opinion".

Growth Value, which we could have called Surprise Value, is a residual, or "the part of market value not justified by assets or discounted sustainable EP"; it is simply calculated as Market Value minus Replacement Value minus Franchise Value. Even though this aggregate is a mere residual, it is worthy of the same assessment and analysis as the other two. The reason is that the discounted EP flow (Franchise Value) is calculated at zero growth, except for the maintenance reinvestment in the existing assets. It is therefore legitimate, for some companies, to carry a positive Growth Value, as it is the expected discounted stream of EP from (1) further investment above maintenance capex and (2) any excess return above the sustainable level. This aggregate is also an overall gauge of how much the market believes in our Intrinsic Value calculation; a very positive Growth Value would indicate a much greater level of optimism on sustainable rent or Competitive Advantage Period, whilst the reverse would signal a distrust in these numbers. Both would command a detailed investigation.

Why Is All This Worth Doing?

Ben Graham and the early analysts largely concentrated on the asset part of their intrinsic value model, by virtue of the structure of the economy at the time. Warren Buffett, their heir apparent, used the same framework and leveraged the franchise part in the manner that we know. It would take a pretty demanding investor to require much more evidence of the versatility and usefulness of the Intrinsic Value approach.

As for making the models work "the other way around", i.e. from observed valuation to implicit assumptions, we find this approach unquestionably beneficial to those who think that the right question always precedes the right answer. Asking those, we think, is the prime quality of a good financial analyst, opinionless or otherwise.

Glossary of the Opinionless Analyst

Competitive Advantage Period (CAP). The period during which a firm can generate a return (see Rent) above the cost of capital.

Economic Depreciation. The correct way to take into account the obsolescence of an asset, according to the economist Harold Hotelling. Typically, an asset produces n cash flows over its economic life and is valued as the net present value of these cash flows. Depreciation is the recognition of the loss of cash flow(s) as the asset is ageing, such that, at the end of its life, an equal amount of capital has been put aside to renew it. If L is the economic life of the asset and d its cash yield, depreciation in year y is calculated as: $\frac{CF_y}{(1+d)^{(L-y)}}$.

Economic Profits. Cash profits minus the notional cost of capital.

Excess Return. The level of return above the cost of capital.

Fade. The rate of normalisation of the competitive position of the firm, defined as its level of Rent and growth rate. By construction, an excess return cannot be assumed to be perpetual, and the market always assumes an eventual normalisation towards the cost of capital.

Franchise Value. One of the three sources of value, defined as the net present value of a firm's sustainable level of Economic Profits over its Competitive Advantage Period.

Gross economic Capital (GeC). The sum of all operating capital used by the firm pre-depreciation, including all tangible assets, capitalised intangible assets and operating leases, Other Long Term Assets (OLTA) and concession assets.

Growth Value. One of the three sources of value, defined as the residual of: Market Value minus Replacement Value and Franchise Value.

Intrinsic Value. The sustainable value of a firm, defined as Replacement Value plus Franchise Value.

Net economic Capital (NeC). The depreciated value of GeC, according to the principles of economic depreciation.

Net Free Cash Flow. Gross cash flow minus all capital spending.

Operating Free Cash Flow. Gross cash flow minus maintenance capital spending.

Rent Yield. The ratio of FCF over Net economic Capital. We refer to it as "cash yield" or "cash return" as well.

Replacement Value. One of the three sources of value, equal to Net economic Capital.

Residual Income Model. A valuation framework defining the price of an asset as the net (depreciated) value of this asset plus the net present value of its sustainable level of economic profits.

ValuAnalysis
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