Valuation

C15.0042
Lesson 7
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Valuation multiples
The link between valuation multiples and value drivers - growth, return on capital, margins.
Valuation multiples

Valuation multiples are a key component of equity analysis; their successful use depends upon a clear understanding of the factors that drive them.

Objectives of this presentation:
- to explain what a valuation multiple can and cannot tell you about an equity investment
- to highlight the reasons why observed valuation multiples vary in practice
- to consider the influence on multiples of key value drivers - both in theory and in practice
Alternative valuation approaches

Valuation multiple based techniques

Discounted cash flow based techniques

Equity or enterprise value based Relative values only Too simplistic ??

Discounting of equity or enterprise cash flows Many variations .. EVA*, CFROI Do they work ??

What is a valuation multiple?

- A stock's multiple simply reflects the market's interpretation of value
- Nothing more than an expression of market value relative to a key statistic which is assumed to relate to that value

Many 'key statistics' could be used as a basis for multiples ...

Profit measures Dividends Cash flow
Assets Business activity

*EVA is a registered trademark of Stern Stewart & Co.

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Comparison of multiples
Multiples only useful when comparisons are made

An example ...

<table>
<thead>
<tr>
<th>Company</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>100</td>
</tr>
<tr>
<td>Key performance measure</td>
<td>5</td>
</tr>
<tr>
<td>Valuation multiple</td>
<td>20x</td>
</tr>
</tbody>
</table>

Why might the company trade at a discount to the sector?

Are multiples useful for equity valuation?
Some practitioners (and most academics) deride valuation multiples ...

- Multiples are simple numbers and encourage simplistic interpretation
- Multiples combine many value drivers into one number and are therefore difficult to interpret
- Multiples are static
- Identifying why multiples differ is subjective

Why do multiples vary ....
The non-steady state nature of most businesses
Accounting policies
The quality of the business
Capital structure
Business mix
Mis-pricing

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Yes, of course they are ...

Multiples give a framework for making these judgements.
Multiples focus on those key statistics followed by other investors.

DCF, EVA, etc, are not necessarily the whole answer ...

"Mathematics is ordinarily considered as producing precise and dependable results; but in the stock market the more elaborate and abstruse the mathematics the more uncertain and speculative are the conclusions we draw therefrom."

(Benjamin Graham, "The Intelligent Investor")

Why do valuation multiples vary

SECTION 2
Why do multiples vary? – 4 factors

There are good reasons why valuation multiples vary. It is not enough to say that the value of a business should be automatically based upon the ‘sector’ average multiple.

1. The quality of the business
2. Accounting differences
3. Fluctuations in profits
4. Mis-pricing

Multiples – The quality of the business

- High quality businesses deserve higher valuation multiples
- Consider differences in value drivers
  - Growth
  - Quality of management
  - New investment opportunities
  - Quality of franchise
  - etc. .......
- The problem is how to allow for those differences –
  - How much is growth worth?
  - What is the impact of a higher return on capital?
Multiples – Accounting differences

- Different accounting policies which do not affect cash flow should not affect value but do affect profit
- Profit based valuation multiples ARE affected by accounting policies

Consider 2 identical companies except that A does not amortise goodwill while B amortises over 10 years

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Value</td>
<td>2000</td>
<td>?</td>
</tr>
<tr>
<td>Valuation multiple</td>
<td>20x</td>
<td>?</td>
</tr>
</tbody>
</table>

Dealing with accounting differences

- Restate data according to the same accounting policies
  - Difficult!!
- Focus on statistics which are less affected by accounting differences
  - Revenue
  - Cash flow
  - EBITDA
  - OpFCF
Multiples - Fluctuations in profits

◆ Multiples are only meaningful if the profit used is representative of that ‘maintainable’ in the future - multiples vary if there are one-off profit fluctuations
◆ Consider the following ...

<table>
<thead>
<tr>
<th>Year</th>
<th>Earnings</th>
<th>Average Price</th>
<th>Historical P/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>10</td>
<td>200</td>
<td>20.0x</td>
</tr>
<tr>
<td>98</td>
<td>12</td>
<td>220</td>
<td>18.3x</td>
</tr>
<tr>
<td>99</td>
<td>14</td>
<td>260</td>
<td>18.6x</td>
</tr>
<tr>
<td>00E</td>
<td>3</td>
<td>??</td>
<td>??</td>
</tr>
<tr>
<td>01E</td>
<td>17</td>
<td>??</td>
<td>??</td>
</tr>
</tbody>
</table>

◆ What is the 2000 current priced P/E likely to be??

The price is unlikely to collapse given the recovery in 2001 – therefore the multiple SHOULD rise considerably.

Dealing with profit fluctuations

◆ A multiple is only meaningful if the profit on which it is based is indicative of future profit potential
  • Exclude exceptional items
  • Use forecast rather than historical profits
◆ Where the current or subsequent years profits are still not representative of the longer term ...
  • consider using forward priced multiples
Multiples - Mis-pricing

◆ A low multiple could indicate that the stock is simply underpriced rather than just poor quality
◆ If deserved differences in multiples are not fully explained by differences in:
  • business quality
  • accounting policies
  • fluctuations in profits

... then the stock may simply be incorrectly priced

Multiples and value drivers

SECTION 3
Remember all techniques are really the same ...

Value depends upon underlying value drivers
For a given set of assumptions all valuation techniques should give at the same answer

Valuation multiples are really a DCF valuation simplified into one number
Discounted equity cash flows plus net debt\(^{(1)}\) should equal discounted enterprise cash flows
Discounted EVA must always be the same as discounted enterprise cash flows

(1) And also plus the value of other non-equity claims on enterprise cash flows

Understanding value drivers is key

Multiples cannot be interpreted in isolation

Consider ..... Growth Return on capital Margins Tax Capital investment
Value drivers - growth

- Growth is reflected in short-term forecasts and therefore in prospective valuation multiples
- Multiple to growth ratios are used
- Multiples are often plotted against growth to try to...
  - highlight the relationship between growth and value
  - identify possible mis-pricing

How much is growth worth?

- Growth is the most commented upon value driver...

... but how much is it worth?

- Question:

Forecast growth is 10% and the EBITDA multiple is 9.7x.

What would the multiple be if growth were reassessed at 15%?

1) 9.7x  2) 10x  3) 12x  4) 14x  5) 16x
Multiples versus growth
Usually little correlation - why?

The quality of growth
The impact of growth on value depends upon its quality

High quality growth …
◆ Requires little additional investment
  • Growth acquired through substantial additional investment does not add value and multiples should not be high
◆ Is sustainable
  • Growth which is ‘one product based’ or is unsustainable in other ways (e.g. lack of management resources) adds less value and should give a lower multiple
Value drivers - return on capital employed

Return on historical capital invested is irrelevant

- Because capital invested is a sunk cost!!!
- DCF values are not affected by differing levels of invested capital

Well, not quite….

- Forecast return on new investment is very important
- The return currently earned on past investment may be a guide to those future returns

Summary

SECTION 4
Summary

BUT they must be interpreted with care - there are many reasons why multiples vary not just mis-pricing

Use these comparisons / charts as the starting point in analysis ... they are not the end result