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100 QUESTIONS ON FINANCE

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Abstract

This paper contains 100 questions that students, alumni and other persons (judges, arbitrageurs, clients...) have posed to me over the past years. They were recompiled so as to help the reader remember, clarify and, in some cases, discuss some useful concepts in finance. Most of the questions have a clear answer but others can receive several emphases. A short answer to all of the questions is provided at the end of the paper.

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100 QUESTIONS ON FINANCE

Introduction

This paper contains 100 questions that students, alumni and other persons (judges, arbitrageurs, clients...) have posed to me over the past years. They were recompiled so as to help the reader remember, clarify, study in depth and – why not? – discuss some useful concepts in finance. Most of the questions have a clear answer but others can receive several emphases. A short answer to all of the questions is provided at the end of the paper.

1. Is the net income of a year the money the company made that particular year or is it a number whose significance is quite doubtful?

2. Is depreciation the loss of value of fixed assets?

3. The so-called "cash flow" (net income plus depreciation) is a flow of cash, but is it a flow to the shareholders or to the company?

4. The dividend is the part of the net income that the company distributes to shareholders. As the dividend represents real money, the net income is also real money. Is that true?

5. The part of the net income that is not distributed to shareholders goes to reserves (shareholders' equity). As dividends represent real money, reserves are also real money. Is that true?

6. Does the shareholders' equity represent the savings a company has accumulated through the years?

7. Is book value the best proxy to the value of the shares?

8. Is a valuation realized by a prestigious investment bank a scientifically approved result which any investor could use as a reference?

9. Is it possible for a company with a positive net income and which does not distribute dividends to find itself in suspension of payments?

10. There are four ways a company can use the money it generates: a) buying other companies or assets; b) reducing its debt; c) distribute it to shareholders, and d) increasing its cash holdings. What other reasonable things can it do?

11. Assuming a company wishes to distribute money to its shareholders, is it better to distribute dividends or to repurchase shares?

12. Is the price of futures the best estimate of the €/$ exchange rate?

13. How could we obtain an indisputable discount rate? How should we calculate the beta and the risk premium?

14. My company paid an extremely high price for the acquisition of another company; the price was recommended by the valuation of an investment bank. We now have financial problems. Is there any way to make that bank legally responsible for this situation?

15. Which currency has to be used in an international acquisition in order to calculate the flows?

16. Calculated betas provide different information if they are obtained by using daily, weekly or monthly data. Which data is the most appropriate?

17. Does is make any sense to calculate betas against local indexes when a company has a great part of its operations outside this local market? I have two examples: BBVA and Santander.

18. Is it possible to make money in the stock market when the quotations are going down? What is credit sale?

19. Which capital structure should we consider when calculating the WACC for a subsidiary valuation: the one that is reasonable according to the risk of the subsidiary's business, the average of the company or the one the subsidiary "tolerates/permits"?

20. Are there any ways to analyze and value seasonal businesses?

21. A financial consultant obtains different valuations of my company when it discounts the Free Cash Flow (FCF) as opposed to when it uses the Equity Cash Flow. Is this correct?

22. Which parameter better measures value creation; the EVA (Economic Value Added), the economic profit or the CVA (Cash Value Added)?

23. How could we project exchange rates in order to be able to forecast exchange differences?

24. Is it possible to use a constant WACC in the valuation of a company with a changing debt?

25. Which method should we use to valuate young companies with high growth but uncertain futures? Two examples were Boston Chicken and Telepizza when they began.

26. Which of these two methods is better: discounting the Equity Cash Flow or discounting the Free Cash Flow?

27. Is it possible to value companies by calculating the present value of the EVA (Economic Value Added)? Which are the necessary hypotheses so that such valuations provide similar results to discounting cash flows?

28. At times, companies accuse investors of performing credit sales that they make their quotations fall. Is that true?

29. What impact does high inflation have on the value of a business?

30. Is it possible to use different WACCs in order to discount each year's flows? In which cases?

31. Is there any relationship between the net income and the flow to shareholders?

32. Is it true that very few Spanish mutual funds outperform their benchmark? Isn't it strange?

33. What is the significance and the utility of the following formula: Ke = DIV(1+g)/P + g?

34. What is the market risk premium in Spain at the present moment – the number which I have to use in the valuations?

35. Is the difference between the market value of the shares (capitalization) and their book value a good measure for the value creation in a company since its foundation?

36. Is it better to buy shares of a company or its assets?

37. Does the expected value of the sales and of the net income of Spanish companies have anything to do with sustainable growth?

38. Is PER a good guide to investments?

39. Is there an optimal capital structure? What is it and how can it be calculated?

40. Does financial leverage (debt) have any impact on the Free Cash Flow, on the Cash Flow to Shareholders, on the growth of the company and on the value of the shares?

41. Is it true that if a company does not distribute dividends then the cost of its equity is zero?

42. What is the influence of auto portfolio in the quotation of the shares?

43. Why do a Split?

44. The National Company responsible for the company where I work has recently published a document stating that the levered beta of the sector of energy transportation is 0.471870073 (yes, 9 decimals). They obtained this number by considering the betas in the sector, ranging between -0.24 and 1.16. What is the point of being so precise with the betas? Does it make any sense to apply the same beta to all the companies in a sector?

45. What is the Capital Cash Flow? Is it the same with Free Cash Flow?

46. Is there any consensus between the main authors in finance regarding the market risk premium?

47. How can we calculate a company's cost of capital in emerging nations, especially when there is no state bond which we could take as a reference?

48. How can an industrial company inflate the value of its inventory so as to reduce net income and the taxes is has to pay that year?

49. According to the valuation method based on tax shields, the value of the company (Vl) is the value of the unleveraged company (Vu) plus the value of tax shields (VTS). Therefore, the higher the interest, the higher the VTS. So, does the value of the company increase if I call my bank and tell them to charge me double the interest?

50. I cannot seem to start a valuation. In order to calculate E + D = VA (FCF; WACC) I need the WACC and in order to calculate the WACC I need D and E. Where should I start?

51. Does the book value of the debt always coincide with its market value?

52. Is the Free Cash Flow (FCF) the sum of the equity cash flow and the debt cash flow?

53. What is NOPAT (*Net Operating Profit After Tax*)?

54. What is EBITDA (*Earnings Before Interest, Taxes, Depreciation and Amortization)?*

55. I do not understand the meaning of Working Capital Requirements. I think it should be similar to Working Capital (Current Assets – Current Liabilities). Am I right?

56. Why can we not calculate the required return (Ke) from the Gordon-Shapiro model $[P_0 = Div_0 (1+g) / (Ke - g)]$ instead of using the CAPM? As we know the current dividend (Div_0) and the current share price (P_0), we can obtain the growth rate of the dividend from the formula $g = ROE (1-p)/(1 - ROE (1-p))$, p being the payout.

57. Assume I calculate g as $ROE (1-p)/(1-ROE (1-p))$ and the Ke from the CAPM. I replace both values in the formula $PER = (ROE (1+g) - g)/ROE (Ke-g)$ but the PER I obtain is totally different from the one I get by dividing the quotation of the share to the earnings per share. Is it possible to interpret that difference as an overvaluation or undervaluation of that share on the market?

58. I was assigned a valuation of the shares of a pharmaceutical laboratory. Which valuation method is more convenient?

59. I need to know how to value a company well, but I cannot clearly see the valuation process of a company starting from its past income statements. What are the systematical steps I need to take? Firstly, I think I should elaborate the provisional statements for the following fiscal years and then calculate the cash flows, discount them at the present moment (with a discount factor), add the terminal value to it and the difference between the book net value and the market value of intangibles. I really need that these steps be methodical and easy to understand so I can use them as a guide when valuing a company.

60. What is a 3 x 1 Split?

61. A court assigned to me (as an economist and auditor) a valuation of a market butcher's. The butcher's did not provide any simple income statements or any valuable information which I could use in my valuation. It is a small business with just two employees, the owner and an apprentice. This type of tax system exempts them of

certain commercial and fiscal informative statements. I think it is very important to underline that the object of the valuation is not a company, but rather a business, a work position. Although it has recurrent customers the value of its tangible assets is solely the value of its tools, as the premises are rented (I think it is impossible to value the intangible asset that is the work). Obviously, discounting cash flows in not an appropriate method in this case. Actually, I do not know which profession fits better the job that the court assigned to me.

62. What repercussions do variations in the price of oil have on the value of a company?

63. How can an auditor spot acts of creative accounting? I mean, for example, the excess of provisions or the non-elimination of intra group transactions with value added.

64. I heard talk of the *Earnings Yield Gap* ratio, which is the difference between the inverse of the PER and the TIR on 10-year-bonds. It is said that if this ratio is positive then it is more advantageous to invest in equity. How much confidence can an investor have in such an affirmation?

65. I have a doubt regarding the Enron case. How could such a prestigious investment bank advise investing when the quotations of the shares were falling?

66. Is the following affirmation of an accountancy expert true? "The valuation criterion which reflects the value of the shares of a company in the most accurate manner is based on the amount of the shareholder's equity of its balance sheet. Stating that the value of a company's shares equals its book value is a valid argument."

67. Could we say that goodwill is equivalent to brand value?

68. Could we say that the value of shares is intangible?

69. When calculating the WACC, is the weighting of the debt and the shares done with book values of debt and shareholder's equity or with market values?

70. The market risk premium is the difference between the historical return on the stock market and the risk-free rate, for every year. Why is it negative for some years?

71. Is it correct to use in the valuation of the shares of a company the "value of the real net assets" which, according to the Institute of Accounting and Auditing (ICAC), represents the "book value of shareholder's equity, corrected by increases or decreasing in value which could be demonstrated, in the case of the goods, rights and obligations of the company at the reference date?"

72. Is it correct to say that the value of the shares is the "value of the results' capitalization" which, according to the Institute of Accounting and Auditing (ICAC) represents "the sum of the expected future results of the company during a certain period, discounted at the moment of the valuation?"

73. Is it true that a company creates value for its shareholders during a year if it distributes dividends or if the quotation of the shares increases?

74. The ROE *(Return on Equity)* is the ratio between net income and Shareholders' equity. The meaning of ROE is return to shareholders. Consequently, is ROE a correct measurement of the return to shareholders?

75. Regarding the WACC that has to be applied to a project, should it be an expected return, an opportunity cost or the average historical return on similar projects?

76. Could we assume that, as we cannot predict the future evolution of the value of shares, a good approximation would be to consider it constant during the next five years?

77. The reasonable thing to do is to finance current assets (collections, inventories...) with short-term debt, and fixed assets with long-term debt. Is this correct?

78. Is the market risk premium a parameter for the national economy or for the world economy?

79. The market risk premium is the difference between the historical return on the stock market and the return on bonds. But how many years does "historical" imply? Shall we use the arithmetic mean or the geometric one?

80. We are valuing a company, a lot smaller than ours, in order to buy it. As that company is a lot smaller than ours it will have no influence on the capital structure and on the risk of the resulting company. This is the reason why I believe that the beta and the capital structure which are relevant to the valuation of the company we are analyzing are the ones of our company. Am I right?

81. Our company (A) is going to buy another company (B). We want to value the shares of B and, therefore, we will use three alternatives of the structure *Debt/Shareholders' Equity* so as to obtain the WACC: 1) present structure of A; 2) present structure of B, and 3) structure used by A to finance the acquisition of B's shares. We will value the company B by applying these three alternatives and then take as a reference the average of the results. Is this correct?

82. When valuing the shares of my company, I calculate the present value of the expected cash flows to shareholders and I add to the result obtained cash holdings and liquid investments. Is that correct?

83. I think the Free Cash Flow (FCF) can be obtained from the Equity Cash Flow (CFac) by using the relation: FCF = CFac + Interests – ΔD. Is this true?

84. Is the relation between capitalization and book value of shares a good guide to investments?

85. Does it make any sense to form a portfolio comprised of companies with a higher return per dividend?

86. A financial consultant is valuing the company I set as an objective (an entertainment centre) by discounting the cash flows until the end of the dealership at 7.26% (interest rate on 30-year-bonds = 5.1%; market premium = 5%, and Beta = 0.47%). 0.47 is a beta provided by Bloomberg for Kinepolis (the company whose activity is the management of several cinemas in the EU), in function of the Dax Index. Is it correct to use the beta of Kinepolis in this valuation?

87. I am confused because I see different formulae to lever and unlever betas in different books (Damodaran, McKinsey, Brealey & Myers ...). Which is the correct one?

88. An investment bank affirms that the VTS (Value of Tax Shields) of my company is equal to each year's VTS using the WACC as a discount rate. I told them that I have never seen such a calculation of the VTS but they answered that it was a habitual practice. Is that true?

89. I have two valuations of the company we set as an objective. In one of them, the present value of tax shields (D Kd T) was calculated using Ku (required return to unlevered equity) and, in the other one, using Kd (required return to debt). The second valuation is a lot higher than the first one, but which of the two is better?

90. My investment bank told me that the beta provided by Bloomberg incorporates the illiquidity risk and the small cap premium because Bloomberg does the so-called *Bloomberg adjustment formula*. Is that true?

91. As my company is not listed, the investment banks apply an illiquidity premium. Actually, they say it is an illiquidity premium but then they call it a small cap premium. One of the banks, apparently based on Titman y Martin (2007), added the following small cap premiums: "0.91% if the capitalization is situated between \$1,167 and \$4,794 million; 1.70% if the capitalization is between \$331 and \$1,167 million; 4.01% if it is lower than \$331 million". Another bank adds 2% because historically the return of small companies was smaller than that of big companies. Which one is more appropriate?

92. Which taxes do I have to use when calculating the Free Cash Flow (FCF) – is it the marginal tax rate or the medium tax rate of the leveraged company?

93. According to what I read in a book, market efficiency hypothesis implies that the expected average value of variations in the shares price is zero. Therefore, the best estimate of the future price of a share is its price today, as it incorporates all the available information. Is that right?

94. An investment bank calculated my WACC. The report says: "the definition of the WACC is $WACC = R_F + \beta u \, (R_M - R_F)$; R_F being the risk-free rate, βu the unleveraged beta and R_M the market risk rate." This is different from what we have seen in our class. Are they right?

95. I read in a sentence passed by the Supreme Court that, in order to value companies, economic doctrine relies on intermediary methods between the practical models and the 'Anglo-Saxon' theoretical models common in the United States and United Kingdom, and the criteria set by the Administration is the result of a combination of both methods. This is completely different from what we have seen in class – is it correct?

96. Did you see the Vueling case? How is it possible that an investment bank set the objective price of its shares in €2.50 per share on the 2nd of October of 2007, just after placing Vueling shares at €31 per share in June 2007?

97. I suppose that a valuation consciously realized in my name tells me how much I have to offer for the company, right?

98. Do expected equity flows coincide with expected dividends?

99. What is the difference between simple return and weighted return to shareholders?

100. Is there any indisputable model to value the brand of a company?

Short Answers to the Questions:

A1. The net income of a year is not money that accumulates in the safe. Therefore, it is not "money" the company earned. On the other hand, it is one of the possible numbers (with the flexibility that accountancy provides) a company might have shown. Fernández (2004a and 2004b, chap. 10)[1] states that, generally, cash flow is more useful than net income: reported net income can be presented in several ways (it is just an opinion) while equity cash flow or free cash flow is a fact: a unique number. There is a financial maxim which, although it is not completely true, might be convenient to remember: "net income is just an opinion, while cash flow is a fact."

A2. No. An operative (and not a pseudo-philosophical) definition of depreciation might be: it is a number that allows us to save taxes.

A3. Assuming that net income plus depreciation is a flow is an enormous mistake. It would be surprising if someone took the sum of two parameters whose meaning is doubtful and whose magnitude is discretional and called it a "cash flow."

A4. No. Net income is not real money: it is a number that appears in the last line of the Profit and Loss Account which could vary according to the criteria used in accountancy, the provisions considered, etc.

A5. No. See A 1, A 4 and A 6.

A6. No. The number which appears in the Shareholder's Equity of a company that was founded several years ago is just a number which balances the balance sheet. It does not have a clear economic meaning.

A7. No. According to A6 it would be a miracle if the number that appears in the Shareholders' Equity had anything to do with the value of the shares. When we have a look at the relation between the market value and the book value of all the Spanish companies in the continuous market, we arrive at several conclusions: a) in February 2005 and December 2006 there was no company whose market value equaled its book value; b) the average was 4.1 in February 2005 and 4.6 in December 2006, and c) there was just one company (Tavex Cotton Maker) whose market value was lower than its book value in December 2006. If we repeat the same exercise for the companies included in the S&P 500, we can notice that, in February 2005 and in December 2006, there was no company whose market value equaled its book value; the average was 3.8 in 2005 and 4.5 in 2006.

A8. No. It is neither scientifically approved, nor valid for any investor. A valuation is just an opinion.

A9. Yes. A lot of companies which entered into suspension of payments presented a positive net income during the past years. There are a lot of companies with positive profits that do not have money.

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[1] Fernández, P. (2004a), *"Cash Flow is a Fact. Net Income is Just an Opinion."* It can be downloaded from: http://ssrn.com/abstract=330540. Fernández, P. (2004b), "*Valoración de Empresas*". 3rd edition, Gestión 2000.

A10. There are no other reasonable things.

A11. From a fiscal point of view, it is more efficient to repurchase shares.

A12. No. The price of financial futures comes from arbitrage and it has nothing to do with expectations.

A13. There is no indisputable discount rate (no beta and no market premium): a discount rate is a subjective appreciation of the risk of the flows of the company or the project considered.

A14. I would say no. The investment bank does a valuation according to the expected value of the flows the company could generate and its risk. What an investment bank provides is a valuation and not a "price of valuation." The responsibility for the price lies with the company that realizes the offer. A frequent error is to assign a valuation to an investment bank without getting involved and just waiting for the valuation report. Obviously, such a valuation considers just the value of the company according to the investment bank's forecasts (on the economy, the sector and the company) and according to the risk estimation of the company, also realized by the investment bank. A useful and relevant valuation to the executives of a company depends on the expectation of these executives.

A15. It can be done in the local currency or in the currency of the parent company. It seems more convenient to realize it in the local currency because, in order to do it in the currency of the parent company, one has to consider the flows in the local currency and change them into the currency of the parent company. But to do this it is necessary to forecast the exchange rates – and it does not seem logical to think that someone who forecasts the exchange rates well will end up calculating flows.

A16. Fernández and Carabias (2007) and Fernández (2004, chap. 23) shows that there are serious errors being made when using betas calculated with historical data in order to obtain the required return to shares, because betas calculated with historical data: 1) change a lot from one day to another; 2) depend on which stock market index was taken as a reference; 3) depend a lot on which historical period (5 years, 3 years...) is used in the calculation; 4) depend on which returns (monthly, yearly...) are used in the calculation; 5) we do not know whether they are higher or lower than the betas of other companies, and 6) they have almost no relation to the posterior return of the shares.

Also, the correlation of the regressions that are used in the calculation of betas is almost always very low.

A17. Both the betas calculated against local indexes as well as those calculated against international indexes are not very useful, as we can see from the following graphs which show the betas of Santander calculated with everyday data during the past 5 years.

Figure 1
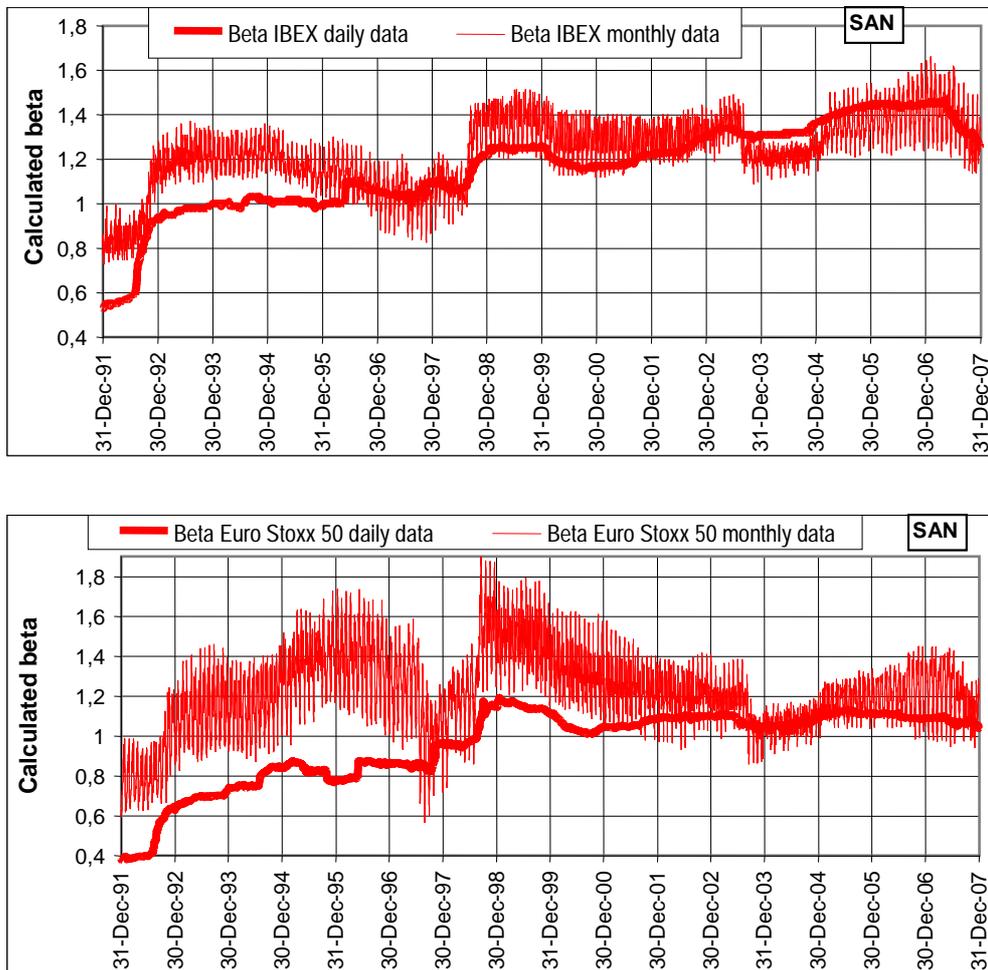
A18. There are three easy moves to make money when prices are going down: credit sale, futures sale and purchase of put options. Credit sale of a share implies borrowing it and sell it afterwards. For example, we sell the share today at a certain price (we can say €10) but we owe a share to the institution that lent it to us. If the quotation of the share goes down to 8 Euros the following week, we buy the share and give it back to the institution that borrowed it to us and cancel out our position. In this case, we will have earned 2 Euros (the 10 Euros we earned from the sale of the share minus the 8 Euros we paid to buy it). Meanwhile, of course, we will owe a share to the institution that lent it to us and they will ask for some guarantee to cover the debt. Futures sale is very similar to credit sale but with the advantage that, normally, the guarantees demanded are lower. For example, an investor who sold a futures contract on the IBEX 35 on Friday 18th of January, when this was at 13,900 points, and closed his position (by buying a futures contract identical to the one he sold) on Monday 21st, when it was at 12,700, would have earned 12,000 Euros. The calculation is a lot easier: 10 Euros for a point. The price fell by 1,200 points and, therefore, the investor gained 12,000. But if the IBEX 36 had gone up, the investor would have lost 10 Euros for each point.

A19. The reasonable one according to the business risk of the subsidiary.

A20. Seasonal businesses can be valued by discounting flows using annual data, but this requires some adjustments. The correct way to value the flows is using monthly data. Fernández (2003 and 2004, chap. 30)[2] shows that errors due to the utilization of annual data are important. When using annual data, the calculations of the value of the unlevered company and of the value of tax shields have to be adjusted. On the other hand, the debt we have to subtract in order to calculate the value of the shares does not need any adjustment. Using the average debt and the average of the working capital requirements does not provide a good approximation of the value of the company. There is not much emphasis on the impact of seasonality in company valuation: Damodaran (1994), Brealey and Myers (2000), Penman (2001) and Copeland (2000) do not even include the terms "seasonal" or "seasonality" in their indexes.

A21. No. Different methods of valuation by discounting flows always provide the same value (if done correctly). Fernández (2006 and 2004, chap. 28)[3] shows that 10 methods of valuation by the method of flows discount always provide the same value. This result is logical as all the methods analyze the same reality under the same hypothesis; they differ just in the cash flows they use as a starting point in the valuation.

A22. The EVA (Economic Value Added) is the profit before interests minus the book value of the company multiplied by the WACC. The EP (Economic Profit) is the net income minus the book value of the shares multiplied by the required return to equity. The CVA (Cash Value Added) is the profit before interests plus depreciation, minus economic depreciation, minus the cost of the used resources. Fernández (2001)[4] shows that EP, EVA and CVA do not measure value creation in a company for each period. These parameters can prove to be of certain usefulness to executives and to the business units when setting objectives, but it does not make any sense to give the EP, EVA and CVA the significance of value creation for each period.

A23. If someone knew how to forecast exchange rates, they would be a millionaire and would not lose time on forecasting exchange differences! There is no formula that could forecast exchange rates reasonably well. Actually, supposing a constant exchange rate leads to bad forecasts, but is still better than supposing the exchange rate would follow the inflation differential or the interest rates differential.

A24. Theoretically, the WACC can only be constant if a constant debt is expected. If the debt changes from one year to the next, the WACC changes as well. In order to value companies in which debt changes dramatically, the APV (Adjusted Present Value) is easier and more intuitive. It is possible to use a constant WACC (the weighted average of the WACC of the different years) when debt changes, but it is a number that does not have anything to do with the WACC in a particular year.

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[2] Fernández, P. (2003), "How to Value a Seasonal Company Discounting Cash Flows." It can be downloaded from http://ssrn.com/abstract=406220. Fernández, P. (2004), "*Valoración de Empresas*". 3rd edition, Gestión 2000.

[3] Fernández, P. (2006), "Valuing Companies By Cash Flow Discounting: Ten Methods and Nine Theories." It can be dowmloaded from: http://ssrn.com/abstract=256987. Fernández, P. (2004), "*Valoración de Empresas*". 3rd edition, Gestión 2000.

[4] Fernández, P. (2001), "EVA and Cash Value Added Do Not Measure Shareholder Value Creation." It can be downloaded on http://ssrn.com/abstract=270799

A25. The great majority of analysts admit that it is very difficult to realize projections of flows of young companies with uncertain futures. But Fernández (2004, chap. 9) shows that we can predict a future year in which the company would already be consolidated; that is, starting from that particular year the company should have a moderate growth. The capitalization that year should be today's capitalization revaluated at the required return. If that capitalization looks reasonable, then today's quotation is also reasonable. But if it looks exaggerated, then the company today is overvalued. A similar method is to calculate the flows necessary to justify future capitalization and to weight its magnitude.

A26. The results we get by discounting the Equity Cash Flow and the Free Cash Flow are identical (otherwise, one or both of the valuations are incorrect). Personally, I prefer discounting Equity Cash Flows (I find the flow and the discount rate more intuitive). I also like to complement this valuation with the APV.[5]

A27. Yes. Fernández (2002 and 2004, chap 18)[6] shows that discounting expected EVAs provides the same value as discounting cash flows (as long as, from an accounting point of view, the increase in value of the Shareholders' Equity equals the net income minus the dividends). If E is the value of the shares and Evc is their book value, then:

$$E_0 = Evc_0 + VA\ (EVA;\ WACC),\ where\ EVA_t = NOPAT_t - (D_{t-1} + Evc_{t-1})WACC$$

The NOPAT (*Net Operating Profit After Taxes*) is the profit of the unleveraged company (the profit before interests and after taxes). The EVA depends mainly on two accounting parameters: the profit and the book value of equity and debt.[7]

A28. It is true: there are companies that accuse investors who perform credit sales of making their quotation fall. But the stock market is just a financial market and prices fall when there are more sales than purchases and vice versa. The investors who perform credit sales and the investors who sell their shares – as well as those who do not buy – are all equally responsible for the fall in prices. Why not accuse the investors who do not buy, as well? If this position were consistent, they should also accuse the investors who chose to buy of forcing the price up!

A29. Besides causing distortion (as it unequally affects all goods and services), inflation increases the uncertainty for companies and makes decision making a lot more difficult. On the other hand, it generates increases in the present value of the taxes which are to be paid[8] and decreases the value of the shares.

A30. Yes. The WACC can only be constant when a constant debt is expected. If debt changes from one year to the next, the WACC also changes from one year to the next, according to the formula:

$$WACC_t = [E_{t-1}\ Ke_t + D_{t-1}\ Kd_t\ (1-T)]\ /\ [E_{t-1} + D_{t-1}]$$

[5] Fernández, P. (2007), "Valuing companies by cash flow discounting: Ten methods and nine theories," *Managerial Finance,* Vol. 33, No 11, pp. 853-876. It can be downloaded from: http://ssrn.com/abstract=256987

[6] Fernández, P. (2002), "*Valuation Methods and Shareholder Value Creation,*" Academic Press, San Diego, CA. Fernández, P. (2004), "*Valoración de Empresas,*" 3rd edition, Gestión 2000.

[7] The EVA is not a new concept. In 1924, Donaldson Brown, financial executive of General Motors, had already said: "the objective of the executives is not maximizing investments but achieving an incremental profit superior to the cost of the resources used."

[8] This effect is explained in Chapter 12 of Fernández, P. (2004), "*Valoración de Empresas,*" 3rd edition, Gestión 2000.

Ke is the required return to equity, Kd is the cost of debt and T is the effective rate of income tax. E_{t-1} and D_{t-1} are the values of the shares and the debt which are obtained in the valuation.[9] This formula for WACC implies that the value of the debt coincides with its book value.[10]

A31. The relation between net income (BFO) and the available flow to shareholders (CFac) in a year is the following: CFac = BFO – ΔNOF – ΔAFN + ΔD + ΔEvc*, where ΔNOF is the increase in working capital requirements, AFN the increase in net fixed assets, ΔD the increase in financial debt and ΔEvc* the increase in Shareholders' Equity which is not due to profits (reserves, conversion of convertibles...).

A32. Yes. During the period 1998-2007, only 30 of the 935 mutual funds with over 10 years of history obtained a higher return than the benchmark used; and just two of them obtained a higher return than the Overall Index of the Madrid Stock Exchange. During 1998-2007 and 1992-2007, the average returns on mutual funds were lower than the returns on state bonds (at any term considered). During the past 10 years, the average return of the funds was lower than inflation. Despite these results, at 31st December 2007, 8,264,240 shareholders had €238.7 billion invested in the 2,907 existing investment funds.[11]

A33. The expression Ke = DIV(1+g)/P + g comes from the Gordon and Shapiro formula to value shares: P = DIV(1+g)/(Ke–g). In these formulas, P and DIV are known and Ke and g are unknown. Some people take as g (expected growth of dividends) the average of expectations of analysts, and afterwards they calculate Ke (Ke calculated in such way is usually called *implicit*). But Ke calculated in this way is just one of several which can be calculated. The formula allows us to obtain pairs (Ke, g) which satisfy the equation.

A34. It is not possible to talk of "the" market premium for Spain. A risk premium is the incremental return an investor demands from shares, above the return on risk-free bonds. There is a *market risk premium* of each investor, but it is not possible to talk about a *market risk premium* of the market. In order to be able to talk about a *market risk premium* of the market it would be necessary that all investors had the same one. On the other hand, the term "risk premium" is used to define four different concepts: the incremental required return above fixed-income, the differential historical return, the expectation of differential return and the implicit market risk premium.[12]

A35. No. Value creation in a period is the difference between the return to shareholders and the required return multiplied by the capitalization at the beginning of the period.[13]

A36. The choice between buying shares of a company and buying its assets depends mainly on the fiscal differences and on the possible responsibilities related to the value of asset holdings, on penal responsibilities... which might be different for the two parties.

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[9] That is why a valuation is a repetitive process: the *free cash flows* are discounted at the WACC in order to calculate the value of the company (D+E), but in order to obtain the WACC we need the value of the company, (D+E).

[10] When this does not happen, the equation of the WACC appears at: http://ssrn.com/abstract=256987

[11] These results come from Fernández, P. and V. J. Bermejo (2008), "Rentabilidad de los Fondos de Inversión en España. 1991-2007." It can be downloaded from: http://ssrn.com/abstract=1095303

[12] Refer to, for example, Fernández, P. and J. M. Carabias (2006) "La Prima de Riesgo." It can be downloaded from http://ssrn.com/abstract=897676

[13] Refer to, for example, Fernández, P. (2001), "A Definition of Shareholder Value Creation." It can be downloaded from: http://ssrn.com/abstract=268129

A37. No. Sustainable growth it is just a number that shows how much a company could grow without any capital increases or debt increases and considering a constant return. On the other hand, an increase in sales or net income depends on the market and on the competition and has little to do with sustainable growth.

A38. No. The return to dividends and the relation between capitalization and the book value of shares are better indicators, on average.

A39. There is no optimal capital structure. Capital structure is a variable which depends on the inclination of high directives and which has a lot of implications for the company: for its daily functioning, for its growth, for its capacity to manage risks and crisis and for its survival. If we consider the optimal structure the one that produces a minimum WACC, then the optimal structure is the one that maximizes debt.[14]

A40. Debt has no influence on Free Cash Flow because this is, by definition, the flow to shares if the company had no debt. However, the equity flow does depend on the debt. This also affects the capitalization and the value of shares. If a company increases its debt, its capitalization decreases and, naturally, the price per share increases.

A41. No.

A42. By buying and selling their own shares some companies try to soften oscillations in the share prices.

A43. A 4 x 1 Split is an operation by which a shareholder now owns 4 shares for each share he/she had before. Logically, the stock market value of each of these new shares is ¼ of their value before the split. Why is it useful? One of the possible answers is that it reduces the price of a share in order to increase liquidity.

A44. The answer to both questions is no. See A13, A16, and A17.

A45. No. The capital cash flow is the flow available to all holders of securities of the company (debt and shares) and it represents the sum of the cash flow available to shares (CFac) and of the cash flow that belongs to debt holders (CFd). The expression which relates CCF with FCF is the following: $CCF_t = FCF_t + D_{t-1} r_t T$

A46. No. In Fernández (2006)[15] we arrive at this conclusion after analyzing more than 100 books and financial articles. The following chart and table illustrate this point:

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[14] The reader can refer to Fernández, P. (2001), "*Optimal Capital Structure: Problems with the Harvard and Damodaran Approaches.*" It can be downloaded from: http://ssrn.com/abstract=270833

[15] Fernández, P. (2006), "*The Equity Premium in Finance and Valuation Textbooks.*" It can be downloaded from: http://ssrn.com/abstract=934324

Figure 2
Risk premium recommended in some books and *papers*

REP (Required Equity Premium) used in textbooks
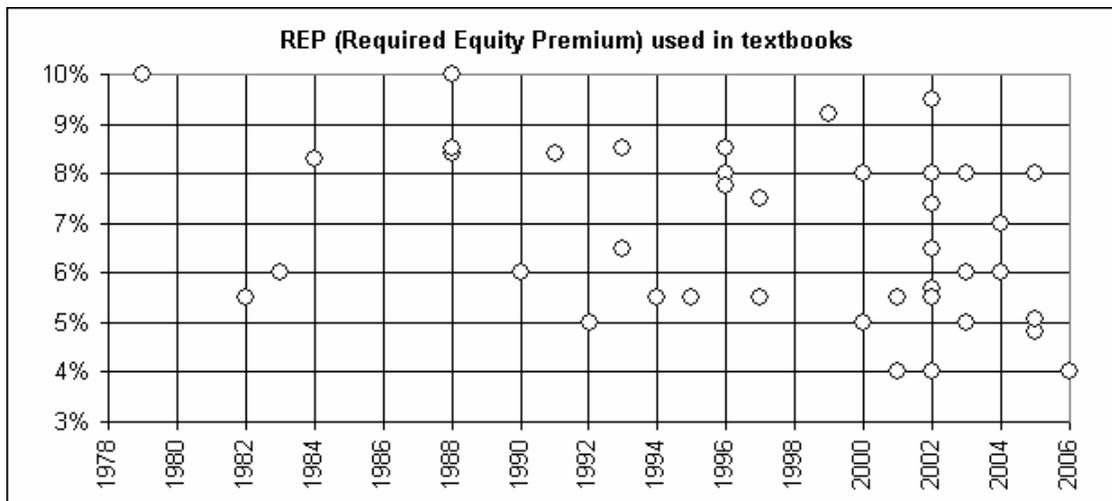
Source: Fernández, P. (2006).

Author(s) of the Textbook	Assumption	Period for HEP	REP recommended	REP used
Brealey and Myers				
2nd edition. 1984	REP=EEP= arith HEP vs. T-Bills	1926-81	8.3%	8.3%
3rd edition. 1988	REP=EEP= arith HEP vs. T-Bills	1926-85	8.4%	8.4%
4th edition. 1991	REP=EEP= arith HEP vs. T-Bills	1926-88	8.4%	8.4%
5th edition. 1996	REP=EEP= arith HEP vs. T-Bills		8.2 - 8.5%	
6th and 7th edition. 2000 and 2003	No official position		6.0 - 8.5%	8.0%
8th edition. 2005 (with Allen)	No official position		5.0 - 8.5%	
Copeland, Koller, and Murrin (McKinsey)				
1st edition. 1990	REP=EEP= geo HEP vs. T-Bonds	1926-88	5 - 6%	6%
2nd ed. 1995	REP=EEP= geo HEP vs. T-Bonds	1926-92	5 - 6%	5.5%
3rd ed. 2000	REP=EEP= arith HEP – 1.5-2%	1926-98	4.5 - 5%	5%
4th ed. 2005. Goedhart, Koller & Wessels	REP=EEP= arith HEP – 1-2%	1903-2002	3.5 – 4.5%	4.8%
Ross, Westerfield, and Jaffe				
2nd edition. 1988	REP=EEP= arith HEP vs. T-Bills	1926-88	8.5%	8.5%
3rd edition. 1993	REP=EEP= arith HEP vs. T-Bills	1926-93	8.5%	8.5%
4th edition. 1996	REP=EEP= arith HEP vs. T-Bills	1926-94	8.5%	8.5%
5th edition. 1999	REP=EEP= arith HEP vs. T-Bills	1926-97	9.2%	9.2%
6th edition. 2002	REP=EEP= arith HEP vs. T-Bills	1926-99	9.5%	9.5%
7th edition. 2005	REP=EEP= arith HEP vs. T-Bills	1926-02	8.4%	8%
Van Horne, 6th edition. 1983				6.0%
8th edition. 1992			3 - 7%	5.0%
Copeland and Weston (1979)				10%
Copeland and Weston (1988)				10%
Weston and Copeland (1992)				5%
Bodie, Kane, and Marcus				
2nd edition. 1993	REP=EEP		6.5%	6.5%
3rd edition. 1996	REP=EEP=arith HEP vs. T-Bills - 1%		7.75%	7.75%
5th edition. 2002			6.5%	6.5%
2003	REP=EEP= arith HEP vs. T-Bills	1926-2001		5%; 8%
Damodaran 1994 Valuation. 1st ed.	REP=EEP= geo HEP vs.T-Bonds	1926-90	5.5%	5.5%
1996, 1997, 2001b, 2001c	REP=EEP= geo HEP vs.T-Bonds		5.5%	5.5%
2001a	average IEP	1970-2000	4%	4%
2002	REP=EEP= geo HEP vs.T-Bonds	1928-00	5.51%	5.51%
2006 Valuation. 2nd ed.	REP=EEP= geo HEP vs.T-Bonds	1928-2004	4.84%	4%
Weston and Brigham (1982)			5-6%	
Weston, Chung and Siu (1997)			7.5%	
Bodie and Merton (2000)				8%
Stowe et al. (2002)	REP=EEP= geo HEP vs.T-Bonds	1926-00	5.7%	5.7%
Hawawini and Viallet (2002)	REP=EEP= geo HEP vs.T-Bonds	1926-99		6.2%
Pratt (2002)	REP=EEP=HEP			7.4%, 8%
Fernández (2002)	"is impossible to determine the premium for the market as a whole"			
Penman (2003)	"No one knows what the REP is"			6%
Fernández (2001, 2004)	"different investors have different REPs"			4%
Bruner (2004)	REP=EEP= geo HEP vs.T-Bonds	1926-2000	6%	6%
Weston, Mitchel, and Mulherin (2004)	REP=EEP= arith HEP vs.T-Bonds	1926-2000	7.3%	7%
Arzac (2005)	REP=IEP		5.08%	5.08%

REP = required equity premium; HEP = historical equity premium; IEP = implied equity premium; EEP = Expected equity premium

A47. Although there is no state bond whose flows could be considered "risk-free," the required return to shares is a matter of common sense (experience also helps): it is the rate at which we calculate the present value of flows, considering its risk.

A48. If a company increases the value of its inventory, the cost of the sales increases and/or the same thing happens to general expenses, which makes the net income go up instead of going down. The valuation of the inventory of an industrial company depends on the value assign to the workforce and on the variety of general expenses.

A49. Actually, the valuation formula is V_L = Vu + VTS. The value of the company (V_L) is also the value of the shares (E) plus the value of the debt (D). Consequently, E + D = Vu + VTS. The effect of double interests would be: an increase in VTS which would be superior to D causing a decrease in E. The value of the company does increase but the value of the debt increases and the value of the shares decreases (it does not seem to please shareholders unless they own the debt).

A50. The method of valuation which uses the WACC is an iterative process. It can be started by considering a certain debt and a certain WACC. After we obtain the value, we can check whether it coincides with the initially predicted debt. If it does not, we change it and so on. If the process is done with an electronic spreadsheet, the spreadsheet realizes the iterations until obtaining consistent values for the WACC and for the debt and shares.

A51. No. Some examples include: long-term debt with a fixed interest rate that is higher or lower than the present market rate; debt with government subsidies; debt to a company with serious financial troubles...

A52. The *Free Cash Flow* (FCF) is not the sum of the Equity Cash Flow (CFac) and of the debt cash flow (CFd = Interests − ΔD). This sum is called the *Capital Cash Flow* (CCF). The *Free Cash Flow* (FCF) is a particular CFac if the company had no debt, and can be calculated with the formula: FCF= CFac − ΔD + Interests (1−T).

A53. NOPAT = Net Operating Profit After Tax = The profit of the company if interests were zero (it is a hypothetical profit of the company if it had no financial debt).

A54. EBITDA (*Earnings Before Interest, Taxes, Depreciation and Amortization*) is the profit of the company before interests, taxes and depreciation. It can be calculated before or after the extraordinary.

A55. The Working Capital Requirements represent the difference between the current assets necessary for the operations of the company (minimum cash holdings, clients, inventories) and the current liabilities without financial debt (providers, provisions...). They differ from Working Capital because the latter does consider financial debt. When a company grows, its financial necessities increase more or less proportionally to the Working Capital Requirements.

A56. Book data (past information) have no relation to market data (based on future expectations). The growth in the Gordon-Shapiro formula is the expected one and it does not have much to do with historical data. In the Gordon-Shapiro equation, there are two unknown variables: Ke and g. We can calculate pairs (Ke, g) which satisfy the equation, but we cannot say that one of them is "the right one".

A57. The g that affects the PER is not ROE (1-p)/[1 − ROE (1−p)], but the expected average growth of the profit per share, which is not observable.

A58. Basically, you should use the discount of expected flows. After doing the valuation you can calculate some ratios and compare them with other companies from the sector to see if they make sense.

A59. 1st Perform forecasts of Balance Sheets and Profit and Loss Accounts for the following fiscal years; 2nd calculate the flows to shareholders; 3rd discount them at the present date (with a discount factor); 4th add terminal value to it, and 5th add the value of assets which do not affect the business (they can be sold without affecting in any way the flows calculated so far). There is no need to consider the difference between the book net value and the market value of intangibles.

A60. It is an operation by which you get three new shares for each of the shares you used to possess. Logically, the stock market value of each of these new shares is 1/3 of the value they had before the split.

A61. In order to value the butcher's as a business you should also forecast the flows it will provide. As the butcher's does not seem to be a business with a high rate of growth, you can consider how much the owner earned for all the concepts, during the past years (and the increases in the cash holdings, if any). From this quantity you should subtract a reasonable wage and the difference you obtain is the flow for the shareholder. However, this is just for the case where this type of valuation results superior to the liquidation value (if the local or the leasehold assignment were very valuable).

A62. It depends on how the oil will affect the collections and payments of the company (its expected flows). However, the expectations on the future price of oil are far more important than its price today.

A63. This is the job of an auditor: they can make use of experience, asking the reasons behind the numbers and judging whether these respect accountancy norms.

A64. It is not always true that if this ratio is positive then it is more profitable to invest in equity. How much confidence can an investor have in this ratio? It is not an investment criterion; nor is any other ratio.

A65. The document you refer to is the report of an investment analyst. The analysts, as are all individuals concerned with predicting the future, are usually wrong 50% of the time. The value of an analyst's report is not in their recommendations (if the future were clear to them, they would not need to work as an analyst), but for their analysis of the company and competition.

A66. During 2005-2008, the market value of the shares of listed Spanish companies was more than triple their book value. The same thing happened with the stock markets in all occidental countries, where less than 1% of the companies had a higher book value than their market value.

A67. Goodwill is just the difference between the price paid and the book value. Its dimension is due to more than just brand value: value added of land and real assets, the value of a motivated organization, corporative culture, distribution channels... There are also situations, especially with high interest rates, where the price of the shares is lower than their book value; does this mean the value of the brand is negative?

A68. Yes. The value of the shares of a company represents the present value of the expected equity flows. Today, the expected (future) equity flows are intangibles. Consequently, the value

of the shares is intangible (we cannot say the same thing about their price). Affirming that there is only a part of their present value which is intangible is a mistake.

A69. Neither book values nor market values are used. The values which have to be used are those resulting from the valuation.

A70. The market risk premium (required return) is not the difference between the historical return of the stock market and that of fixed-income. For example, the historical return of the stock market over fixed-income in the United States fluctuates between 3% and 15% according to the time period referenced. The required equity premium is the additional return an investor requires of the shares above the risk-free fixed-income. It does not have the same value for each investor and it is not observable. Therefore, we cannot say it is a characteristic parameter of the national or international economy.

A71. The method denominated "value of the real net assets" has no theoretical base (and no good sense): it is a mixture of the book value and the market value of assets. Nor is it a liquidation value.

A72. The method denominated "value of the results capitalization" has no theoretical base (and no common sense).

A73. No. A company creates value to shareholders if the return they get is higher than the required return. In order to create value, it is necessary that the return on dividends plus the return due to price increases be superior to the required return; it is not enough if it is a positive number.[16]

A74. If ROE was a good proxy for the return to shareholders of unlisted companies, it should also be a good proxy for listed companies. However, the ROE of a particular year does not have much to do with the return to shareholders that particular year.[17]

A75. The WACC is neither an opportunity cost, nor an expected return, nor an average historical return. The WACC is a weighted average of required returns.

A76. This affirmation is an error. The relation between the value of the shares of different years is: $E_t = E_{t-1} (1+Ke_t) - CFac_t$. The value of the shares is constant ($E_t = E_{t-1}$) only if $CFac_t = E_{t-1} Ke_t$. This happens in non-growing perpetuities.

A77. No. The reasonable thing to do is to finance the permanent requirements of financing (either due to current assets or fixed assets) with long-term debt and the temporary requirements of financing with short-term debt.

A78. No. The risk premium is the return differential (above the return that can be obtained by investing in government bonds) that an investor requires for stock market investment. It is not a characteristic parameter of an economy as each has his own risk premium. The value of the

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[16] See, for example, Fernández, P. (2001), "A Definition of Shareholder Value Creation." It can be downloaded from: http://ssrn.com/abstract=268129

[17] This is shown, for instance, in Fernández, P. and V. J. Bermejo (2008) "Bancos españoles 1991-2007. Rentabilidad y creación de valor." It can be downloaded from: http://ssrn.com/abstract=1092395

average market risk premium is unknown and it cannot be considered as being the one of a representative investor.[18]

A79. No. The risk premium which is relevant for the calculation of the required return to shares is the one described in A78 and it does not have much to do either with the historic one, or with the expected or implicit ones.

A80. No: the relevant risk is that of the acquired assets. If this were not the case, a government bond should have a different value for each company.

A81. That average has no meaning. The relevant structure is similar to the one in three, but none of the ones indicated is correct. The correct valuation is the difference between the value of (A+B) after the acquisition minus the value of A today.

A82. If the company is not going to distribute the cash holdings in the near future, it is incorrect to add them. It is also incorrect to add the whole value of the cash holdings because the company needs part of it to go on with its operations (the minimum cash holdings). It could be correct to add all the cash holdings just in the following cases: a) if the interest rate received for the treasury equaled the interest rate paid for the debt; b) if the cash holdings were distributed immediately, and c) if the cost of debt needed to calculate the WACC was the weighted average of the cost of debt and the interest rate received for the treasury (in such a case, the useful debt in order to calculate the ratio debt/shareholder's equity has to be the debt minus the cash holdings). The value of the excess cash holdings (over the necessary amount in order to go on with the operations) is lower than the book value if the interests received for the treasury are lower than the interests paid for the debt.

A83. No. The free cash flow (FCF) and the flow to shares (CFac) verify the following relationship: $CFac = FCF + \Delta D - Interests (1-T)$.

A84. It is, in general. In Fernández and Bermejo (2008, table 9)[19] is shown which portfolios formed at the beginning of each year in the Spanish stock market, according to the relationship capitalization/book value, were substantially more profitable than the IBEX 35 and the overall index of the Madrid Stock Exchange.

Table 1

Returns until December 2007	3 Years	5 Years	10 Years	16 Years
ITBM (overall index of the Madrid Stock Exchange)	24.5%	25.9%	13.7%	16.4%
IBEX 35 with dividends	22.5%	24.1%	10.4%	15.1%
Top 20 Book/P weighted	40.9%	36.5%	30.6%	30.8%
Top 25 Book/P weighted	31.1%	30.5%	28.4%	28.2%
Top 30 Book/P weighted	29.7%	30.4%	26.4%	27.5%

Book/P is the inverted Capitalization/Book Value

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[18] Refer to Fernández, P. (2006), "Equity Premium: Historical, Expected, Required and Implied." It can be downloaded from: http://ssrn.com/abstract=933070

[19] Fernández, P. and V. J. Bermejo (2008), "Rentabilidad de los Fondos de Inversión en España. 1991-2007." It can be downloaded from: http://ssrn.com/abstract=1095303

A85. It is, in general. In Fernández and Bermejo (2008, table 9)[20] is shown which portfolios, formed at the beginning of each year in the Spanish stock market, according to the return per dividends, were substantially more profitable than the IBEX 35 and the overall index of the Madrid Stock Exchange.

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IBEX 35 with dividends	22.5%	24.1%	10.4%	15.1%
Top 20 DIV weighted	26.3%	28.8%	20.6%	22.3%
Top 25 DIV weighted	26.4%	26.0%	19.4%	22.0%
Top 30 DIV weighted	27.0%	26.3%	20.5%	22.6%

If can also be verified that the index IBEX Top Dividend had a return of 269.61% between December 1999 and December 2007 while the IBEX 35 had a return of 30.42%. The return on the IBEX Top Dividend was higher than the IBEX all of these years except for 2007.

A86. Obviously not. The required return to shares (7.26%) is a ridiculous number for an entertainment center. On the use of calculated betas, see questions 16 and 17.

A89. Fernández (2001)[21] shows that discounting the tax shields with the Ku and the WACC is not correct. There are six habitual expressions to calculate the value of tax shields which are frequently used. Only three of them are valid (they have a theoretical basis): Myers (1974) and Modigliani-Miller (1963), when the company plans to return the existing debt without making a new one; Miles-Ezzell (1980) when the company plans its debt proportionally to the market value of the shares; and Fernández (2004), when the company plans its debt proportionally to the book value of the shares or assets.

Fernández (2004): VTS = VA[D Ku T; Ku].   Miles-Ezzell (1980): VA[Ku; D T Kd] (1+Ku)/ (1+Kd)

Myers (1974) and Modigliani-Miller (1963): VTS = VA[Kd; D T Kd]

Other incorrect formulae to calculate the value of tax shields are:

Damodaran (1994): VA[Ku; DTKu – D (Kd – R_F) (1–T)];   Practitioners: VA[Ku; DTKd – D(Kd – R_F)]

Harris-Pringle (1985) y Ruback (1995, 2002): VA[Ku; D T Kd]

Myers (1974) has to be used only when it is possible to know with complete certainty the amount of the debt at any future moment. Miles y Ezzell (1980) has to be used only if the future debt is proportional to the market value of the shares (we are not aware of any company that manages its debt in such a way). Fernández (2004) has to be used only if the risk of the future increase of the debt is similar to that of the FCF.

A90. No. The so-called "*Bloomberg adjustment formula*" is an arbitrary adjustment in order to converge calculated betas to 1 and consists of multiplying the calculated beta by 0.67 and

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[20] Fernández, P. and V. J. Bermejo (2008), "Rentabilidad de los Fondos de Inversión en España. 1991-2007." It can be downloaded from: http://ssrn.com/abstract=1095303

[21] Fernández, P. (2001), "The Correct Value of Tax Shields. An Analysis of 23 Theories." It can be downloaded from: http://ssrn.com/abstract=276051

adding 0.33 to it. Adj. Beta = 0.67 x raw beta + 0.33. It is important to point out that this adjustment is completely arbitrary.

A91. It is obvious that the size is not always a source of risk: there are, in all sectors, small companies with lower risks than bigger ones. On the other hand, it does not seem that illiquidity affects the value when the shares of an unlisted company have a certain buyer, either because it is stated in the bylaws of the company, or because a shareholder wants to convert his/her debt into shares...

A92. The correct taxes are the hypothetical ones the company would pay if it had no debt.

A93. The relationship between the expected value of the shares (E_t) for different years is: $E_t = E_{t-1}$ $(1+Ke_t) - CFac_t$. $E_t = E_{t-1}$ only if $CFac_t = E_{t-1} Ke_t$. This only happens in non-growing perpetuities.

A94. No. This formula is not the definition of the WACC but of the required return to the shares of the unlevered company (Ku).

A95. It is a mystery to which "economic doctrine" the Supreme Court refers to in its sentence. The methods referred to lack any basis.

A96. It is true. After placing the shares of Vueling at €30/share in December 2006 and at €31/share in June 2007, the 2nd of October of 2007, the investment bank set the objective price at €2.5/share.

1st December of 2006. IPO of Vueling at €30/ share. The first day, the closing price was €32.99/share.

23 February of 2007. Maximum at €46.7/share.

6th June of 2007. Placement of the 20.97% of the share capital of Vueling (shares of Apax) at €31/share.

19th July of 2007. One of the placement banks recommends selling at the objective price at €20/share.

August 2007. Vueling admits not being able to fulfill the business plan: the shares fall in 30%.

31st August of 2007. New objective price of Vueling: €12/share.

3rd October of 2007. The same placement bank values Vueling at €2.5/share. Quotation: €8/share.

23rd October of 2007. The bank increases the value of a share from €2.5 at €13, and it still recommends to 'sell.'

28th December of 2007. The last quotation of 2007 is the value of the share from €8.95/share.

A97. No. This means to neglect, firstly, that a valuation depends on certain hypotheses of flow generation and their risks (the value always depends on expectations); a company will have different values for different buyers. And, secondly, that if the acquisition price is equal to the value, the transaction will create no value for the buyer: if the price paid in an acquisition is equal to the value for the buyer, then the value created by the acquisition equals zero. On the other hand, one should not forget that value normally represents a number in a spreadsheet, while the price is frequently cash. There is a huge difference between €20 million in cash and €20 million written in an Excel spreadsheet or in a valuation report.

A98. The expected flows to shareholders must coincide (because that is what they are) with the expected dividends plus all other types of payments to shareholders (shares repurchases, nominal refunds...).

A99. The return that databases provide, and the one which is habitually used, is the simple **return**, but is it not a good measurement of the return for the whole group of shareholders over a period of time when the company offers shares in order to increase capital or acquire assets

and when the company repurchases shares. Appendix 4 of Fernández and Bermejo (2008)[22] defines the concept of "weighted return to shareholders" which considers all the shareholders of a company: the initial ones and the ones that entered following capital increases.

The weighted return to the shareholders of a company during a period of time is the internal rate of return of the capitalization at the beginning of the period, the net flows received or brought by the shareholders during each intermediate period and the capitalization at the end of the period. It is also the IRR of a shareholder who permanently maintains the same proportion of the capital of the company.

A100. No. Several brand valuations are revised in Fernández (2008 y 2004, cap. 35)[23] and the conclusion is that they are not too reliable (a lot less than share valuations) due to the difficulty of defining which flows are due to the brand and which are not. However, it is useful to identify, evaluate and classify the brand value drivers, which represent a managerial tool in value creation and allow the creation of powerful and stable brands. Sometimes, brands are evaluated in order to be translated to a society situated in a state with lower taxes. Obviously, in such cases it is in the company's interest to argue the highest possible value for its brand, so as to save more taxes.

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[22] Fernández, P. and V. J. Bermejo (2008), "Bancos españoles en 1991-2007. Creación de valor y rentabilidad para los accionistas." It can be downloaded from: http://ssrn.com/abstract=1092395

[23] Fernández, P. (2008), "Valoracion de Marcas e Intangibles." It can be downloaded from: http://ssrn.com/abstract=975471. Fernández, P. (2004), "*Valoración de Empresas.*" 3rd edition, Gestión 2000.

Comments from Readers of Previous Versions of this Paper

Incredible! I never thought that reading an article on 100 questions and answers on finance would attract me as a novel does – you cannot stop reading until you reach the end!

Reading this paper was like going back 11 and a half years and meeting you in the classroom.

How useful, splendid and clear is your answer to question 14 (I am a lawyer so I went straight to that question).

I had to get to the seventh question in order to find an answer to which I could agree, yet still with some points to make. I must admit I could not go on. Because, are you sure you know what the net income is? At the moment, I do not. Maybe I am a bit old-fashioned because I believe that today there are many foolish things done in accountancy and, in the worst cases, nonsense calculations. However, I am sure of what used to be done in the past and that the number behind the net income was a *lot* more useful than any other cash flows in order to value how a company was going. Also, the fiscal amortization had nothing to do with book amortization, which was essentially a distribution of costs. All this made a lot more sense. And, neither the net income nor the amortization, nor any other element of accountancy claimed having anything to do with the value of the company, although the word "value" is sometimes used in a misleading way... probably because of the lack of a better option. To sum-up, I partially agree to an important part of the spirit behind the things you say; however, I completely disagree to the words you use.

I find it very interesting, as it is easy to read and it answers the questions that people want to ask but don't have the opportunity.

It is wonderful, because my clients ask me these types of questions every day, and what really confuses them is when they have to sell their companies or buy new ones... well, it is not just about the clients but also, as you rightly said, the professionals in investment banks that perform valuations and research.

I found the paper very interesting and clarifying as opposed to all the nonsense that is said today in the financial world.

I had a look at the paper and I found it very interesting; I see that your answers are characteristic of the acidly pedagogical style you used to use in the classroom and that made a lot of blockheads in finance show interest in this field.

I printed it in order to read it more attentively, to refresh some concepts and to enjoy a nice moment.

I had a lot of fun reading it because it reminded me of the good times we spent in the PDG and I could remember your priceless teachings of the "Theory of the hammer blow" and its iconoclastic and revealing conclusions.