

## **Valuation of brands and intellectual capital**

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### **ABSTRACT**

In this paper, we revise several methods used for valuing brands. Among them, those of Interbrand, Damodaran, Financial World, Houlihan Valuation Advisors, Market Facts, Young & Rubicam and CDB Research & Consulting.

In particular, we analyze in depth the valuations of Kellogg's and Coca-Cola performed by Damodaran and the method proposed by Interbrand. Damodaran valued the brand Coca-Cola in 24,6 billion dollars in 1993 and in 102,6 billion dollars in 1998.

In recent years, a lot has been spoken about the value of companies' intellectual capital. However, almost all of the studies on the subject are highly descriptive and a long way from obtaining a quantitative valuation. It is by no means clear what the company's intellectual capital is, and even less so if we intend to value the company's brand and intellectual capital separately.

Our goal is to show the limitations of a number of the methods proposed for valuing brands and intellectual capital and, within the limits imposed by the brand's intrinsic reality, establish guidelines for value creation through the study of brands and intellectual capital. We also propose a scheme for identifying brand value drivers, that is, the parameters influencing the brand's value.

JEL Classification: G12, G31, M21

Keywords: brand, brand value, brand value drivers, *brand equity*, intellectual capital, brand valuation, brand valuation process

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The consulting firm Interbrand valued the Coca-Cola brand at 72.5 billion dollars and the Microsoft brand at 70.2 billion dollars. The ratio between brand value and market capitalization ranged between 1% for Pampers, 2% for Shell, and 77% for Apple and Nike. For Coca-Cola it was 59%, 14% for Pepsico and 52% for Kellog. On 16 February 2001, the newspaper Expansión published a list with the value of the brands of the main soccer and formula 1 teams. The consulting firm FutureBrand performed the valuation. According to them, the Real Madrid brand was worth 155 million dollars and the Barcelona brand was worth 85 million dollars. The first question that comes to mind is: Are these valuations reliable? The second question is: Does valuing brands achieve anything useful?

Table 1. The 80 most valuable brands in 2000 (in billion dollars), according to Interbrand

		Brand value				Brand value				Brand value				
Company	Country	2000	1999	Company	Country	2000	1999	Company	Country	2000	1999			
1	Coca-Cola	USA	72.5	83.8	28	BMW	Germany	13.0	11.3	55	Colgate	USA	4.4	3.6
2	Microsoft	USA	70.2	56.7	29	Kodak	USA	11.9	14.8	56	Wrigley's	USA	4.3	4.4
3	IBM	USA	53.2	43.8	30	Heinz	USA	11.8	11.8	57	Chanel	France	4.1	3.1
4	P&G	USA	48.4		31	Budweiser	USA	10.7	8.5	58	adidas	Germany	3.8	3.6
5	Nestlé	Switzerland	40.3		32	Xerox	USA	9.7	11.2	59	Panasonic	Japan	3.7	
6	Intel	USA	39.0	30.0	33	Dell	USA	9.5	9.0	60	Rolex	Switzerland	3.6	2.4
7	Nokia	Finland	38.5	20.7	34	Gap	USA	9.3	7.9	61	Hertz	USA	3.4	3.5
8	General Electric	USA	38.1	33.5	35	Nike	USA	8.0	8.2	62	Bacardi	Cuba	3.2	2.9
9	Unilever	UK	37.1		36	Volkswagen	Germany	7.8	6.6	63	BP	UK	3.1	3.0
10	Ford	USA	36.4	33.2	37	Ericsson	Suecia	7.8	14.8	64	Moët&Chandon	France	2.8	2.8
11	Disney	USA	33.6	32.3	38	Kelloggs	USA	7.4	7.1	65	Shell	UK	2.8	2.7
12	McDonald's	USA	27.9	26.2	39	Louis Vuitton	Francia	6.9	4.1	66	Burger King	USA	2.7	2.8
13	AT&T	USA	25.5	24.2	40	Pepsi-Cola	USA	6.6	5.9	67	Smirnoff	Rusia	2.4	2.3
14	Marlboro	USA	22.1	21.0	41	Apple	USA	6.6	4.3	68	Barbie	USA	2.3	3.8
15	Mercedes	Germany	21.1	17.8	42	MTV	USA	6.4		69	Heineken	Holand	2.2	2.2
16	Hewlett-Packard	USA	20.6	17.1	43	Yahoo!	USA	6.3	1.8	70	Wall Street Journal	USA	2.2	
17	Cisco Systems	USA	20		44	SAP	Germany	6.1		71	Ralph Lauren	USA	1.8	1.6
18	Toyota	Japan	18.9	12.3	45	IKEA	Sweden	6.0	3.5	72	Johnnie Walker	UK	1.5	1.6
19	Citibank	USA	18.9	9.1	46	Duracell	USA	5.9		73	Hilton	USA	1.5	1.3
20	Gillette	USA	17.4	15.9	47	Philips	Holand	5.5		74	Jack Daniels	USA	1.5	
21	Sony	Japan	16.4	14.2	48	Samsung	Korea	5.2		75	Armani	Italy	1.5	
22	Amex	USA	16.1	12.6	49	Gucci	Italy	5.2		76	Pampers	USA	1.4	1.4
23	Honda	Japón	15.2	11.1	50	Kleenex	USA	5.1	4.6	77	Starbucks	USA	1.3	
24	Diageo	UK	14.6		51	Reuters	UK	4.9		78	Guinness	Ireland	1.2	1.3
25	Compaq	USA	14.6		52	AOL	USA	4.5	4.3	79	Financial Times	UK	1.1	
26	Nescafé	Suiza	13.7	17.6	53	amazon.com	USA	4.5	1.4	80	Benetton	Italy	1	
27	Colgate Palmolive	USA	13.6		54	Motorola	USA	4.4	3.6					

Table 2. Value of the brands of soccer and formula 1 teams (in million dollars), according to FutureBrand

Manchester United	259	Juventus	102	Arsenal	82	Ferrari	110
Real Madrid	155	Liverpool	85	Inter Milan	76	McLaren Mercedes	106
Bayern Munich	150	F.C. Barcelona	85	Rangers	53	Williams BMW	79

In recent years, particularly since the publication of David Aaker's book "*Managing Brand Equity: Capitalizing on the Value of a Brand Name*",<sup>1</sup> the number of consulting firms and research documents proposing methods for determining a brand's value has increased enormously.

The effort is worth it because, in the current competitive environment, many consider that the brand constitutes many business sectors' most important commercial and institutional asset. A lot of people are interested in learning how to create strong, enduring brands. One essential part of this process is to identify each brand's value drivers, that is, the basic parameters for creating, managing and measuring a brand's value.

However, we feel that we are still a long way from defining exactly the brand concept and, therefore, its value.

In this paper, our goal is to show the limitations of a number of the methods proposed for valuing brands and intellectual capital and, within the limits imposed by the brand's intrinsic reality, establish guidelines for value creation through the study of brands and intellectual capital.

<sup>1</sup> Published by Free Press in 1991.

As we will see, the first difficulty encountered is finding a precise definition of what a brand is. This requires determining what part of the cash flows generated by the company are to be attributed to the brand or, to put it another way, what flows would the company generate if it did not have the brand we wish to value<sup>2</sup>.

There is a lot of confusion about brand value. In 2000, a national newspaper published that, according to a renowned marketing professor, “a brand’s value can be up to three times more than the market capitalization”. Obviously, this is a conceptual error.

Another line of research has been to value the so-called “intellectual capital”, which we shall discuss in section 12.

## 1. Methods used for valuing brands

A number of authors and consulting firms have proposed different methods for brand valuation. The different methods consider that a brand’s value is:

1. The market value of the company’s shares.
2. The difference between the market value and book value of the company’s shares (market value added). Other firms quantify the brand’s value as the difference between the shares’ market value and its adjusted book value or adjusted net worth (this difference is called goodwill). An example of a company that uses this method is given in section 2.
3. The difference between the market value and the book value of the company’s shares minus the management team’s managerial expertise (intellectual capital).
4. The brand’s replacement value
  - 4.1. Present value of the historic investment in marketing and promotions<sup>3</sup>.
  - 4.2. Estimation of the advertising investment required to achieve the present level of brand recognition.
5. The difference between the value of the branded company and that of another similar company that sold unbranded products (generic products or private labels). To quantify this difference, several authors and consulting firms propose different methods:
  - 5.1. Present value of the price premium (with respect to a private label) paid by customers for that brand
  - 5.2. Present value of the extra volume (with respect to a private label) due to the brand
  - 5.3. The sum of the above two values
  - 5.4. The above sum less all-differential, brand-specific expenses and investments. This is the most correct method, from a conceptual viewpoint. However, it is very difficult to reliably define the

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<sup>2</sup> There are many definitions for the brand concept but they are not feasible for brand valuation. For example, Aaker defines the brand as “a set of assets and liabilities linked to a brand’s name and symbol that adds to or subtracts from the value provided by a product or service to a firm and/or that firm’s customers”. According to Lance Leuthesser (1995), the brand is “a product’s additional value (for its customers) compared with what would be the value of another identical product without the brand”. According to the Marketing Science Institute (1998), the brand is the “strong, sustainable, and differentiated advantage with respect to competitors that leads to a higher volume or a higher margin for the company compared with the situation it would have without the brand. This differential volume or margin is the consequence of the behavior of the consumers, the distribution channel and the companies themselves”.

<sup>3</sup> This method is inconsistent because there are brands, like Rolls Royce, where marketing costs are negligible and the brand’s value is substantial. It is used frequently by Cadbury-Schweppes.

differential parameters between the branded and unbranded product, that is, the differential price, volume, product costs, overhead expenses, investments, sales and advertising activities, etc.

5.5. The difference between the [price/sales] ratios of the branded company and the unbranded company multiplied by the company's sales. This method is discussed in section 3 and is used by Damodaran to value the Kellogg and Coca-Cola brands, as we shall see in section 4. In section 5, we discuss a series of problems or errors that these valuations contain.

5.6. Differential earnings (between the branded company and the unbranded company) multiplied by a multiple. As we shall see further on, this is the method used by the consulting firm Interbrand.

6. The present value of the company's free cash flow minus the assets employed multiplied by the required return. This is the method used by the firm Houlihan Valuation Advisors and is discussed in section 9.

7. The options of selling at a higher price and/or higher volume and the options of growing through new distribution channels, new countries, new products, new formats ... due to the brand's existence.

## 2. Valuation of the brand “for whom” and “for what purpose”

When valuing a brand, it is particularly important “**for whom**” that value is being determined for, since the brand's value is not the same for the company that owns the brand as for a company with a competing brand or for another company operating in the industry with a brand that does not compete directly with it, etc.

Likewise, it is vitally important to define “**for what purpose**” it is wished to determine a brand's value, whether it is to sell it or to collect a series of royalties or to facilitate the brand's management or to capitalize its value in the balance sheet and then depreciate it.

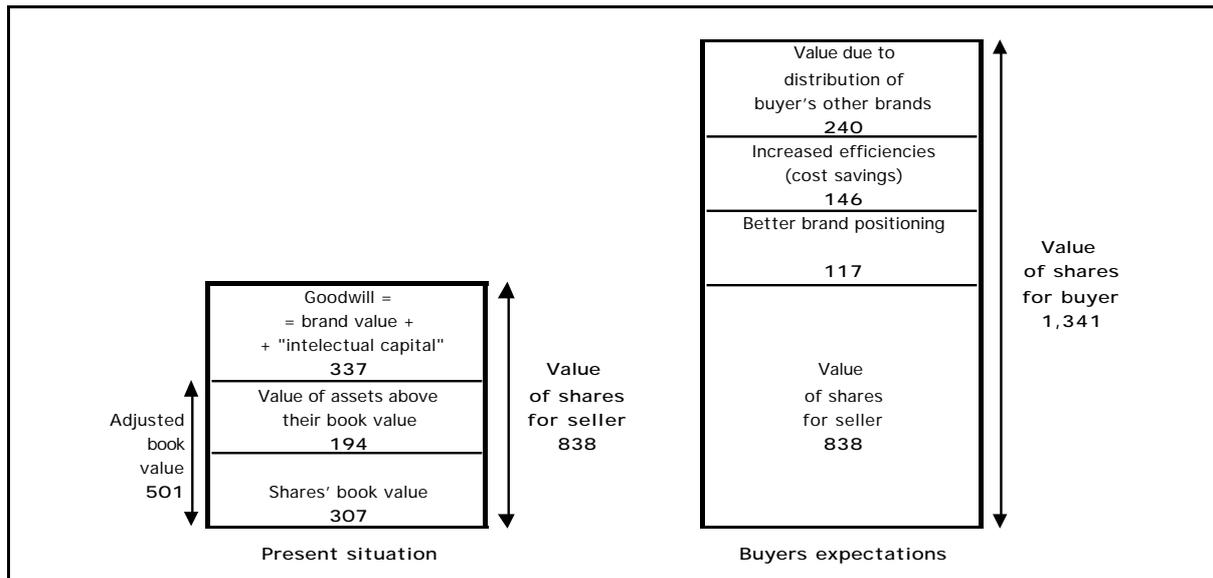
An example will help us understand the importance of this difference. Figure 1 shows two valuations of the equity of a consumer products company: that made by the seller (present situation) and that made by the buyer (buyer's expectations). The seller's management team calculated the value of the company's shares (assuming that it will continue to lead the company) as being 838 million euros. The buying company's management team (taking into account its expectations) valued the company's shares at 1.341 billion euros. The difference ( $1,341 - 838 = 503$ ) is due to a better positioning of the present brand (117 million); savings in sales, distribution, overhead and production costs (146 million); and value of the distribution of the buyer's other brands through the company's channels (240 million).

The seller's management team maintained that the brand's value (including the intellectual capital) under its management was 337 million. However, it is obvious that the brand's value (and the company's value) depended on “**for whom**”. It is also obvious that “**for whom**” is related with “**for what purpose**”: the buyer's management team would use the company's assets and the brand in a different way from the seller's management team. It is also obvious that the value of the shares and the brand would be different for another prospective buyer.

This example also highlights the difficulty in separating what is brand value and what is intellectual capital. Can the reader think of a sensible procedure for dividing the 337 million between brand value and intellectual capital?

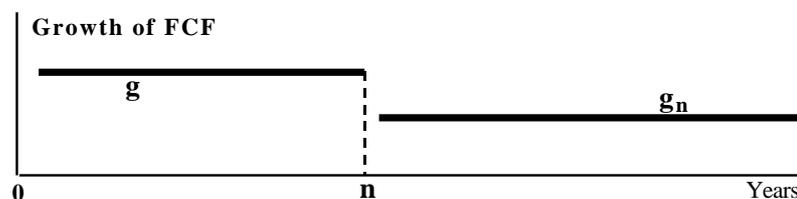
Finally, the shares were sold for 1.05 billion euros.

**Figure 1. Two valuations of the shares of a consumer products company**



### 3. Valuation of the brand using the difference in the price to sales ratios

It is assumed that the FCF grows at a rate  $g$  until year  $n$  and, after year  $n+1$ , it grows at a rate  $g_n$ . Therefore, the FCF for year  $n$  is:  $FCF_n = FCF_1 (1+g)^{n-1}$ , and the FCF for year  $n+1$  is:  $FCF_{n+1} = FCF_1 (1+g)^{n-1} (1+g_n)$



The value of the company (E+D) today is:

$$(1) (E + D)_0 = \frac{FCF_1}{WACC - g} \left( 1 - \frac{1 + g}{1 + WACC} \right)^n + \frac{FCF_1 (1+g)^{n-1} (1+g_n)}{(WACC - g_n)(1+WACC)^n}$$

This expression reduces to:

$$(2) (E + D)_0 = \frac{FCF_0(1+g)}{WACC - g} \left( 1 - \frac{1 + g}{1 + WACC} \right)^{n-1} \frac{g - g_n}{WACC - g_n}$$

The FCF (free cash flow) is the NOPAT less the increase in net fixed assets less the increase in working capital requirements:

$$(3) \quad FCF = NOPAT - \Delta NFA - \Delta WCR$$

Dividing (3) by the sales (S), we obtain:

$$\frac{FCF}{S} = \frac{NOPAT}{S} - \frac{\Delta NFA}{S} - \frac{\Delta WCR}{S}$$

As<sup>4</sup>  $\frac{\Delta NFA}{S} + \frac{\Delta WCR}{S} = \frac{\Delta NFA + \Delta WCR}{S} = \frac{S}{S} = 1$  g gives:

$$(4) \quad \frac{FCF}{S} = \frac{NOPAT}{S} - 1 + g$$

Dividing the expression (2) by the sales (S) and taking into account (4), we obtain:

$$(5) \quad \frac{E + D}{S} = \frac{NOPAT}{S} - \frac{\Delta NFA + \Delta WCR}{S} + \frac{(1+g)}{WACC-g} \left( 1 - \frac{1+g}{1+WACC} \right)^{n-1} \frac{g-g_n}{WACC-g_n}$$

We can consider a price to sales ratio for a branded company and another price to sales ratio for an unbranded company, that is, with private labels or generic products. In this case, the value of the brand is:

$$(6) \quad \text{Value of the brand} = \frac{E + D}{S}_{\text{brand}} - \frac{E + D}{S}_{\text{generic}} \times \text{Sales}$$

If instead of valuing the company, we only value the shares, the formula (1) becomes formula (7)

$$(7) \quad E_0 = \frac{ECF_1}{K_e - g} \left( 1 - \frac{1+g}{1+K_e} \right)^n + \frac{ECF_1 (1+g)^{n-1} (1+g_n)}{(K_e - g_n) (1+K_e)^n}$$

The equity cash flow (ECF) is equal to the profit after tax (PAT) multiplied by the payout ratio (p in the first years and p<sub>n</sub> in the following years). Dividing the expression (7) by the sales gives:

$$(8) \quad \frac{E}{S} = \frac{PAT}{S} \frac{(1+g)p}{K_e - g} \left( 1 - \frac{1+g}{1+K_e} \right)^n + \frac{PAT}{S} \frac{p_n (1+g)^{n-1} (1+g_n)}{(K_e - g_n) (1+K_e)^n}$$

In the same way, we can consider an equity (E) to sales ratio for a branded company and another equity (E) to sales ratio for an unbranded company, that is, with private labels or generic products. The brand's value will then be:

$$(9) \quad \text{Value of the brand} = \frac{E}{S}_{\text{brand}} - \frac{E}{S}_{\text{generic}} \times \text{Sales}$$

#### 4. Valuations of the Kellogg and Coca-Cola brands by Damodaran

Damodaran presents two applications of the method described in the previous section to value the Kellogg and Coca-Cola brands<sup>5</sup>. He uses formulas (5) and (6) to value Kellogg and formulas (8)

<sup>4</sup> Assuming that the ratio (WCR+NFA)/S remains constant.

and (9) to value Coca-Cola. Table 3 contains both valuations. In the valuation of Kellogg, Damodaran calculates the growth  $g$  by multiplying the ROA by the earnings withholding ratio, which is  $(1 - \text{payout})$ . In the valuation of Coca-Cola, he calculates the growth  $g$  by multiplying the ROE by the earnings withholding ratio, which is  $(1 - \text{payout})$ , and the ROE is the earnings to sales ratio multiplied to the sales to equity ratio ( $S/Ebv$ ). Observe that in the case of Kellogg, it is assumed that the growth of fixed assets and working capital requirements (WCR) is zero. In another subsequent valuation, performed in 1998, he priced the value of the Coca-Cola brand<sup>6</sup> at more than 100 billion dollars.

**Table 3. Valuations of the Kellogg and Coca-Cola brands according to Damodaran**

Value of the Kellogg brand 1995				Value of the Coca-Cola brand 1993				Coca-Cola 1998		
	Kellogg	Generic	Difference		Coca-Cola	Generic	Difference	Coca-Cola	Generic	Difference
NOPAT / V	14.08%	6.72%	7.36%	PAT / S	14.40%	12.00%	2.40%	18.56%	7.50%	11.06%
(NFA+WCR)/S	0.00%	0.00%	0.00%	S/Ebv	3.364	1.366	2.00	1.67	1.67	0.00
ROA	32.60%	15.00%	17.60%	ROE	48.44%	16.39%	32.05%	31.00%	12.53%	18.47%
$p$ (payout)	44.00%	44.00%	0.00%	$p$ (payout)	39.00%	39.00%	0.00%	35.00%	35.00%	0.00%
$g$	18.26%	8.40%	9.86%	$g$	29.55%	10.00%	19.55%	20.15%	8.14%	12.01%
$n$ (years)	5	5	0	$n$ (years)	5	5	0	10	10	0
$K_e$	13.00%	13.00%	0.00%	$K_e$	13.325%	13.325%	0.00%	12.13%	12.13%	0.00%
$E/(D+E)$	92.16%	92.16%	0.00%	$p_n$	65%	65%	0%	80.65%	52.10%	28.55%
WACC	12.41%	12.41%	0.00%	$g_n$	6.00%	6.00%	0.00%	6.00%	6.00%	0.00%
$g_n$	5.00%	5.00%	0.00%							

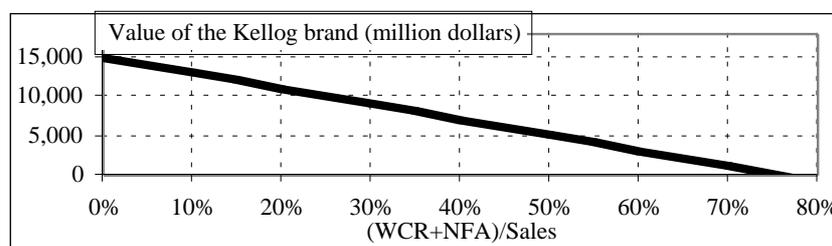
  

$(E+D) / S$	3.39	1.10	2.29	$E/S$	3.07	1.19	1.88	6.13	0.69	5.44
Sales 1994 (\$ million)	6,562			Sales 1992 (\$ million)	13,074			Sales 1997	18,868	
<b>Brand value (\$ million)</b>	<b>15,027</b>			<b>Brand value (\$ million)</b>	<b>24,579</b>			<b>Brand value</b>	<b>102,642</b>	
Enterprise value (\$ million)	22,270			Equity value (\$ million)	40,156			Equity value (E)	115,697	
Brand value / enterprise value	67.5%			Brand value / equity value	61.2%			Brand value / E	88.7%	

## 5. Analysis of Damodaran's valuations

- In the valuation of Kellogg, he considers that  $(WCR+NFA)/S$  is zero.** However, in recent years, Kellogg's  $(WCR+NFA)/S$  ratio has been about 50%. Using this ratio, the brand's value is 5.118 million dollars. Figure 2 shows the sensitivity of the brand's value (according to Damodaran's methodology) to the  $(WCR+NFA)/S$  ratio.

**Figure 2. Sensitivity of the value of the Kellogg brand to the  $(WCR+NFA)/\text{Sales}$  ratio**



- Difficulty in estimating the parameters characterizing a generic brand or private label.**

Table 4 shows the sensitivity of the brand's value (according to Damodaran's methodology) to two

<sup>5</sup> The valuation of Kellogg appears on pages 346-348 of Damodaran (1996), *Investment Valuation*. The valuation of Coca-Cola appears on pages 256-257 of Damodaran (1994), *Damodaran on Valuation*.

<sup>6</sup> Ver [www.stern.nyu.edu/~adamodar/pdfiles/eqnotes/brand.pdf](http://www.stern.nyu.edu/~adamodar/pdfiles/eqnotes/brand.pdf).

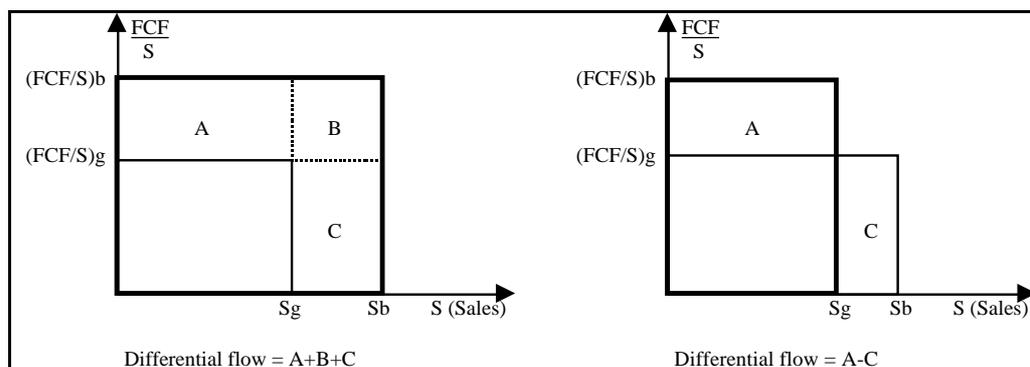
of the generic product's specifications: the NOPAT/S ratio and growth. Observe that when the generic product's growth and the NOPAT/S ratio increase, the brand value decreases considerably.

**Table 4. Sensitivity of the value of the Kellogg brand to the NOPAT/Sales ratio and growth of the generic product**

NOPAT/S	growth of the generic							
	6%	8%	8.40%	10%	12%	14%	16%	18%
5%	17,389	16,996	16,864	16,536	16,077	15,552	14,961	14,436
6.72%	15,749	15,158	15,027	14,568	13,911	13,255	12,468	11,680
8%	14,502	13,846	13,649	13,124	12,337	11,484	10,630	9,712
10%	12,533	11,680	11,549	10,827	9,843	8,859	7,743	6,562
14%	8,662	7,481	7,284	6,234	4,922	3,478	1,969	328
16%	6,693	5,381	5,118	3,937	2,428	787	-919	-2,756
18%	4,790	3,281	2,953	1,706	0	-1,837	-3,806	-5,906
20%	2,822	1,181	853	-525	-2,428	-4,528	-6,693	-8,990

3. It assumes that the current sales of the company with a generic brand are identical to those of the branded company. Figure 3 illustrates two situations in diagram form. The diagram on the left shows a branded company with higher cash flow and volume than the company with a generic product (examples of this situation would be Kellogg, Coca-Cola, Pepsi-Cola and Marlboro). The diagram on the right shows a branded company with a higher cash flow but less volume than the company with the generic product (examples of this situation would be Mercedes, Rolex and Moët&Chandon). There is also a third situation: a branded company with less cash flow but higher volume than the company with the generic product (examples of this situation would be Amazon, Ikea, Bic and Wal-Mart). However, Damodaran assumes in his valuations that initial sales of Coca-Cola and the companies with a generic product are identical.

**Figure 3. Differential cash flows of the branded company (b) compared with the company with a generic product (g)**

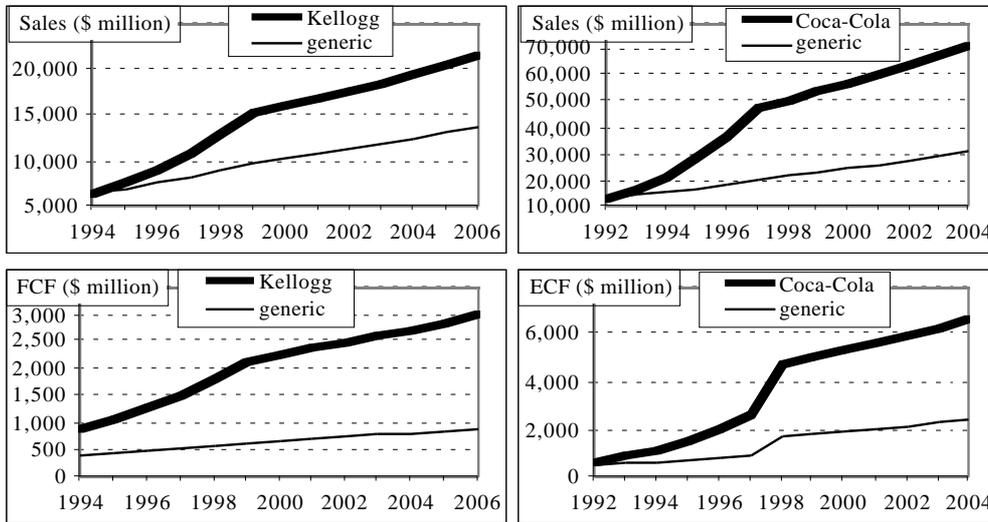


In order to take into account the different volumes, formula (9) should be replaced with (10)

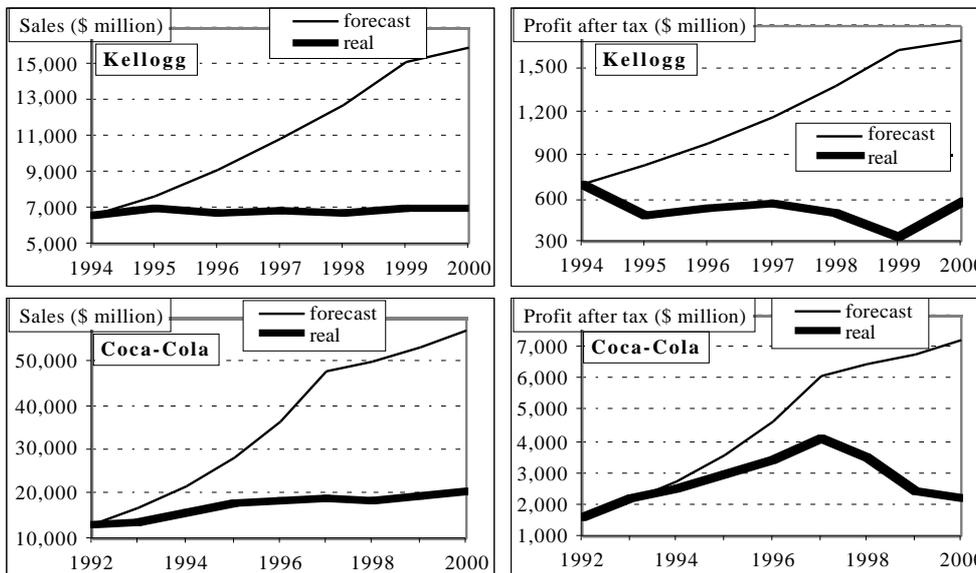
$$(10) \text{ Value of the brand} = \frac{E}{S}_{\text{brand}} \text{ Sales}_{\text{brand}} - \frac{E}{S}_{\text{generic}} \text{ Sales}_{\text{generic}}$$

4. **The hypotheses about the future growth of the branded company and that of the company with a generic product are few and very rigid.** Figure 4 shows forecast sales and cash flows in Damodaran's model for the Kellogg and Coca-Cola brands. Figure 5 shows the difference between the forecasts and subsequent reality. It is obvious that the hypotheses about the brands' growth were very optimistic. During the period 1992-2000, average growth of Coca-Cola's sales was 5.71% and that of its earnings was 3.45%, while the forecast growth for both items was 20.16%. In the case of Kellogg, during the period 1994-2000, average growth of sales was 0.97% and that of its earnings was -3%, while the forecast growth for both items was 15.94%. Observe that in both cases, growth of sales and earnings was below the forecast for the generic products in Table 3. This development explains what happened to Kellogg's and Coca-Cola's share prices, which are shown in Figure 6. Figure 7 shows that, from 1998 onwards, Pepsico progressed substantially better than Coca-Cola. Table 3 shows the market capitalization and shareholder return for Coca-Cola, Kellogg and Pepsico between 1989 and 2000.

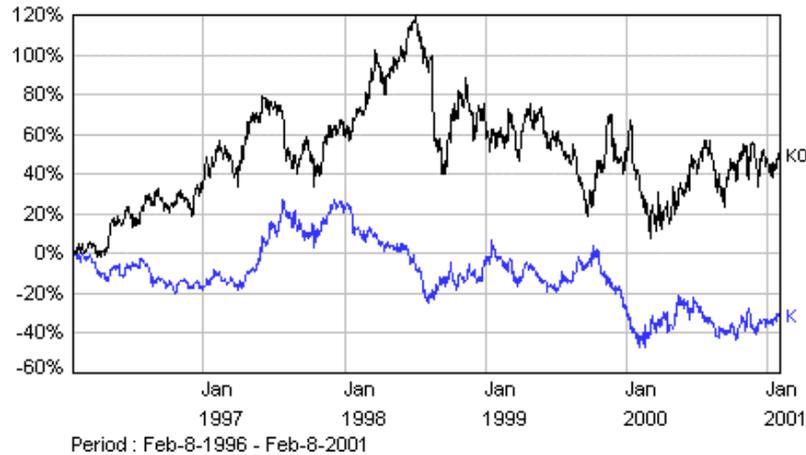
**Figure 4. Forecast sales and cash flows in Damodaran's valuation**



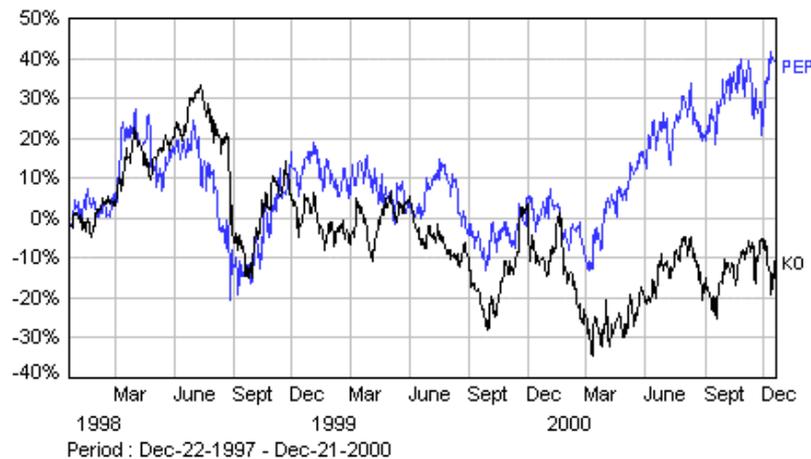
**Figure 5. Actual and forecast sales and earnings in Damodaran's valuations**



**Figure 6. Course of Kellogg's (K) and Coca-Cola's (KO) share prices from January 1996**



**Figure 7. Course of Pepsico's (PEP) and Coca-Cola's (KO) share prices from January 1998**



**Table 5. Growth of Coca-Cola, Kellogg and Pepsico**

	Equity market value (\$ billion)											
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Coca-Cola	26	31	53	55	58	66	93	131	165	165	144	150
Kellogg	8	9	16	16	13	13	17	14	20	14	12	11
PepsiCo	17	20	27	33	33	29	44	45	55	60	51	70
Coca/Pepsi	1.57	1.52	2.00	1.66	1.78	2.31	2.12	2.88	3.00	2.75	2.80	2.14

	Shareholder return											
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Coca-Cola	77%	23%	75%	6%	8%	17%	46%	43%	27%	1%	-12%	5%
Kellogg	8%	16%	76%	4%	-13%	5%	36%	-13%	48%	-31%	-6%	-13%
PepsiCo	65%	24%	32%	24%	0%	-10%	57%	6%	22%	10%	-12%	37%

## 6. Interbrand's valuation method<sup>7</sup>

Table 2 showed the ranking published by Interbrand in 2000 of the 80 most valuable brands. Interbrand values the brand by multiplying the brand's differential earnings by a multiple. This multiple is obtained by quantifying the factors that, according to Interbrand, determine the brand's strength. Table 6 includes an example detailing the steps followed by Interbrand's method to calculate the brand's differential earnings.

**Table 6. An example of the calculation of the brand's differential earnings according to Interbrand**

(million dollars)	year -2	year -1	year 0	forecast year +1
Earnings before interest and taxes (EBIT)	820	920	824	900
- private label EBIT	300	320	340	360
Brand's differential EBIT	520	600	484	540
Inflation adjustment factor	1.10	1.05	1.00	
Present value of the brand's differential EBIT	572	630	484	
Weighting factor	1	2	3	
Brand's weighted differential EBIT			547	
Allowance for future reduction of EBIT			-	
Capital remuneration			-162	
Brand's differential earnings before tax			385	
Tax			135	
<b>Brand's differential earnings</b>			<b>250</b>	

It usually starts with a weighted mean<sup>8</sup> of the historic differential earnings before interest and tax (EBIT) for the last three years (obtained by subtracting the EBIT corresponding to an unbranded or private label generic product<sup>9</sup>) and eliminating the EBIT corresponding to activities not related with the brand's identity. When the weighted mean of the historic EBITs is greater than the brand's forecast EBIT for future years, an allowance is made to take this decrease into account. Capital remuneration and tax are then deducted to give the brand's differential earnings.

In order to calculate the multiple to be applied to the brand's differential earnings, Interbrand calculates the "brand strength", which is a weight composed of seven factors:

1. *Leadership*. A leading brand is more stable and has more value than another brand with a lower market share, because leadership gives market influence, the power to set prices, control of distribution channels, greater resistance to competitors, etc.
2. *Stability*. Brands that have become consolidated over long periods of time or which enjoy a high degree of consumer loyalty obtain high scores in this factor.
3. *Market*. A brand in a stable, growing market with high entry barriers will score very high.
4. *Internationality*. Brands operating in international markets have more value than national or regional brands. However, not all brands are able to cross cultural and national barriers.
5. *Trend*. A brand's tendency to keep up-to-date and relevant for the consumer increases its value.
6. *Support*. Brands that have received investment and support must be considered to be more valuable than those that have not. The quantity and quality of this support is also considered.
7. *Protection*. The robustness and breadth of the brand's protection ("legal monopoly") is a critical factor in its valuation.

Table 7 shows an example of how four brands belonging to different markets are rated<sup>10</sup>.

<sup>7</sup> Interbrand is a multinational specialized in brand creation, strategy, research, design, law and valuation. [www.interbrand.com](http://www.interbrand.com)

<sup>8</sup> In many cases, a weighting factor of three times for the present year, twice for the previous year and once for the year before that is applied. The historic EBITs are also adjusted for inflation.

<sup>9</sup> To quantify the EBIT attributable to the unbranded product, Interbrand recommends considering that:

- An unbranded product normally does not have the volume or demand stability of a branded product.
- The brand provides economies of scale from the increased output and demand stability.
- A branded product can be sold at a higher price than its unbranded counterpart.

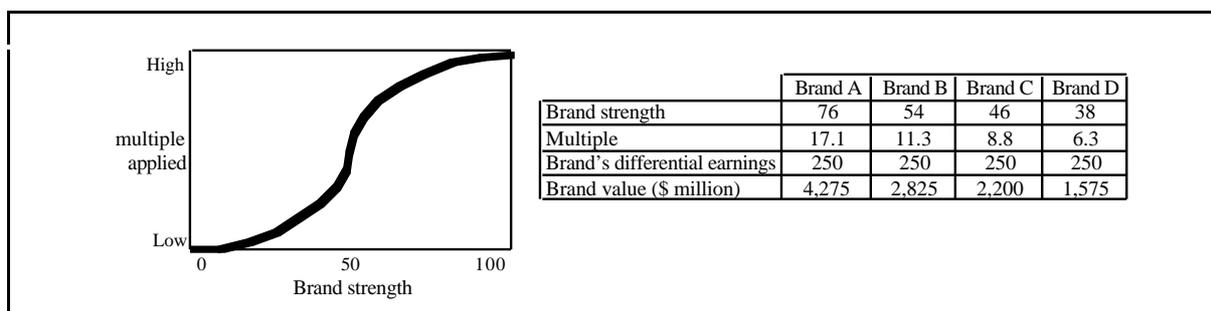
<sup>10</sup> In order to rate each strength factor, it is necessary to carefully study the brand, its positioning in the markets it operates in, activities performed in the past, future plans, brand risks, etc. In addition to making inspection visits to wholesalers and retailers, the packaging and TV and press advertisements are also examined.

**Table 7. Examples of brand strength calculations according to Interbrand**

<b>Brand A.</b> An international brand that has been established in the toiletries market for many years. The brand was and is number one or number two, depending on the country.					
<b>Brand B.</b> Leading national brand in the food industry. It operates in a mature, stable market but in which tastes are changing from traditional products to precooked or easy-to-prepare products. The brand's export sales are limited, and the legal protection is based more on common law than on strong registration rights.					
<b>Brand C.</b> National secondary drinks brand with good growth possibilities which was launched five years ago. The market is very dynamic and growing. The brand has received strong support but it is still too soon for this support to give tangible results. The brand has no registration problems in its home country. The brand is being developed for international positioning.					
<b>Brand D.</b> A minority but stable regional brand operating in a fragmented but also stable market.					
Strength factors	maximum score	Brand A	Brand B	Brand C	Brand D
Leadership	25	19	19	10	7
Stability	15	12	9	7	11
Market	10	7	6	8	6
Internationality	25	18	5	2	0
Trend	10	7	5	7	6
Support	10	8	7	8	5
Protection	5	5	3	4	3
<b>Brand strength</b>	<b>100</b>	<b>76</b>	<b>54</b>	<b>46</b>	<b>38</b>

As Figure 8 shows, the brand strength is expressed as a multiple on an “S”-shaped curve. The multiple’s maximum value is mainly determined by the market PER<sup>11</sup>. The maximum multiple varies in different industries and also over time. In the example shown in Figure 8, the maximum multiple is 20. In all four cases, we assume that the brand’s differential earnings are 250 million dollars.

**Figure 8. Valuation of the four brands according to Interbrand**



## 7. Comment on Interbrand’s method

Quantifying the brand’s differential earnings (basically by estimating the private label’s EBIT), brand strength and multiple is a highly subjective matter. Furthermore, brands such as Coca-Cola or Pepsi-Cola are not equally strong on all markets nor in all products (do you know the name of Coca-Colas tonic water?). Pepsi, for example, has market shares ranging from 1% to 100%, depending on the country. Even in Spain, the market share in the Canary Islands is close to 50%, while it does not even reach 15% on mainland Spain.

Valuing any brand using this method seems highly subjective to me, not only because of the parameters used but also because of the methodology itself.

However, analyzing the strength factors for each brand/geographical area/format enables comparisons to be made and may provide guidelines for identifying the brand’s and company’s main value drivers, increasing the brand’s strength and, therefore, its value.

## 8. Financial World's valuation method

One the best-known brand rankings is that created by Financial World. In order to value and rank brands, FW uses a simplified version of Interbrand's method, consisting of obtaining the difference between one brand's earnings and the earnings that should be obtained by a basic, unbranded version of that product. This difference is called "brand-specific net earnings". Finally, FW also applies a multiple calculated with respect to the brand's strength. The result is the brand's value. This model determines the brand's strength by analyzing five components: leadership, stability (consumer loyalty), internationality, continued importance of the brand within its industry, and security of the brand's proprietorship. The model's limitations are identical to those of Interbrand's model.

**Table 8. The most valuable brands in 1996 according to Financial World (million dollars)**

brand	Brand value	brand	Brand value
1 Marlboro	44,614	6 Kodak	13,267
2 Coca-Cola	43,427	7 Kellogg's	11,409
3 McDonald's	18,920	8 Budweiser	11,026
4 IBM	18,491	9 Nestlé	10,527
5 Disney	15,358	10 Intel	10,499

## 9. Houlihan Valuation Advisors' method

According to this method, the brand's value is the present value of the company's free cash flow less the assets employed multiplied by the required return. An example provided by Houlihan Valuation Advisors<sup>12</sup> (and corrected) is shown in Table 9.

**Table 9. Brand valuation according to Houlihan Valuation Advisors (\$ million)**

Assets employed	Required return	2000	2001	2002	2003	2004	2005
Working capital requirements (WCR)	6%	90.0	91.8	93.6	95.5	97.4	99.4
Net fixed assets	9%	225.0	229.5	234.1	238.8	243.5	248.4
Intangible assets	14%	75.0	76.5	78.0	79.6	81.2	82.8
Patents	15%	10.0	10.2	10.4	10.6	10.8	11.0
Proprietary technology	20%	15.0	15.3	15.6	15.9	16.2	16.6
Company's free cash flow		44.080	44.887	46.956	49.112	51.361	53.705
- Assets employed x required return		-40.645	-41.458	-42.291	-43.133	-43.995	-44.875
Free cash flow attributable to brand		3.435	3.429	4.665	5.979	7.366	8.830
Value of brand		<b>50.34</b>					

= present value (brand's free cash flow, 16%). Growth after 2005 = 4%

Observe that the free cash flow attributable to the brand is somewhat similar to the EVA. This method does not make much sense. It replaces the cash flow attributable to a generic product company with the assets employed by the branded company multiplied by the assets' required return. Can the reader find any justification for this?

## 10. Other methods proposed by different consulting firms

The Chicago firm *Market Facts* has developed a curious method which it calls "conversion model" and which seeks to measure the strength of the psychological commitment between a brand and

<sup>11</sup> Interbrand makes a more than debatable statement: "the highest multiple on the brand strength scale should be clearly above the average PER of the industry which the company operates in".

its consumers. According to this consulting firm, this model’s rationale is based on religious conversion studies. The model divides a brand’s users into four groups on the basis of the strength of their commitment: unshakable, average, superficial and convertible. It also classifies non-users on the basis of their willingness to try the brand: approachable, ambivalent, slightly unapproachable and strongly unapproachable. Market Facts states that the difference between the size of the convertible and approachable segments is a significant indicator of the brand’s future health.

*Young & Rubicam* use the *brand asset valuator* (BAV), which breaks down the link between brand and consumer into two areas: vitality and stature. In turn, the brand’s vitality can be subdivided into relevance and differentiation; and the brand’s stature can be subdivided into esteem and familiarity. According to *Young & Rubicam*, the fact that a brand is differentiated does not mean that consumers wish to buy it; it must also be relevant. A brand has esteem when the consumer appreciates its quality. Familiarity is when the consumer knows the brand. Both factors must be present for the brand’s stature to be high. This method only allows a qualitative valuation of the brand.

*CDB Research & Consulting* conducted a telephone survey of 1,191 analysts and pension fund managers to value one thousand companies on eight factors: potential for cost reductions, innovation, absence of regulatory problems, brand ownership, customer loyalty, capacity for increasing sales, employee relations, and potential for improving productivity. They were asked to rate the companies from 1 to 10 for each of the 8 factors mentioned. Using these scores, an index was calculated (*hidden value index*) for each company and the 389 companies for which sufficient answers were obtained were ranked.

### 11. Brand value drivers. Parameters influencing the brand’s value

Table 10 assumes that the enterprise value is the sum of the value of a generic product company plus the value of the brand. The (generic) product contributes part of the enterprise value and the brand contributes another part.

What makes brand valuation different is to understand how the brand creates value for the company and measuring this value creation correctly. The main difficulty lies in measuring “differentials” (return, cash flow growth, operating risk, etc.). In the case of a company whose main business is managing a name (a brand) which it licenses to other companies (franchises) in return for payment of certain royalties, this difficulty disappears because the company’s sole activity is managing its brand. However, if the company also manufactures and sells the products, the difficulty lies in determining what part of the cash flows corresponds to the brand, and what part to the generic product.

**Table 10. Brand value and main factors affecting it (brand value drivers)**

BRAND VALUE						
Differential flows		Required return				Communication
Differential return expectations	Differential growth expectations	Risk-free interest	Market risk premium	Differential operating risk	Differential financial risk	Quality perceived and offered

<sup>12</sup> See [www.houlihan.com/services/brand\\_article/brand\\_article.htm](http://www.houlihan.com/services/brand_article/brand_article.htm). The brand’s value according to this is 49.13 billion, instead of 50.34, which is the correct net present value. Houlihan’s error lies in the calculation of the terminal value: the consulting firm gives a terminal value of 73.581 million when it is 76.524 million.

The main factors affecting the differential return expectations are:

- Period of competitive advantage
- Differential assets employed
- Differential margin on sales, that is, the difference between differential prices and costs.
- Regulation. Brand protection
- Consumer loyalty
- Emotional benefits

The main factors affecting the differential growth expectations are:

- Brand-customer relations
- Entry barriers<sup>13</sup>
- Acquisitions / divestitures
- Leadership
- Industry's competitive structure
- New businesses / products
- Technological progress
- Real growth options

The main factors affecting the differential operating risk are:

- Legislation.
- The brand's internationality
- Buying / buyable brand
- Risk perceived by the market
- Company financing

The main factors affecting the differential financial risk are:

- Brand/company liquidity
- Brand size
- Risk control

## **12. What is the purpose of valuing brands?**

To say that the Real Madrid brand is worth 155 million dollars or that the Coca-Cola brand is worth 72.5 billion dollars is useless. As we have already discussed in previous sections, this is due to shortcomings in the valuation methods used and the difficulty in defining which cash flows are attributable to the brand and which are not. However, the brand valuation process is very useful, since it helps identify and assess brand value drivers. This assessment consists of comparing a brand's value drivers with those of other brands/companies, with the brand's previous drivers and with the proposed goals.

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<sup>13</sup> As Aaker points out, "it is much easier to copy a product than an organization, which has distinctive values, individuals and programs".

The brand valuation process increases the amount of information held by the company about its brand and it should be developed so that it can be used as a management tool for value creation. A good brand valuation process is a tool that helps maintain a coherent strategy over time and assign marketing resources consistently.

### **13. Brand value as a series of real options**

A brand can be considered as an asset that currently provides certain margins per unit that are higher than those of an unbranded product and a differential volume, and which also provides the brand's owner certain real options for future growth. These real options may be geographical growth, growth through the use of new distribution channels, growth through additional differentiation, growth through the use of new formats, growth through the possibility of gaining access to new market segments, withdrawal facilitated by the use of franchises...

One of the prerequisites of adequate brand management is to take into account the real options provided by the brand for making decisions that increase (and do not decrease) these options' value. This is only possible with a correct long-term analysis because the decisions affecting the real options' value must be made before (sometimes several years before) exercising the options.

### **14. Brand accounting**

Should brands be included as a company asset? The advocates of "brand capitalization" point out that a company's brands are often its most important assets, more important even than the bricks, mortar and machines, whose value is included in the accounts. "One cannot ignore brands or intangible assets," insists Chris Pearce, Rentokil's CFO and President of Group 100, a technical committee of CFOs. "They are things that have a real value and are sold between companies on a relatively regularly basis. Companies may pay large sums of money for them and, therefore, they should be included as an asset in the balance sheet."

Its opponents argue that it is impossible (or at least very difficult) to allocate values to brands separately from the companies that create them. It is possible to assign a value to a brand that has recently changed hands, but the inclusion of "home-grown" brands is particularly risky, because there is no generally accepted valuation method.

Capitalizing brands would improve corporate earnings at the cost of worsening cash flow, which, from a financial viewpoint, is nonsense.

#### **Accounting treatment of brands and intangible assets in the United States**

Recognition of goodwill: only when buying businesses and as the difference between the price paid and the purchased company's book value. Depreciation of goodwill: over its useful life and not more than 40 years. It may be written off if its value should deteriorate or disappear. Definition of intangible assets: separately identifiable rights that have usefulness and value. Depreciation of intangible assets: over their useful life. They may be depreciated immediately in the event of deterioration.

## 15. Valuation of intellectual capital

In recent years, a lot has been spoken about the value of companies' intellectual capital. However, almost all of the studies on the subject are highly descriptive and a long way from obtaining a valuation in euros<sup>14</sup>.

In April 1997, Johan Ross and Göram Ross published the article "A second Generation of IC-Practices"<sup>15</sup>. In the first part of the article, they describe and analyze the "first-generation" intellectual capital practices, the systematic visualization and measurement of the different forms of intellectual capital. The "second-generation" intellectual capital practices expand on the "first generation" by consolidating the measurements in an aggregate intellectual capital index. According to these authors, "*intellectual capital*" (IC) can be described as the difference between a company's market value and its book value.

According to Skandia, a large Swedish insurance and financial services company, the IC consists of human capital and structural capital. The *human capital* represents employees' knowledge, skill and ability to provide satisfactory solutions for clients. The *structural capital* is that which remains when the employees go home: databases, client files, software, manuals, brands, organization structures, etc. It is further subdivided into three IC focuses: renewal and development focus, client focus, and process focus. Table 11 shows the application of the *Navigator* model to one of the divisions: American Skandia<sup>16</sup>. According to Skandia, this type of report provides a more systematic description of the company's ability and potential to transform intellectual capital into financial capital. However, the way we see it, it is simply a series of data on turnover dressed with a few efficiency ratios. Can the reader "visualize" or value intellectual capital by looking at Table 11?

**Table 11. American Skandia. Report on the company's potential for converting intellectual capital into financial capital**

FINANCIAL FOCUS	1997 (6)	1995	HUMAN FOCUS	1997 (6)	1995
Return on invested funds	12.8%	28.7%	Number of full-time employees	509	300
Operating margin (MSEK)	516	355	Number of managers	87	81
Value added/employee (SEK 000s)	1,477	1904	Female managers	42	28
CLIENT FOCUS			Training expenses/employee (SEK 000s)	8.3	2.5
Number of contracts	160,087	87,836	PROCESS FOCUS		
Savings/contract (SEK 000s)	480	360	Number of contracts/employee	315	293
Redemption ratio	4.3%	4.1%	Administrative expenses/gross premiums (%)	3.1%	3.3%
Points of sale	40,063	18,012	IT expenses/administrative expenses (%)	5.7%	13.1%
RENEWAL AND DEVELOPMENT FOCUS			Time spent processing new contracts (days)	7	8
Increase in net premiums	35.0%	29.9%			
Development expenses/admin. Expenses	8.7%	10.1%			
Staff under 40	71%	81%			

Source: Skandia

<sup>14</sup> However, they normally do not include employees' salaries in intellectual capital. However, we feel that this is a major component of this capital.

<sup>15</sup> Based on the book by Roos, Roos, Edvinsson and Dragonnetti: *Intellectual Capital; Navigating in the New Business Landscape*, Macmillan, 1997.

<sup>16</sup> American Skandia guarantees variable annuities (unit-linked insurance) on the American market. The unit-linked insurance is a life insurance scheme consisting of a combination of national and international mutual funds and in which

The formula given by Roos and Roos for valuing intellectual capital is the following:

$$\text{Equity value} = \text{Level of usage} \times (\text{replacement value} + \text{intellectual capital}) + \varepsilon$$

According to the authors,  $\varepsilon$  is the value of the company that has no rational explanation and the level of usage is the ratio between the equity's value and its "potential" value. This formula is a step forward compared with assuming that the intellectual capital is the difference between the shares' market value and book value, but we would like to ask the authors how they calculate the level of usage and  $\varepsilon$ . We imagine they do not know how to calculate  $\varepsilon$  because, as far as we know, the authors are not the richest men in the world.

We have included this section to point out that valuing intellectual capital is an area in which little work has yet been done. Indeed, it is by no means clear what the company's intellectual capital is, and even less so if we intend to value the company's brand and intellectual capital separately.

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the client decides in which fund he will invest his contributions, thereby assuming the investment's risk, by choosing the risk/return mix best matched to his investment profile.