Corporate Finance in the Global Environment

Individual Report: EU Region

Value Management at Abengoa S.A. within the Biofuel Industry

European Union (EU) Region

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Value Management Analysis

Value Creation / Destruction Trends

Abengoa S.A. is a Spanish global engineering conglomerate with a focus on sustainability in infrastructure, environment, and energy projects. The following provides an examination of value management at the firm. For general background on Abengoa and the biofuel industry, please see Appendix Tables 8 and 9.

Several factors are apparent in Abengoa's Value Drivers (Table 4): excellent Operating Efficiency (OE) factors, positive and fairly consistent Return on Equity (RoE) components, and a positive Self-Sustainable Growth Rate (SSGR). On the surface we see a well-managed, growing operation with consistently positive Return on Invested Capital (ROIC) and upward-trending Retained Earnings. Concerns include unpredictable year-to-year sales growth, broadly fluctuating tax rates, and a rapidly inflating Accounts Payable (AP) current liability.

Digging below the Value Driver numbers, interpretation of the strong OE Ratios are enhanced by a closer look at the consistently negative Working Capital Requirements (WCR) (Table 7). The negative WCR, a great benefit to the firm, has led us to remove the Liquidity Measures, as no external funding is needed to support operations, the matching principle being observed (no long-term liabilities are funding current assets). This healthy OE picture contributes to a SSGR which averages 16% over the past 4 years, indicating the firm can grow at a healthy annual pace without resort to external capital.

A concern is the size of AP, currently at €3.8m and growing apace, outstripping operations (2008 - 9 seeing AP expansion of 34% versus 21% growth in total assets and 16% in current assets). The high overall AP is indicative of many pre-negotiated commodity supply contracts, particularly feedstock toll agreements for Abengoa Bioenergy. However, such standing purchase obligations are also a liability, sensitive to macroeconomic and fundamental pricing shifts.

ROE is strong and consistent, averaging 21% over 4 years. Looking more closely at the ROE components, corporate taxes appear overall quite low and somewhat irregular, with a tax rebate windfall in 2008. The tax return is apparent as a large spike in After-Tax ROIC that year. Considering the sensitivity of NOPAT to taxes, the overall wide variance in tax rates is a cause for concern. Other factors are fairly regular: Capital Turnover trends slightly downward year-to-year, indicating a 'not-unusual' deteriorating efficiency in the use of capital as the company scales.

In 2008, during the depths of the Global Financial Crisis, a large hit was taken to financial income, which dipped from -€127.7m in 2007 to -€293.9m. The 2008 Annual Report explained this loss as being due to adverse interest rate movements associated with projects financed via fixed, non-recourse arrangements (Abengoa CC, 2010). Also, provisions of €65m were recorded against negative valuations in interest and exchange rate financial instruments (not being classified as hedging vehicles according to accounting rules). This potential loss in 2008 was offset by the large tax windfall of €107.6m. This 'Income Statement-saving' one-time tax gain was explained as being associated with Spanish government export tax deductions, booked R&D tax credits, and tax-legislation-related windfalls.

In addition to hedging, Abengoa speculates in the financial and commodity markets and sometimes bets wrongly, as happened to the tune of nearly € 300m in 2008. From the standpoint of an investor seeking to understand risk, there are substantial risks being taken related to financial speculation in the derivatives markets. However, financial engineering risk aside, the real question is whether firm overall growth is real as well as sustainable: in short, whether real economic value is being created.

Impact of Corporate Governance

Abengoa S.A. ownership includes three major investment corporations: ICSA 50%, Finarpisa 6% (majority-owned by ICSA), and BlackRock 4%, an American global asset management firm. In 2008, the Benjumeas brothers were re-elected for another 4-year BoD Chairmanship period. In terms of Corporate Governance, Board and Committee management of Abengoa is highly centralized and dominated by the Benjumea family. For an overview of Abengoa and Abengoa Bioenergy's Boards and Committees, see Table 6. The Benjumea family directly holds 4 of 16 Board of Director (BoD) seats.

The major Committees are: Appointments & Remuneration, Audit, and Strategy. Only Strategy is staffed by non-BoD members. There is some concern related to the lack of non BoD representation on the core financial committees, although some members are listed as being external / independent to Abengoa. Evidence of a lack of arm's distance audit advice may be resident in the 2008 complications with derivatives accounting and the unusual tax rebate. As observed, Abengoa is active in financial engineering, otherwise being a core aspect of commodity trading activities. Active derivative instruments recorded as assets were at €45.5m in 2009 and €100m in 2008, those recorded as liabilities were at €96m and €66m, respectively. The 2008 Annual Report notes that derivative trades previously identified as hedges according to accounting rules needed to be restated as investments, leading to the booking of substantial financial losses. The BoD exclusive composition of the Audit Committee in this respect indicates a relationship that may not be sufficiently arm's distance for objective auditing.

Concerning Remuneration, in 2009 the remuneration of the board of directors at Abengoa was reduced by more than 4% in relation to the year prior. Felipe Benjumea was remunerated with € 3.9 million, a reversal from previous years when pay increased at steady 33% annual rate (CincoDias Staff, 2010). This indicates that austerity measures are being felt and enacted all the way to the BoD level, an indicator of proper remuneration control, although this could also be interpreted as a cynical measure to keep activist shareholders at bay.

The Strategy Committee has the most non-BoD membership and has specific roles identifying with key areas, including Human Resources, Finance, Investor Relations, Institutional Relations, and Sustainability (see Table 6). Such roles connect directly with Abengoa's professed 'Management Model', as seen in Figure 1 below. The effects of solid strategy planning via this model can be seen in the firm's value management approaches. In particular, solid operational finance management, continual technical innovation, and international diversification are apparent in how Abengoa manages capital.

Our Management Model

Growth at Abengoa is founded on five strategic cornerstones:

1. Creation of **new businesses** that help combat climate change and foster sustainable development.
2. A dedicated and highly competitive **human team**.
3. Permanent strategy of creating value by generating new options and defining **current and future businesses** through a structured process.
4. **Geographic diversification** in the markets offering the greatest potential.
5. Heavy investment in **research, development and innovation**.

These cornerstones are shaped through a management model based on three core concepts:

1. Corporate social responsibility.
2. Transparency and rigor in management.
3. Fostering of business spirit.

FIGURE 1: *As per Abengoa Annual Report (Abengoa CC, 2009)*

Abengoa has diversified horizontally and internationally in order to distribute risk, smooth growth, and realize tax benefits in the interests of steady shareholder (and owner-familial) wealth creation. International distribution of bioenergy operations includes USA, Brazil, and Europe. Pushing the frontiers of technology is a central goal of Abengoa Bioenergy, which states: "cellulose bioethanol technology capacities, coupled with its farming, productive and local marketing capacities, will give rise to very important synergies enabling the company to register significant growth in the world bioethanol market" (Abengoa CC, 2010).

Initially, Abengoa Bioenergy was established to meet EU and US benchmarks for ethanol production and to increase the energy yield efficiency of crops. Its long-term strategy is to mass-produce high ethanol blends from wood cellulosic biomass. Both in its short and long term strategies, Abengoa has made abundant use of government subsidies (Tribe, 2007). For R&D, the firm engages in joint ventures and partnerships. All current R&D programs are either partly or fully subsidized by the US Department of Energy or the EU and involve major partners such as BP, Dow, and Cargill.

Reflection on Value Measures

Based on EVA and a fairly consistent negative Return Spread (a deficit between AT ROIC and WACC, as per Table 5), Abengoa can be classified as a value destroying company with a cash surplus. In the past four years, total assets have been growing at an average rate of 40%, but there has been little core improvement in EVA, aside the 2008 tax windfall. However, MVA has been consistently positive over the past four years: equity investors have bid-up the company's stock, injecting a 'vote-of-confidence' in future potential growth / returns. This equity market-valuation 'buys-into' the notion that management is sacrificing short-term value creation for strategic, long-term growth. This can be observed in the decisions to deploy capital to diversify internationally and to push technical boundaries, such as in the recent announcement of the hybrid cellulosic ethanol plant initiative in the US. The positive MVA indicates equity investors believe management's plan to build a foundation for future growth, sacrificing annual EVA for the promise of future NPV-positive cash flow streams. However, it is worthy to note that the positive annual MVA trend is declining: the change (Delta MVA) in the past year is more than -200% (declining from €932m to €274m). This indicates that investors may gradually be losing patience: as of September 30th ABG was quoted at €18.70, down 15.33% year-to-date from €22.30 at the close of 2009.

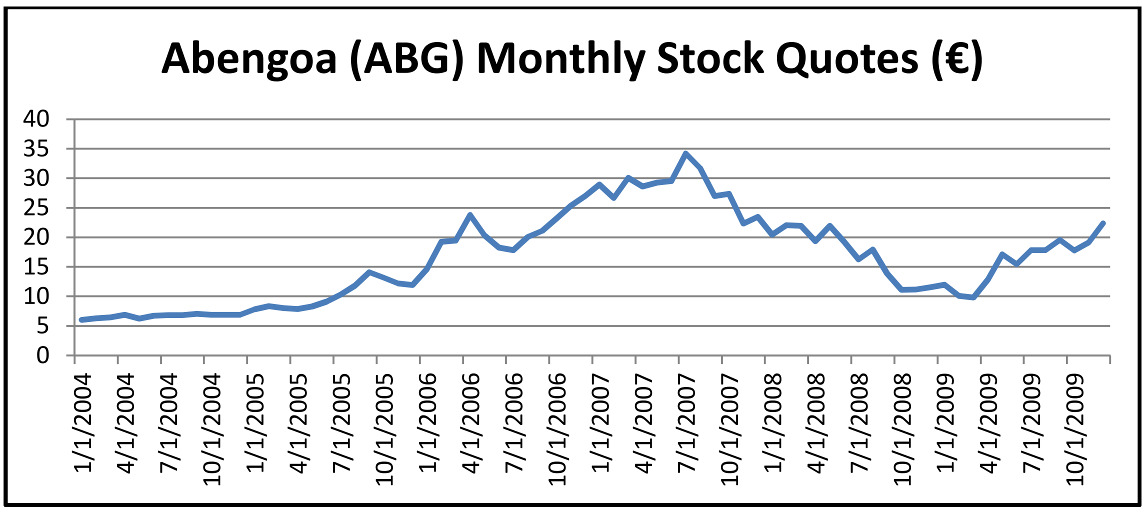

FIGURE 2: *Abengoa (ABG) Monthly Stock Quotes (€)*

Other positive factors which offset the negative EVA trend include well-managed WCR, showing as consistently negative and declining. The negative WCR growth has been largely due to an immense 'supplier accounts payable' liability, indicating that Abengoa has exerted influence on suppliers to extend credit. A portion of this may be due to pre-negotiated biofuel feedstock 'tolling agreements'. It is not clear this can be sustained indefinitely, however, particularly if core firm value continues to be sacrificed for growth and should equity valuation waiver. Maintaining the large current accounts liability depends upon the firm's ability to maintain its credit standing, perceived and actual. Implications in the press are that Abengoa's dynastic owners have and do enjoy some amount of special status within Spain, but this does not logically extend to the international markets. Abengoa must 'market' its strategic plan to invest in growth to an increasingly global and diverse set of capital providers.

Abengoa appears to be conservative about capitalizing R&D expenses, with the exception of 2008. Capitalizing R&D expenses would bolster profits (by reducing expenses) and would increase Invested Capital and Retained Earnings (as Fixed Assets would expand). However, booking R&D into Fixed Assets would reduce ROA-associated measures, including ROIC and EVA. It is possible management 'banks' R&D credits for a 'rainy day' (profit-challenged year), as seen in 2008 when the company decided to book outstanding R&D credits to bolster profits.

Towards the future, management must validate the trust-premium of equity investors by realizing the capital sunk into international expansion and new technologies. ROIC can be increased by improving core operating margins: higher volumes at higher prices and lower operating expenses. WACC (Table 5) could be restated ('de-risked') based on lower global capital-risk premiums (as opposed to the high relative Spanish premiums cited). However, the average 4-year annual AT ROIC of 2.6% is an impossible hurdle to overcome via pure WACC optimization. The firm's best opportunities for improvement going forward are to improve core operational margins. Management has been focused on top-line shareholder measures (RoE, Equity Retention, and Gross Margin), but must retrench and refocus on value creation via core AT ROIC and EVA in 2011 to sustain equity investor and credit provision confidence. In value management terms specific to corporate governance, the desire to grow, develop, diversify, and expand must now give way to core operational value creation.

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APPENDIX

Table 1: Income Statement (5 years)

ABENGOA CONSOLIDATED INCOME STATEMENT Years Ending: Dec 31, 2005 - 2009 (in thousands of Euros (€))					
INCOME STATEMENT	**2009**	**2008**	**2007**	**2006**	**2005**
Current Assets					
Gross Oper Revenue (Net Sales or Net Turnover)	**4,147,315**	**3,769,202**	**2,655,756**	**2,677,186**	**2,023,515**
Cost of Goods Sold (COGS) (-)	**(3,793,735)**	**(3,643,170)**	**(2,422,401)**	**(2,458,014)**	**(1,860,064)**
Change in inventory	(23,662)	20,608	26,995	2,541	(817)
Other operating income	1,275,627	1,060,348	332,524	134,690	35,704
Materials consumed	(3,057,700)	(2,976,807)	(1,880,737)	(1,645,700)	(1,162,857)
Personnel expenses	(736,027)	(666,348)	(351,296)	(402,719)	(325,908)
Depreciation and amortization	(319,436)	(178,371)	(89,551)	(68,679)	(52,906)
R&D costs	(51,145)	(41,720)	(20,984)	(23,239)	(18,305)
Other operating expenses	(881,392)	(860,880)	(439,352)	(454,908)	(334,975)
Other operating income & expenses	77,400	236,800	-	-	-
Net Operating Profit (EBIT)	**430,980**	**362,832**	**233,355**	**219,172**	**163,451**
Net Financial Profit / Loss (-)	**(181,430)**	**(313,927)**	**(127,674)**	**(91,856)**	**(58,757)**
Financial income	14,124	30,890	22,630	24,430	22,709
Financial charges	(213,091)	(276,681)	(164,707)	(119,239)	(70,409)
Net exchange differences	67,777	(61,020)	19,959	8,283	(1,695)
Other net financial income/ expenses	(50,240)	(7,116)	(5,556)	(5,330)	(9,362)
Particip. profits/losses of assoc. co's (+)	11,246	9,244	4,243	7,532	5,359
Consolidated Profit Before Tax (EBT)	**260,796**	**58,149**	**109,924**	**134,848**	**110,053**
Corporate income tax (+)	(58,058)	107,628	(10,065)	(13,345)	(31,572)
Corporate tax rate	*22%*	*-185%*	*9%*	*10%*	*29%*
Consolidated Profit After-Tax (EAT)	**202,739**	**165,778**	**99,860**	**121,504**	**78,481**
Item from discontinuing operations	-	-	35,960		
Profit from minority interests cont ops	(32,432)	(25,375)	(1,733)	(21,164)	(12,477)
Profit from minority interestes disc ops			(13,683)		
Profit Attributable to Parent Co (NOPAT)	**170,307**	**140,403**	**120,405**	**100,340**	**66,004**
No. of ordinary shares circulating (x1000)	*90,470*	*90,470*	*90,470*	*90,470*	*90,470*
EPS for the year's result	*1.88*	*1.55*	*1.33*	*1.11*	*0.73*

Table 2: Balance Sheet (5 years)

ABENGOA CONSOLIDATED BALANCE SHEETS - Long Form Years Ending: Dec 31, 2005 - 2009 (in thousands of Euros (€))					
ASSETS	**2009**	**2008**	**2007**	**2006**	**2005**
Current Assets					
Cash & Equivalents	**1,546,431**	**1,333,748**	**1,697,889**	**1,027,972**	**435,366**
Accounts Receivable	**2,002,169**	**1,343,305**	**1,420,860**	**982,053**	**525,595**
Trade Receivable	1,459,501	919,351	1,145,786	714,414	365,823
Credits	542,668	423,954	275,074	267,639	159,772
Inventories	**345,589**	**316,093**	**242,451**	**150,737**	**137,806**
Financial investments	**481,964**	**661,703**	**596,447**	**481,739**	**379,734**
Total Current Assets	**4,376,153**	**3,654,849**	**3,957,647**	**2,642,501**	**1,478,501**
Non-Current Assets (Fixed)					
Intangible Fixed Assets	**1,490,884**	**1,056,891**	**1,227,022**	**623,336**	**348,667**
Tangible Fixed Assets	**1,864,199**	**1,035,062**	**870,861**	**639,745**	**542,723**
Fixed Assets in Projects	**3,623,274**	**2,249,773**	**1,638,139**	**1,146,907**	**681,767**
Financial Investments Non-Current	**1,015,350**	**765,704**	**416,487**	**374,089**	**271,066**
Total Non-Current Assets	**7,993,707**	**5,107,430**	**4,152,509**	**2,784,077**	**1,844,223**
Non cur asset sale (discontinued ops)	-	1,032,333	-	-	-
Total Assets	**12,369,860**	**9,794,612**	**8,110,156**	**5,426,578**	**3,322,724**
LIABILITIES AND OWNERS EQUITY					
Current Liabilities (Short-Term)					
Short-term non-recourse financing	185,352	249,284	503,161	457,802	284,475
Loans and borrowings	682,901	254,296	206,567	502,740	203,220
Suppliers & other trade accounts payable	3,775,306	2,868,376	2,319,449	1,660,881	1,011,179
Current tax liabilities	292,829	183,148	159,095	135,322	92,455
Derivative financial instruments	96,007	65,861	4,687	47,494	30,843
Provisions for other liabilities	8,749	14,344	9,621	13,710	2,461
Total Current Liabilities	**5,041,144**	**3,635,309**	**3,202,580**	**2,817,949**	**1,624,633**
Non-Current Liabilities (Long-Term)					
LT Non-Recourse financing	2,748,015	1,883,443	1,186,002	796,068	386,365
Loans and borrowing	2,799,203	2,433,995	2,643,117	1,033,630	686,901
Provisions for other liabilites	135,471	184,649	125,415	58,434	47,702
Derivative financial instruments	213,101	141,040	9,769	88,389	-
Deferred taxes liabilities	246,725	123,432	139,180	86,372	49,327
Employee benefits	15,225	8,446	6,603	4,610	1,605
Total Non-Current Liabilities	**6,157,740**	**4,775,005**	**4,110,086**	**2,067,503**	**1,171,900**
Non cur liabilities held for sale (discontinued ops)	-	756,811	-	-	-
Total Liabilities	**11,198,884**	**9,167,125**	**7,312,666**	**4,885,452**	**2,796,533**
Equity					
Capital and Reserves	**802,702**	**406,789**	**616,988**	**390,105**	**395,096**
Share capital	22,617	22,617	22,617	22,617	22,617
Parent company reserves	292,286	228,534	237,389	226,677	226,622
Other reserves	(81,153)	2,100	24,361	(79,716)	(20,302)
Exchange differences	34,438	(250,114)	15,394	(7,278)	27,455
Retained earnings	***534,514***	***403,652***	***317,227***	***227,805***	***138,704***
Minority Interest	**368,274**	**220,698**	**180,502**	**151,021**	**131,095**
Total Equity	**1,170,976**	**627,487**	**797,490**	**541,126**	**526,191**
Total Liabilities & Shareholders Equity	**12,369,860**	**9,794,612**	**8,110,156**	**5,426,578**	**3,322,724**
A = L+E: Check	-	-	-	-	-

Table 3: Statement of Changes of Financial Position (5 years)

ABENGOA					
CONSOLIDATED STATEMENT OF CASH FLOW					
Years Ending: Dec 31, 2005 - 2009					
(in thousands of Euros (€))					
	2009	2008	2007	2006	2005 *
Net Operating Cash Flow (NOCF)	803,452	761,534	461,223	246,142	199,088
CF from Operating Activities	803,452	761,534	461,223	246,142	199,088
Net cash flow from inv activities	-1,805,453	-1,713,076	-1,164,378	-877,237	-455,691
CF from investing activities	-1,805,453	-1,713,076	-1,164,378	-877,237	-455,691
Net cash flow from fin activities	1,149,768	652,317	1,373,072	1,223,701	439,824
CF from financing activities	1,149,768	652,317	1,373,072	1,223,701	439,824
Total net cash flow	147,767	-299,225	669,917	592,606	183,221
Opening Cash	1,398,664	1,632,973	1,027,972	435,366	252,145
CLOSING CASH	1,546,431	1,333,748	1,697,889	1,027,972	435,366
Cash	*1,546,431*	*1,333,748*	*1,697,889*	*1,027,972*	*435,366*
Check	-	-	-	-	-

Table 4: Value Drivers

VALUE DRIVERS Years Ending: Dec 31, 2005 - 2009 (in thousands of Euros (€))	2009	2008	2007	2006
Operating Efficiency Ratio				
Average Days Receivables	147.22	133.84	165.12	102.77
Average Days Inventories	31.83	27.98	29.62	21.42
Average Days Payable	319.60	259.88	299.87	198.39
Cash Conversion Cycle	(140.55)	(98.06)	(105.12)	(74.19)
Fixed Asset Turnover	0.59	0.73	0.77	1.16
Return on Equity Components				
Return on Equity (ROE) 1	22.5%	23.3%	14.9%	22.8%
Tax Effect Ratio	0.78	2.85	0.91	0.90
Financial Cost Ratio	0.61	0.16	0.47	0.62
Operating Profit Margin	0.10	0.10	0.09	0.08
Capital Turnover	0.56	0.61	0.58	0.93
Financial Structure Ratio	8.26	8.62	6.86	5.39
Return on Equity (ROE) - full	22.5%	23.3%	14.9%	22.8%
Return on Invested Capital $(ROIC)_{BT}$	5.8%	5.9%	5.1%	7.6%
$ROIC_{AT}$	**4.5%**	**16.8%**	**4.6%**	**6.9%**
Financial Leverage Multiplier	3.89	3.94	2.94	2.99
Gross Margin	0.10	0.10	0.09	0.08
Times Interest Earned	1.64	1.28	1.37	1.76
Growth and Reinvestment				
Annual Sales Growth	10.0%	41.9%	-0.8%	32.3%
Annual retained earnings	130,862	86,425	89,422	89,101
Net Annual Earnings	170,307	140,403	120,405	100,340
Equity Retention Rate	76.8%	61.6%	74.3%	88.8%
Self-Sustainable Growth Rate	17.3%	14.3%	11.1%	20.2%
Effective Annual Tax Rate	22.3%	-185.1%	9.2%	9.9%

* **NOTE**: Liquidity ratios not included as WCR is negative - no external funding required

Table 5: Value Measures

ABENGOA BIOENERGY VALUE MEASURES YEARS 2005 - 2009 (in thousands of EUROS (€))						
Economic Value Added (EVA)		2009	2008	2007	2006	2005
COST OF CAPITAL						
1	After-Tax Cost of Debt					
	US Gov't Security (10Y)	0.04	0.02	0.04	0.05	0.04
	ESP Gov't Sec (10Y)	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*
	ESP Gov't debt over US premium	0.01	0.02	0.01	0.00	0.01
	Weighted Corp Cost of Debt (2009)	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*
	Implied Corp Cost of Debt Premium	0.01	0.01	0.01	0.01	0.00
	Cost of Debt	0.06	0.06	0.06	0.06	0.06
	Corporate Tax Rate	0.22	(1.85)	0.09	0.10	0.29
	AT Cost of Debt	**4.4%**	**5.6%**	**5.1%**	**5.1%**	**4.0%**
2	Cost of Equity					
	RFR (ESP Gov't Sec 10Y)	0.05	0.05	0.05	0.05	0.05
	US Base Market Risk (ex-RFR)	*0.06*	*0.06*	*0.06*	*0.06*	*0.06*
	Spanish Market Risk Premium	*0.01*	*0.02*	*0.01*	*0.00*	*0.01*
	Spanish Aggregate Market Risk (ex-RFR)	0.07	0.08	0.07	0.06	0.07
	Spanish Market Risk	0.11	0.13	0.12	0.11	0.12
	Beta ABG (against IBEX)	1.42	1.42	1.42	1.42	1.42
	Cost of Equity	**16.0%**	**18.7%**	**16.9%**	**16.0%**	**17.2%**
3	Weights D/E					
	Book Val LT Debt (Cap Employed - Equity)	7,025,993	6,035,396	4,819,814	3,028,045	1,659,595
	Book Val Debt	**7,025,993**	**6,035,396**	**4,819,814**	**3,028,045**	**1,659,595**
	Share price (ABG) (AVE Annual)	15.97	17.24	28.25	20.84	10.25
	Shares outstanding ('000s)	90,470	90,470	90,470	90,470	90,470
	Market Value Equity	**1,445,032**	**1,559,929**	**2,556,004**	**1,885,546**	**926,941**
	Debt + Equity	**8,471,025**	**7,595,325**	**7,375,818**	**4,913,591**	**2,586,536**
	Debt Proportion	83%	79%	65%	62%	64%
	Equity Proportion	17%	21%	35%	38%	36%
4	WACC					
	AT Cost of Debt	0.044	0.056	0.051	0.051	0.040
	Debt Proportion	83%	79%	65%	62%	64%
	Cost of Equity	0.160	0.187	0.169	0.160	0.172
	Equity Proportion	17%	21%	35%	38%	36%
	WACC	**6.37%**	**8.32%**	**9.22%**	**9.29%**	**8.73%**
ROIC & IC						
	NOPAT $_{\text{END PERIOD}}$	**140,403**	**120,405**	**100,340**	**66,004**	-
	Invested Capital $_{\text{BEGIN PERIOD}}$	6,662,883	5,617,304	3,569,171	2,185,786	-
	ROIC $_{AT}$	**4.51%**	**16.85%**	**4.62%**	**6.86%**	-
	Return Spread	**-1.86%**	**8.53%**	**-4.61%**	**-2.43%**	-
Economic Value Added (EVA)		2009	2008	2007	2006	2005
	EVA	**(123,692)**	**479,139**	**(164,408)**	**(53,028)**	-
Market Value Added (MVA)		2009	2008	2007	2006	2005
	Market Value Added (MVA) per year	**274,056**	**932,442**	**1,758,514**	**1,344,420**	-
	Annual Delta MVA	**-240%**	**-89%**	**24%**	-	-

Table 6: Corp Governance – Abengoa S.A.

I. COMPOSITION ABENGOA BOARD OF DIRECTORS *as per Abengoa Annual Report (Abengoa CC, 2009)*

NAME	ROLE	STATUS	COMMITTEE MEMBERSHIP	% Shares
Mr. Felipe Benjumea Llorente	Executive Chairman	Internal	Strategy Committee	**0.89% ***
Prof. José B. Terceiro (Rep. Aplicaciones Digitales S.L. ~)	Executive Vice-Chairman. Lead Director	Internal	Appointments and Remuneration Committee: Director / Strategy Committee: Executive Vice-Chairman / Audit Committee: Director	1.023% ~
Mr. José Joaquín Abaurre Llorente	Director	Dominion; External		**0.0021% ***
Mr. José Luis Aya Abaurre	Director	Dominion; External	**Appointments & Remuneration Committee: Dir. / Audit Committee: Dir.**	0.061%
Ms. Mª Teresa Benjumea Llorente	Director	Dominion; External		**0.013% ***
Mr. Javier Benjumea Llorente	Director	Dominion; External		**0.004% ***
Prof. José Borrell Fontelles	Vocal	Independent; External		0.0011%
Prof. Mercedes Gracia Díez	Director	Independent; External		0.0005%
Mr. Miguel Martín Fernández	Director	Independent; External		0.009%
Prof. Carlos Sebastián Gascón	Director	Independent; External	Appointments and Remuneration Committee: Chairman	0.028%
Mr. Ignacio Solís Guardiola	Director	Dominion; External		0.028%
Mr. Fernando Solís Martínez-Campos	Director	Dominion; External		0.092%
Mr. Carlos Sundheim Losada	Director	Dominion; External		0.051%
Mrs. Alicia Velarde Valiente	Director	Independent; External	Appointments and Remuneration Committee: Director / Audit Committee: Director	0.0004%
Prof. Daniel Villalba Vilá	Director	Independent; External	Audit Committee: Chairman	0.015%
Mr. Miguel Á. Jiménez-Velasco Mazarío	Secretary of the Board	Internal; Secretary of the Board	Strategy Committee: General Secretary / Audit Committee: Secretary	-

** Llorente family, direct descendants of founder, own combined 0.91% direct shares of Abengoa*

COMMITTEES: Appointments and Remuneration, Audit, and Strategy (Strategy Committee membership specified below)

Chief Executive Officer	Felipe Benjumea Llorente *
Executive Vice-Chairman	José B. Terceiro *
Director of Strategy and Corporate Development	Javier Camacho Donézar
Bioenergy Business Group President	Javier Salgado Leirado
Environmental Services Business Group President	Javier Molina Montes
Information Technologies Business Group President	Manuel Sánchez Ortega
Engineering & Industrial Construction & Latin America Bus Group President	Alfonso González Domínguez
Solar Business Group President	Santiago Seage Medela
Technical General Secretary	José Domínguez Abascal
Human Resources Director	Álvaro Polo Guerrero
Direct of Organization, Quality and Budgets	Luis Fernández Mateo
Financial Director	Amando Sánchez Falcón
Director of Investor Relations	Juan Carlos Jiménez Lora
Assistant CEO. International Institutional Relations	Germán Bejarano García
General Secretary for Sustainability	Fernando Martínez Salcedo
General Secretary	M.A. Jiménez-Velasco Mazarío *

** Board of Directors Officer*

II. COMPOSITION ABENGOA BIOENERGY BOD: *as per Abengoa Bioenergy Annual Report 2009 (Abengoa Bioenergy CC, 2009)*

Current Board of Directors constituted in July 2007, is formed by eleven members, ten Board Members, and one Non-Board Member Secretary. The current board members are independent and do not hold any executive post in the Abengoa Bioenergy companies, with the exception of the Chairman, Javier Salgado Leirado, who serves as CEO. The Board Committees are formed by three Non-executive Board Members designated by the Board of Directors, for a maximum period of four years, renewable for maximum periods of the same duration. 18 subsidiary firms report-up to Abengoa Bionergía S.A. Corporate. Mr. Leirado, Chairman of the Board of Abengoa Bioenergy, acts as President and/or CEO of all member firms.

COMITTEES: Appointments and Remuneration Committee, Audit Committee, New Technologies Committee

Table 7: Working Capital Requirements

ABENGOA
WORKING CAPITAL REQUIREMENTS (WCR)
Years Ending: Dec 31, 2005 - 2009
(in thousands of Euros (€))

	WCR Direct Method *	2009	2008	2007	2006	2005	NOTES
+	Operating (Current) Assets (+)	2,415,361	1,884,949	1,831,298	1,322,063	780,453	
	Accounts Receivable	2,002,169	1,343,305	1,420,860	982,053	525,595	** Central AR item*
	Investment accounts receivable	413,192	541,644	410,438	340,010	245,494	** Treated as AR*
	Investment deferred tax assets	-	-	-	-	9,364	** Treated as prepaid expense*
+	Inventories (+)	345,589	316,093	242,451	150,737	137,806	
-	Operating (Current) Liabilities (-)	4,172,891	3,131,729	2,492,852	1,857,407	1,136,938	
	Suppliers & other trade accounts payable	3,775,306	2,868,376	2,319,449	1,660,881	1,011,179	** Central AP item*
	Current tax liabilities	292,829	183,148	159,095	135,322	92,455	** Treated as accrued expense*
	Derivative financial instruments	96,007	65,861	4,687	47,494	30,843	** Treated as accrued expense*
	Provisions for other liabilities	8,749	14,344	9,621	13,710	2,461	** Treated as AP*
WCR Direct Method		-1,411,941	-930,687	-419,103	-384,607	-218,679	
	Year-on-Year Trend	*34%*	*55%*	*8%*	*43%*	-	

Table 8: Biofuel Industry Overview

Picture from Abengoa Bioenergy Annual Report 2008 (Abengoa CC, 2008)

Biofuel, a rapidly evolving industry, sits at the nexus of change: climate change, growing enthusiasm for sustainability, government policies, the quest for alternative energy sources, expansion in developing economies, and the emergence of new technologies, especially bio-industrial processes and genetic engineering. Biofuel is a broad term used to describe combustible fuel produced via the conversion of (or via the agency of) biomass / organic material. Depending on the particular biomass source and conversion processes applied, resulting derived fuels include ethanol, diesel, bio-oils, bioethers, biogas, syngas, biohydrogen, and solid biofuels (Demirbas, 2009). First generation biofuels derive from processed sugar, starch, vegetable oils, or animal fats, typically extracted from feedstock materials such as sugar cane, maize (corn), wheat, and various seeds.

The global growth of biofuel production has controversially caused the prices of many associated otherwise-edible commodities to soar to parity with oil, resulting in a political backlash based on ethical grounds (Jarrett, 2009). Advancements in process science and intermediaries have led to second generation biofuels, a still developing approach which involves converting non-edible feedstock to biofuel (cellulosic biomass principally). Third generation biofuels, though still in the early development stages, results from advanced genetically engineered organisms producing fuel directly as an output of biotic synthesis (Economist Staff, 2010).

The larger challenge for this nascent industry is that oil is 'baked-in' or systematized into the globalized economy to such a degree that massive systemic supply chain engineering is needed to make biofuel economically feasible. It is worthy to observe that the strongest national biofuel industry is in Brazil, having flourished due to the ability of the Brazilian government to push through systemic, vertically integrated supply chain solutions. Absent similar strong, centralized subsidy and planning from Spain and/or the EU generally, another strategy has been pursued by Abengoa: that of distributing biofuel risks by operating across allied but separate industries within a horizontally diversified conglomerate and diversifying globally in the interests of cost, regional economic, and subsidy arbitrage.

Table 9: Abengoa Firm Overview

Abengoa S.A. is a Spanish global engineering conglomerate with a focus on sustainability in infrastructure, environment, and energy projects. Biofuel, the focus of this analysis, accounts for a strategic and growing 25% of the business by gross sales, with complementary units occupying the remainder: solar, IT, environmental services, and industrial engineering / construction. The following examines how Abengoa approaches financial value management, particularly its strategy of maintaining distinct horizontal business-lines. As well, internationalization is observed as a method to optimize subsidy, tax savings, commodity prices, and other regional advantages. While the firm appears well-managed in top-line terms, consistent underlying EVA value destruction and unstable core industries make it a somewhat risky, uncertain firm. However, this is moderated by strong financial management, tax and regulatory support, and strategic investments in new technology for future growth.

Abengoa was founded in 1941 by an aristocrat linked to the Franco regime and provided much-needed post-war national electrical infrastructure development. The company flourished and expanded into construction by the 1960's. Felipe Benjumea Llorente, the current chairman and son the founder, took the reins in the early 1990's. Under his leadership the firm horizontally diversified, creating, amongst others, Abengoa Bioenergy, which built its first landmark biofuel plant by 2000. The Benjumea family is firmly part of the Spanish 'establishment' (Leal, 2008), being closely linked by ownership and management to a number of powerful Spanish companies. Viewing Abengoa within the context of the clannish Spanish business elite, tax savings, a key concern of Spain's wealth families, is realized via international diversification and a close attachment to sustainability as a generator of subsidy and tax-rebates. A critical interpretation of value management at Abengoa must understand the context of the long-term interests of dynastic wealth preservation and growth from the perspective of one of Spain's most powerful families.

At present, Abengoa Bioenergy operates 4 biofuel plants in Europe and 4 in the US. Recently the company expanded operations to Brazil (Tribe, 2007) and announced plans to deploy the first commercial-scale hybrid cellulosic bioethanol facility, slated to go online by 2013 in the US (Cartledge, 2010). The firm categorizes core activities into five areas: raw material procurement, bioethanol origination, production, commodity trading, and new technologies. For a general overview of the biofuel industry, see Table 8. The relative youth of the biofuel / bioenergy sector makes Abengoa both an interesting and challenging firm to examine. Abengoa, in not being exclusively focused in the biofuel industry, diversifies risk in horizontal, synergistic lines. Of interest are the ways in which management is adopting and shifting strategy to drive value, even as the sands of government policy, cost economics, and technology factors in the industry shift. Companies purely active in the biofuel sector depend upon a subsidy factor, and, even then, are not profitable yet, though improvements in technology are narrowing the gap.

Sustained grown and earnings

Evolution 1999 - 2009 (Consolidated Data)	Four Business Units		Engineering Company	
	2009		1999	
Business Units	Sales %	Gross Cash Flows (1) %	Sales %	Gross Cash Flows (1) %
Solar	2,8	8,0	0,0	0,0
Bioenergy	24,4	20,5	0,0	0,0
Environmental Services	17,4	13,0	8,5	5,5
Information Tecnologies	18,3	18,9	35,4	38,1
Industrial Engineering and Construction	37,1	39,6	56,1	56,4
Consolidated Total	100.0	100.0	100.0	100.0
Geography	%	%	%	%
US	13,9	14,7	--	--
Latin America	28,4	29,7	40,0	28,8
Europe (excluding Spain)	15,0	15,5	4,9	1,7
Africa	7,9	4,4	1,4	2,1
Asia	3,4	1,1	0,5	0,2
Oceanía	0,1	0,1	--	--
Spain	31,3	34,5	53,2	67,2
Consolidated Total	100.0	100.0	100.0	100.0
Types of Activities	%	%	%	%
Concession and recurrent businesses	15,0	36,9	5,8	14,5
Businesses involving commodities risk	29,8	22,6	--	--
Rest of engineering businesses	55,2	40,5	94,2	85,5
Consolidated Total	100.0	100.0	100.0	100.0

(1) Gross Cash Flows: Earnings before interest, tax, depreciation and amortization, adjusted by the works flows done for own fixed assets

Table from Abengoa Bioenergy Annual Report 2009 (Abengoa CC, 2009)

Table 10: Abengoa Value Drivers (Reuters)

Valuation Ratios	Company	Industry	Sector	S&P 500
P/E Ratio (TTM)	--	11.25	19.30	16.90
P/E High - Last 5 Yrs.	--	0.09	0.36	24.66
P/E Low - Last 5 Yrs.	--	0.02	0.09	6.18
Beta	1.47	1.41	1.14	1.28
Price to Sales (TTM)	--	0.42	1.49	2.07
Price to Book (MRQ)	1.38	0.58	1.14	2.94
Price to Tangible Book (MRQ)	--	0.72	1.31	15.33
Price to Cash Flow (TTM)	--	5.90	19.17	18.09
Price to Free Cash Flow (TTM)	--	3.74	13.94	24.70
% Owned Institutions	--	--	--	--
Dividends				
Dividend Yield	0.98	1.08	1.29	1.70
Dividend Yield - 5 Year Avg.	0.74	1.15	1.17	2.57
Dividend 5 Year Growth Rate	1.91	11.02	8.66	-7.52
Payout Ratio(TTM)	--	6.90	11.65	36.04
Growth Rates				
Sales - 5 Yr. Growth Rate	25.16	3.49	7.67	10.03
EPS - 5 Yr. Growth Rate	26.59	17.46	9.66	7.29
Capital Spending - 5 Yr. Growth Rate	58.96	15.57	13.39	7.87
Financial Strength				
Quick Ratio (MRQ)	0.94	0.47	1.12	0.81
Current Ratio (MRQ)	1.02	0.62	1.38	0.98
LT Debt to Equity (MRQ)	585.90	40.39	54.03	127.35
Total Debt to Equity (MRQ)	645.73	57.03	74.51	183.85
Interest Coverage (TTM)	--	0.06	0.39	27.97
Profitability Ratios				
Gross Margin - 5 Yr. Avg.	29.95	16.77	24.89	28.86
EBITD - 5 Yr. Avg	10.43	7.22	13.37	18.34
Operating Margin - 5 Yr. Avg.	7.78	4.71	9.09	16.63
Pre-Tax Margin - 5 Yr. Avg.	3.72	4.90	9.14	16.18
Net Profit Margin - 5 Yr. Avg.	3.69	3.06	6.15	11.88
Effective Tax Rate - 5 Yr. Avg.	0.80	45.16	117.89	25.65
Efficiency				
Receivable Turnover (TTM)	--	1.54	1.58	8.74
Inventory Turnover (TTM)	--	1.83	2.16	6.67
Asset Turnover (TTM)	--	0.30	0.24	0.54
Management Effectiveness				
Return on Assets - 5 Yr. Avg.	1.96	2.81	4.16	5.60
Return on Investment - 5 Yr. Avg.	3.55	5.52	7.15	7.20

** From Reuters (Reuters Financials, 2010)*