PART IV – VALUATIONS FOR ACQUISITIONS

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Introduction

Businesses, like trees, start, flourish and eventually wither or are cut down; in some fields, the life cycle is short. These can be compared to automobiles or to software programs, which need a new enhanced model every three or so years. Others last much longer, and bring to mind the world's oldest manufacturing concern Fonderia Pontiffica Marinelli of Agnone, Italy that, run by the same family, has been making bells for over 1,000 years. Its products ring out not only in Italy, but here in Beijing, New York, Jerusalem, and South Korea, still using their original lost wax technique created in China; needless to say, they are an exception. So are the California redwoods, some of which sprouted in the first millennium; alas, only 0.0001% of all the trees in all the forests in the world are sequoias.

The fact that a business eventually runs its course does not mean that the entity itself cannot continue for a long time. For instance, Kongo Gremi has been building shrines in Japan since 578, run by the same family for 1,429 years. In my country, Canada, the 'Governor and Company of Adventurers of England Trading into Hudson's Bay' - a title that has since been wisely shortened to the Hudson's Bay Company - in 2006 celebrated its 336th birthday by going private. It started in the fur trade, diversified into: general stores, liquor, timber, land dealing, oil & gas, even mining. Who knows what they'll be doing in a hundred years.

Well managed companies can and should aim at outliving any individual business; what sets them apart is their ability to create new activities either internally or by acquisitions. A good example is General Electric, one of the original twelve leading companies when the Dow Jones Industrial Average was first published in May 1896. It is the only one still included in the Index, and, measured by market capitalization, remains one of the largest companies in the world. It is not possible to determine how many products or activities it has added or disposed of during more than a century of existence.

Three Sector Framework

Our view, which is based on experience and work by McKinsey & Company the international consulting firm, is that every successful entity will normally contain examples of all of the following business sectors, each representing a different phase of its life cycle:

- Existing Operations
- Emerging Activities
- Future Opportunities

Each Reporting Unit, established by GAAP, may contain examples of any of those sectors.

<u>Existing Operations</u>: Often quite mature, these form the heart of most Reporting Units; they frequently account for nearly all, sometimes more than all, of the reported profits and Cash Flows of the total entity, as the other sectors generally lose money. Extending and defending Existing Operations is critical to a firm's short-term performance; the cash they generate and the skills they nurture tend to supply many of the resources needed for the other sectors.

<u>Emerging Activities</u>: Normally these are the means of expansion of a Reporting Unit; often capable of transforming it, they require research, investment, vision - and a good dollop of optimism. Some may become instantly profitable, but usually, earnings take a while. They are active businesses, with products, employees, customers and revenues, and their objectives are to complement and eventually become part of, or perhaps even replace, the Existing Operations.

<u>Future Opportunities</u>: These represent options on tomorrow's businesses, but must be real activities rather than merely ideas.

Examples include research projects, products in test markets, prototypes, alliances, anything that marks the first steps towards an actual business, even though there may be no profits for a considerable period. However, if market situations or perceptions change suddenly, a large portion of a Reporting Unit's Fair Value, relating to such Future Opportunities, can vanish.

Impact on Strategies

To ensure a long term future, every business should supplement its Existing Operations with Emerging Activities and Future Opportunities, either internally generated or through acquisitions. Some will succeed, others may never achieve their goals; failures may be due to internal reasons, because of shifts in industry trends or changes in the economy. It is therefore desirable for an entity to have more than one underway at any time as parts of several Reporting Units.

Even when fully supported by management and apparently promising, Emerging Activities and Future Opportunities may still falter; for that reason, there must be an understanding that, after a

suitable period, they will be shut down rather than continue as a "living dead" to drain cash from other undertakings. That timing will vary by industry, purpose and the depth of management's pockets - not to forget someone's stubborn streak.

Synergies

In planning a Business Combination and determining how much it would be prepared to pay for it, an Acquirer frequently anticipates considerable synergies and strategic advantages from the addition of the Target's business; however, those benefits often fail to materialize to the extent envisaged. Overpaying for expected synergies is a major reason for mergers' lack of success. The key to a profitable transaction is to "pay for what you get, not for what you think you get" and, in order to achieve a smooth transition, to make certain that both sets of stockholders are satisfied that their participation in the anticipated gains is fair.

Synergies are represented by the net incremental discretionary Cash Flows directly arising from the transaction. They are expected to generate much of the hoped-for increase in the value of the combined enterprise over the sum of those of its predecessors. In addition to higher discretionary cash flows, benefits arising from a merger may: reduce risks associated with the Existing Operations of either entity; have a positive impact on expanding Emerging Activities and aid in creating Future Opportunities.

In establishing the Fair Value of a Reporting Unit, FASB requires taking into account the benefits of the synergies that would be reasonably anticipated by a market place participant; this means that Fair Value is at the strategic level, and is normally higher than the generally accepted Market or Fair Market Values.

When negotiating the purchase price, the Acquirer is likely to accept "what it gets" as a floor; this is the Fair Market Value of the Target as it stands, commonly known as its Intrinsic Value. The ceiling is "what it thinks it gets", represented by the Investment Value: This is specific to a particular buyer and takes into consideration planned changes, anticipated expansions, expected Future Opportunities and the modified risk profile of the combined entity. The purchase price normally falls between those two figures.

Allocation of Benefits

In any merger or acquisition, benefits resulting from the transaction should be split appropriately between both sets of shareholders.

The shareholders of the Target receive the greater portion when:

a) During due-diligence its existing prospects appear better than those of the Acquirer and so increase the Intrinsic Value; however, this may turn out to be an illusion.

- b) Working together, in a friendly deal, both managements are able to identify more benefits than the Acquirer was able to on its own; this leads to a higher Investment Value. Such rosy forecasts sometimes result in imaginary synergies, discount rates that do not reflect all the risks, and exaggerated estimates of the Acquirer's abilities, leading to overpayment.
- c) A "White Knight" (a friendly buyer found by the Target's management) appears which results in competitive bidding.

To ensure that the shareholders of the Acquirer receive a reasonable portion of the synergies and benefits, a maximum price (normally Investment Value) must be established for the Target purchase; this will reflect:

- Anticipated benefits
- Costs associated with them
- When they are expected
- Likelihood of achieving them
- Risks associated with their realization.

FASB's definition of Fair Value was discussed in Part III, together with its relationship to Fair Market Value. It assumes that the Acquirer is able to obtain generic synergies available to all market place participants; those actually obtained obviously, will vary from case to case. If they are not realized and the Fair Value of the net assets turns out to be less than the amount paid, a Goodwill Impairment Loss is likely.

Sources of Synergies

Synergies fall into two broad categories: the first is increased revenues, the second cost savings; both can affect the amount paid for the Target.

Factors That May Increase Revenues

- Cross-selling of complementary items
- Integration of product lines
- Diversification of customers
- Better use of sales channels and marketing programs
- Higher selling prices.

Factors That May Reduce Costs

- Accelerated entry to a new area of (the Target's) business
- Improved economies of scale
- Increased purchasing power and volume discounts
- Lower cost of capital
- Access to better technology

- Secure source of supplies
- Reduction of duplicate administrative activities
- Reduced capital expenditures
- Improved use of working capital
- Better capacity utilization and hence productivity.

Extra Expenses

Integrating an Acquirer and a Target normally leads to extra expenses, which hopefully are onetime occurrences and often not subjected to the same level of analysis applied to envisaged revenue increases and cost reductions. They frequently exceed the budget, and sometimes the Acquirer's wildest expectations. In accounting for Business Combinations under SFAS 141, this characteristic must be taken into account.

Potential areas of extra costs are set out below; some are one-time expenses, others will be spread over a number of periods:

- Temporarily double management
- Severance pay
- Combining sales forces
- Dealing with overlapping customer relationships
- Transferring personnel
- Monitoring the integration
- Terminating leases
- Additional legal activities
- Unforeseen actions of competitors
- Miscellaneous contingencies
- Assimilating the different business cultures
- Moving costs
- Integration of computer and communication systems

Quantification

Synergies are difficult to value directly and are therefore often quantified by the difference between the Investment and Intrinsic Values of the Target (see above). Both are normally established separately for Existing Operations, Emerging Activities and Future Opportunities.

The Intrinsic Value of Existing Operations is commonly obtained by capitalizing current earnings. Emerging Activities are almost always valued by discounting projected cash flows, while Future Opportunities will usually be given little weight until Target's management provides more detailed information. When possible, a Market Approach, based on Guidelines, should be used as confirmation.

For Investment Value, FASB recommends a Discounted Cash Flows method however, the guidance does not differentiate between the three sectors: Existing Operations, Emerging Activities and Future Opportunities. While their suggestion is satisfactory for the first two, methods that take into account the ability to adjust to uncertainties are preferable for the third; an example is the Real Option method. This treats many business decisions as analogies to buying, selling or exercising financial options. Synergies and the related extra expenses are relatively easy to realistically reflect in DCF value which are considered the most appropriate, since they specifically consider management's forecasts for:

- Amounts of the perceived benefits
- Costs associated with them
- Timing of their realization.

The probable risks linked to the realization of the anticipated benefits should be considered when choosing the Discount Rate, which would likely be lower for Investment than for Intrinsic Value.

When it is difficult to establish the timing of the perceived benefits or the chances of obtaining them, the amounts and related costs should be estimated for various scenarios, normally those are:

- Success achieves expected post-acquisition synergies
- Survival achieves half of the expected synergies
- Failure synergies are not realized

Separate scenarios may be needed for Existing Operations and Emerging Activities. In each case they are then weighted on the basis of their probabilities. As the risks associated with the realization of the benefits are reflected in the probabilities, all three scenarios may apply the same Discount Rate.

Strategic Advantages

Certain benefits from an acquisition may not have an identifiable impact on the Cash Flows and are therefore generally treated as strategic advantages rather than synergies. In our view, they are better covered by reductions of the specific risks taken into account in the Discount Rate; examples are:

- Diminished competition
- Increased market share
- Incremental growth opportunities
- Lower risks.

Timing of Realizations

One of the most common errors in an acquisition is underestimating the time it will take to implement the changes necessary to realize the expected synergies. This is often related to the difficulty of forecasting the time and effort involved in helping the Target to integrate its culture

with that of the Acquirer. For example it is virtually impossible to increase revenue, if the marketing and distribution arms of the respective firms have not coordinated their efforts; often this is because one system is centralized or based on product lines while the other is geographically organized.

Non-Core Activities

In nearly every acquisition, the Target is carrying on some activities that have a limited "fit" with the major functions of the combined enterprise. In the past, many businesses attempted to reduce risks and accelerate growth by diversifying into product and service areas not directly related to their "core" business. This often led to the value of the entity being less than that of the total of its components; this situation is sometimes described as a conglomerate discount.

In assessing the synergies of an acquisition, it is essential to determine which operations or assets are non-core and decide early when and at what price they could be sold. When those items are significant the fundamental methodology is to separate the Target into its components and value each individually. While comparable transactions can provide some benchmarks, it is important to remember that no two companies are alike in regard to risks or potential cash flows; careful analyses will ensure that the comparable transactions are - in fact - comparable.

A major reason for a conglomerate discount is lack of information at the Reporting Unit level; this creates risks, which always result in lower values, no matter what the reason. Items which are usually difficult to determine for the Acquirer are transaction and tax costs associated with breaking up the entity. Once the merger has been completed, the search for buyers for the "orphans" may take longer and be more costly than anticipated, as their availability becomes known on the street; the Acquirer must also consider the possibility of being left with unwanted orphans for which no buyers can be found. There can only be speculation about the eventual form of divestiture, i.e. asset or stock sale, spin-off, etc.

Implicit Assets

In a November 2000 article in Strategic Finance magazine, Joel Litman of Diamond Technology Partners, a Chicago strategy consulting firm, pointed out that most entities have implicit (he called them genuine) assets that are not shown on any Financial Statement except as part of Goodwill; the reason is that they do not qualify as Intangible Assets. Some examples are:

Attention

- "Eyeballs"
- Traffic: foot, vehicle, other
- Top of mind

Brand Equity

- Reputation
- Awareness

Financing

- Access to equity
- Access to cheap debt

Intellectual Capital

- In-house technical expertise
- Specialized market experience
- Research and unique data or information

Management

- Special characteristics of the Board and management such as industry contacts
- Reputation
- Leadership
- Teamwork
- "Deep bench"

Processes

- Core competencies
- Economies of scale or scope

Technology

• Hardware infrastructure

Relationships

- Unique partners and alliances
- Key vendors
- Unique competitor relationships
- Government relationships
- Ownership links
- Special employee/union relationships

Workforce

- Access to personnel for peak and trough workflow management
- Good corporate culture
- Employee knowledge
- Strong recruiting capabilities

Management should be questioned concerning such items and their values should be reconciled, if possible, with the amount determined for Goodwill.

Intangible Liabilities

In addition to Implicit Assets, many entities have liabilities which may be considered intangible, as they do not currently exist but are likely to in the future and therefore are without physical manifestation. It is essential to identify and assess the importance of such items, especially as many will be contingent on specific future events that may never materialize; examples include:

- Acknowledged contingent liabilities
- Pension and benefit plan obligations
- Environmental liabilities,
- Potential income taxes

Environmental Liabilities

When considering acquisitions of real estate or manufacturing plants, great care must be taken to ascertain that the business is "clean". This is particularly important when toxic materials have been handled on the site, be it by present or previous owners. The Acquirer must assess the probability, timing and amounts of costs which may be incurred in order to correct any environmental problems, either past, current or future, and to ensure compliance with all relevant legislation and regulations on an ongoing basis.

There have been situations when the value of a business was virtually erased as a result of the costs of cleaning up the location where it operated. While large profits had previously been earned from the plant, the Acquirer inherited the liability and became responsible for cleaning up the contamination from an owner well back in the chain of title. In most developed countries legislature relating to environmental liabilities is far reaching and to a great extent seems to be based on the "deep pocket" theory, whereby the one with the most resources has to pay for cleanup and reclamation; the situation varies among nations.

In the US and Europe auditors are not required to express an opinion on the adequacy of an entity's environmental practices or compliance with pertinent laws and regulations. However, they must obtain sufficient evidence to provide reasonable assurance that any items on the Financial Statements that could be affected by environmental considerations are fairly presented. Although

this gives no assurance that the costs of a cleanup have been fully taken into account, it should be the starting point for an assessment of this type of exposure. In certain cases, the expertise of a consulting engineer or other specialist may be necessary.

Contingent Income Taxes

Income taxes must always be a major consideration in an acquisition, especially with respect to potential adjustments to periods that can be re-examined by taxing authorities or for the ability to utilize past losses. This is especially significant when purchasing shares of a Target, as the Acquirer will inherit the tax bases of the various underlying assets. This may result in potential tax liabilities, which will materialize if and when the related assets are sold. It is therefore important to estimate the timing and proceeds of any planned dispositions, especially if they are expected relatively soon. The present values of potential income taxes should be treated as a potential liability at the time of the acquisition and be reflected in the amount paid.

Acquisition of Lamb Industries

To demonstrate the pre-transaction valuation process, we have created, as a case study, the acquisition of Lamb Industries (Pte) Limited of Singapore by Craig Enterprises Inc. of Toronto, Canada, on August 17, 2001 (the "Acquisition Date"); this is fifteen days before Craig's year end (August 31) and six weeks after SFAS 141 and 142 became effective on July 1, 2001.

Both entities were suppliers to the food processing industry. Lamb had been formed in 1986 to supply specialized equipment to meat processors and in 2001 had expanded into the dairy field. Although selling in many countries overall, it was comparatively small, with approximately a 3% market share worldwide. Craig was a larger manufacturer of solutions for the meat segment, whose common shares traded on NASDAQ. All figures are in United States dollars, Craig's functional currency.

Operating Record

To determine a Target's Intrinsic Value as well as its Investment Value to a particular Acquirer, the valuator normally looks at its five-year record. Between the fiscal years ended July 31, 1998 and 2001, Lamb's revenues declined by 20% due to the loss of a major customer. In fiscal 2001, the year that ended just before the transaction, revenue improved to the 1998 level, following the introduction of a new product for dairies. In the most recent year, 2001, 33.2% of sales were in North America, 26.7% in Europe and 40.1% in Asia. The results for the last five fiscal years are as follows:

						\$'000
Year to July 31		1997	1998	1999	2000	2001
Revenues		24,326	21,708	19,840	19,468	21,774
Growth		n.a	-10.8%	-8.6%	-1.9%	11.8%
Index		100	89	82	80	90
Gross Profit		11,130	10,766	10,128	10,572	11,530
Expenses						
Distribution		1,792	1,524	1,454	1,596	1,616
R&D		2,036	1,854	1,450	1,628	1,938
Administration		5,872	6,544	5,116	5,818	5,926
Interest-net		228	146	78	4	12
Total		9,928	10,068	8,098	9,046	9,492
Pre-Tax Profit		1,202	698	2,030	1,526	2,038
Income Tax	40%	(481)	(279)	(812)	(610)	(815)
Net Income		721	419	1,218	916	1,223
Margins						
Gross		45.8%	49.6%	51.0%	54.3%	53.0%
Distribution		7.4%	7.0%	7.3%	8.2%	7.4%
R&D		8.4%	8.5%	7.3%	8.4%	8.9%
Administration		24.1%	30.1%	25.8%	29.9%	27.2%
Interest-net		0.9%	0.7%	0.4%	0.0%	0.1%
Pre-Tax Profit		4.9%	3.2%	10.2%	7.8%	9.4%

After 1998, as new and enhanced products were introduced, gross margins improved. Over the five year period, management reduced R&D expenses in line with declining sales to ensure that profits increased. As a result, during that time, Lamb was able to pay \$1,492,000 in dividends, 40% of the \$3,750,000 profits.

Balance Sheet

At July 31, 2001, its last independent year end, Lamb's Balance Sheet was:

	\$'000
Assets	
Cash	739
Receivables	2,831
Inventories	1,936
Total	5,506
Equipment-net	205
Total	5,711
Liabilities	
Bank	121
Payables & Accruals	1,726
Current portion Term Loan	79
Total	1,926
Term Loan	316
Total	2,242
Equity	
Share Capital	199
Retained Earnings	3,270
Total Stockholders' Equity	3,469
Total Liabilities & Stockholders' Equity	5,711

Lamb's financial position was strong. The current ratio was 2.85 times; the debt was small, financing only 9.0% of assets and working capital was satisfactory at \$3,580,000, representing 16.4% of revenues.

Lamb's Intrinsic Value

Before making its offer, Craig had to first establish Lamb's Intrinsic Value by the same process as that used for any Fair Market Value determination.

Sustainable Net Income

Craig's initial investigation in the spring of 2002 indicated that Lamb had one Emerging Activity: it was close to launching a new product, LAMBMASTER, on which it had spent over \$1,300,000 during the previous two years; there were no identified Future Opportunities.

The first step in obtaining the Intrinsic Value of the Existing Operations was to add back the new product development costs, allocated 35% to fiscal 2000 and 65% to 2001, to determine

normalized pre-tax profits. The second step, shown below, was to use their weighted average of \$1,220,000 as Sustainable Net Income; this is close to the actual 2002 results of \$1,200,000.

	Reported	Normalized			
	Pre-tax	R&D	Pre-tax		
Year to July 31	Profit	Adjustment	Profit	Weight	Product
1997	1,202	-	1,202	1	1,202
1998	700	-	700	2	1,400
1999	2,030	-	2,030	3	6,090
2000	1,526	455	1,981	4	7,924
2001	2,030	845	2,875	5	14,375
Total				<u>15</u>	30,991
Weighted Average I	Pre-tax Profit	t			2,066
Income Tax					(846)
Sustainable Net Inco	ome				1,220

Capitalization Rates

Craig used a buildup method to establish the Capitalized Rates, starting with the ten-year US treasury board yield. This was chosen rather than a Singapore interest rate as the financing was to be in US dollars from an American bank. The figure for the equity and size premium is obtained from "Stocks, Bonds, Bills and Inflation Valuation Edition" published by Ibbotson Associates, a valuation research firm from Chicago. The specific risk related to Lamb's location and the importance of two particular individuals in management. The result of this third step is to obtain Capitalization Rates of between 17.3% and 21%.

	High	Low
	%	%
Ten-Year Treasury Bond Yield	5.1	5.1
Equity & Size Premium	16.1	16.1
Specific Risks	2.0	2.0
Discount Rate	23.2	23.2
Expected Growth	(5.9)	(2.2)
Capitalization Rate	17.3	21.0
Price Earnings Ratio (Rounded)	5.8X	4.8X

The growth rate chosen for the "high" Capitalization Rate was half of that (11.8% in sales) achieved by Lamb in 2002. Based on anticipated synergies, Craig expected to exceed this each year. The "low" growth rate reflected anticipated inflation in Lamb's various markets over the next five years.

Intrinsic Value Conclusion

Based on the fact that Lamb had only Existing Operations and LAMBMASTER as its sole Emerging Activity, Craig developed an Intrinsic Value of between \$7,110,000 and \$8,352,000, with a mean of \$7,731,000, as shown below:

		\$'000
	Low	High
Existing Operations		
Sustainable Net Income	1,220	1,220
Capitalization Rate	21.0%	17.3%
Capitalized Amount	5,810	7,052
Emerging Activity		
Total Investment	1,300	1,300
Intrinsic Value	7,110	8,352

Lamb's Investment Value to Craig

Investment Value is specific to a particular buyer, depending on its ability to achieve synergies and strategic advantages. Craig had three objectives in acquiring Lamb:

- Entering into the dairy market, where Lamb had successfully introduced a new product in fiscal 2001;
- Expanding its position in the meat field;
- Achieving broader access to foreign markets, particularly Europe and China.

Synergies, Expenses and Strategic Advantages

Craig anticipated the following synergies:

- Accelerated sales of dairy and, to a lesser extent, meat equipment, as some of Lamb's products could also be handled by Craig's existing distributors
- Increased sales of Craig products in Europe and Asia through Lamb's outlets
- Lower R&D costs by combining research facilities
- Improved margins by using Lamb's Asian contract manufacturer for all products
- Reduced administration costs by integrating Lamb's systems and head office with those of Craig

Extra costs are expected for:

- Staff severances
- Integration of Lamb's administration and R&D functions with those of Craig
- Termination of leases on redundant facilities
- Expansion of Craig's Enterprise Resource Planning (ERP) system to cover Lamb's operations.

A potential strategic advantage was reduced competition outside the United States, as in some markets, Lamb and a Craig subsidiary were number one and number two.

Quantification of Benefits and Expenses

Before making its offer, Craig's management identified and quantified what they considered to be the benefits and expenses of the proposed transaction.

Higher Sales
Lamb's sales from its Existing Operations were projected as follows:

				\$'000
	Estimated	Project	ted Stand-	<u>Alone</u>
	2001	2002	2003	2004
Dairy Equipment	5,000	5,395	5,820	6,280
Meat Equipment	15,200	16,035	16,920	17,850
Maintenance	1,574	1,620	1,670	1,720
Total	21,774	23,050	24,410	25,850
Gain	11.8%	5.9%	5.9%	5.9%

The expected annual growth was: dairy 7.9%, meat 5.5%, and maintenance 3.0%. With the proportion of dairy sales increasing, gross margins were forecast to improve slightly.

After the acquisition, Craig's intends to have its sales channels also handle Lamb's dairy equipment, anticipating that this would accelerate gains in that category to approximately 15% annually in 2003 and 2004. Similar actions in the meat category should improve sales growth to between 7.5% and 8.0% a year, excluding LAMBMASTER. Therefore Craig planned that on an integrated basis Lamb's total business after the acquisition would be:

				\$'000
	Estimated	Proje	cted-Integr	ated
	2001	2002	2003	2004
Dairy	5,000	5,400	6,500	7,450
Meat	15,200	16,000	17,300	18,600
Maintenance	1,574	1,600	1,800	1,950
Total	21,774	23,000	25,600	28,000
LAMBMASTER	_	500	1,500	3,000
Entity	21,774	23,500	27,100	31,000
Gain	11.8%	7.9%	15.3%	14.4%
Gross Margin	53.0%	53.5%	54.0%	54.5%

Cross Selling

During its current fiscal year to August 31, 2002, Craig's sales had declined in Europe, but grown slightly in the Americas and strongly in Asia:

					\$'000
	Ac	tual	Expe	cted	Change
	2000	%	2001	%	%
Americas	34,322	46.6%	34,975	53.0%	1.9%
Europe	31,282	42.5%	21,430	32.5%	-31.5%
Asia	7,980	<u>10.8</u> %	9,605	14.6%	<u>20.4%</u>
Total	73,584	100.0%	66,010	100.0%	<u>-10.3%</u>

The \$9,852,000 decline in Europe in 2002, which on Craig's books, for convenience, includes the Middle East and Africa, appeared to be due to local competitors upgrading the equipment supplied to smaller plants. Craig was certain it could recover \$5,000,000 (51%) of the drop during 2002, by entering Middle Eastern markets through Lamb's outlets in that area. With respect to Asia, Craig envisaged adding about \$1,000,000 to its existing sales through Lamb's established position in China. The margins on such additional sales were anticipated to be around 20% in Europe and 15% in Asia.

Reduced R&D

Combining the R&D facilities and completing the LAMBMASTER R&D program was anticipated to lower the annual combined cash (Craig and Lamb) requirement for R&D by 25%, from \$5,368,000 to \$4 million, without needing to curtail the progress of new and enhanced products. This is shown in actual and projected R&D costs:

			\$'000
	Actual	Proje	cted
	2000	2001	2002
Lamb - July 31	1,628	1,938	550
Less LAMBMASTER	(455)	(845)	
Other Products	1,173	1,093	550
Craig - August 31	3,281	3,430	3,450
Combined	4,454	4,523	4,000
Add LAMBMASTER	455	845	
Cash Requirements	4,909	5,368	4,000

Improved Margins

In fiscal 2000, before depreciation and quality control costs, Craig had a gross margin of 63.0%; in fiscal 2001, with lower volumes, especially in Europe, this declined to 61.4%. Lamb's reported levels of 54.3% in fiscal 2000, and 53.0% in fiscal 2001, included the items omitted by Craig.

which were estimated at about 7% of revenues. As Lamb's adjusted margins were not higher than those of Craig, no supportable amounts could be determined for any gains by using Lamb's contract manufacturers for all production.

Administrative Savings

A number of administrative savings were planned; the most important was about \$3,000,000 a year (50% of Lamb's administrative expenses) by combining both entities' offices in the US, Singapore, Britain and Japan, and expanding Craig's ERP system to cover all Lamb's operations.

Extra Costs

Obtaining the \$3,000,000 annual administrative savings will involve:

- Severances of \$1,980,000, based on local practices
- Relocation of offices and staff, roughly \$950,000
- Lease termination for one facility in Tennessee, two in Britain, one each in Singapore, Germany and Japan, estimated at \$700,000
- Expansion of Craig's ERP system, including the conversion of all Lamb's data, for \$500,000 in fiscal 2003, and \$150,000 in 2004.

Competition

The fact that, in some markets, Lamb and Craig held the first two positions in market share indicated that the acquisition would reduce competition in many of those areas, which fortunately do not have aggressive anti-trust authorities. As both companies' products will continue to be offered, any benefits from combining the branch are not expected to materialize until after the projected period.

Post-Acquisition Cash Flows

Lamb's cash flows after acquisition are projected as follows:

Lamb's Existing Operations

		8 - I			
		2002	2003	2004	\$'000 2005
Statement of Operations					
Sales		23,500	27,100	31,000	32,800
Gross Profit		12,510	14,630	16,900	17,800
Expenses					
Distribution	7.5%	1,763	2,033	2,325	2,460
R&D		550	550	550	550
Administration		3,350	4,320	5,370	5,790
Total		5,663	6,903	8,245	8,800
Profit on Lamb's Products		6,848	7,728	8,655	9,000
Profits on Craig's Products					
Through Lamb's Outlets					
Europe		1,000	1,000	1,000	750
Asia		150	150	150	150
Total		1,150	1,150	1,150	900
Operating Profit		7,998	8,878	9,805	9,900
Extra Costs					
Severances		1,300	680	-	-
Relocation		950	-	-	-
Lease Terminations		-	700	-	-
Integration of Systems		500	150		
Total		2,750	1,530		
Pre-tax Profit		5,248	7,348	9,805	9,900
Income Tax	40%	(2,100)	(2,940)	(3,920)	(3,960)
Net Income		3,148	4,408	5,885	5,940
Statement of Cash Flow					
Net Income	_	3,148	4,408	5,885	5,940
Depreciation		300	400	450	500
Maintenance CAPEX		(700)	(668)	(850)	(970)
Required Working Capital	15%	(348)	(540)	(585)	(270)
Cash Flow		2,400	3,600	4,900	5,200

Note: Maintenance CAPEX is the capital expenditures required to maintain but not increase capacity.

Discount Rate

The effective Discount Rate for Lamb's Intrinsic Value was 23.2%. Adding a 25% premium (5.8 percentage points) for the uncertainties of realizing the synergies produces the Discount Rate of 29%, which was used by Craig. Selecting the "high" estimate (5.9%) for future growth after the projected period implies a Capitalization Rate of 23.1%. To determine the 2005 Terminal Amount of \$24,240,000, this Capitalization Rate has been applied to the 2005 projected Net Income of \$5,600,000.

Value Conclusion

The Investment Value of Lamb to Craig is \$15,056,000, as shown below:

			\$'000
Year	Cash Flow	PV Factor	DCF
2002	2,400	0.775	1,860
2003	3,600	0.601	2,164
2004	4,900	0.466	2,283
Terminal Amount	24,240	0.361	8,751
			15,058

This amount is 80% above the high end (\$8,352,000) of the previously established Intrinsic Value. The average of both amounts is \$11,700,000; this is the maximum figure that Craig could pay to ensure that its shareholders receive at least half of the expected benefits.

The Transaction

Before approaching Lamb, Craig had made two British acquisitions in 1999 and 2000; both accounted for as purchases under previous US GAAP. At May 31, 2001, when it was planning its initial offer of \$8,000,000 cash, its strong Balance Sheet allowed for substantial borrowing. At that time it had obtained approval of a term loan of \$8,700,000 over five years; this was to cover the total amount expected to be needed for the Transaction and related costs.

Craig Balance Sheet As At May 31, 2001

	\$'000
ASSETS	
Cash & Equivalents	2,022
Receivables	13,657
Inventories	11,209
Prepaids	1,188
Tax Recovery	168
Property Plant & Equipment - net	3,933
Deferred Finance Charges	202
Goodwill & Intangible Assets	20,421
	52,800
LIABILITIES	
Payables & Accruals	9,762
Taxes Due	213
Deferred Revenues	2,695
Current Portion Term Debt	950
	13,620
Term Loans	4,680
	18,300
EQUITY	
Capital Stock	21,860
Retained Earnings	12,640
C	34,500
	52,800

The year-end Goodwill and Intangible Assets were:

			\$'000
	Cost	Accumulated Depreciation	Net Book Value
Technologies	4,994	2,350	2,644
Brand Name	2,839	1,118	1,721
Sales Channels	2,067	130	1,937
Customer Relationships	2,227	142	2,085
Distribution Rights	1,087	870	217
Assembled Work Force	590	590	-
	13,804	5,200	8,604
Goodwill	12,296	479	11,817
	26,100	5,679	20,421

Purchase Price

The initial offer was \$8 million cash a premium of \$4,531,000 (30.6%) over Lamb's Book Value of \$3,469,000 and \$269,000 (3.5%) over Lamb's mean Intrinsic Value of \$7,731,000.

The final consideration was \$10,960,000, comprised of \$8 million cash and \$2,960,000 in stock (1,409,525 shares at \$2.10 each), plus \$723,000 of Transaction Costs; this amount awarded Lamb's shareholders 44% of the synergies.

The Purchase Price Allocation by Craig of the \$11,683,000 total consideration for the acquisition is covered in Part V and the subsequent testing for Impairment in Part VI.