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New Tech Case Story

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New Tech Case Story

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New Tech Case Story : Overview

A small but successful company considers its future.

The Company

New Tech Distributors Corp. (New Tech) assembles and distributes computer components from their facilities in Burnaby, British Columbia. The company distributes 30% of its products to companies in the United States and the balance across Canada. Stuart Chip, 38, started the company in his basement in 1995. He had just returned to Canada after spending five years with Digimoti, a Japanese semiconductor company. Today, New Tech has 20 employees and approximately \$3 million in annual sales.

New Tech distributes computer components by courier, primarily to the replacement market, including small computer repair shops, as well as larger retail and service organizations. About 70% of its volume is transacted with small businesses while the balance is with larger "blue chip" companies. About 80% of the company's products are purchased from third-party suppliers and delivered to customers with no value added. The remaining 20% consists of computer power modules, which the company assembles.

Stuart currently owns 100% of the company but is considering offering some shares to his management team: Elizabeth Pratt, accountant; John Harley, sales manager; and Kevin Matley, who heads up production.

The company has experienced rapid growth, and research indicates its market continues to expand. Many computers in use now are showing signs of age; repairs are common and many users want to upgrade their existing computers. Home personal computers represent a growing market but, given New Tech's relatively small sales volume, the company believes it only accounts for 0.5% of the total North American market. Its marketing plan shows the company doubling sales in less than five years.

Challenge: How to Grow?

Despite Stuart's initial success, he is concerned that New Tech cannot continue to grow without an injection of additional capital. His bankers have advised him that he will not meet New Tech's sales objectives without such an infusion. Stuart wants to expand the power module side of the business by introducing a new line of products. At this point, he is considering non-conventional financing. But he has never done this before. Where does he start? How complicated is the process? How much money does he need?

An Advisor

Clearly, Stuart needs some answers. His banker recommends meeting with a financial advisor and gives him three names. Stuart interviews the three candidates and chooses

one after checking references, including their past experiences raising financing for small businesses in his industry.

Stuart chooses Grand Argent, a financial advisor with experience in raising venture capital and knowledge of the computer hardware industry. Stuart wants Grant to help guide New Tech's effort to secure the investment they need.

Solution: Attract Growth Capital

When they get down to work, Stuart asks Grant to outline, on the whiteboard in his office, the process required to raise financing. Grant lists the steps to growth capital:

- Identify New Tech's financial needs.
- Determine possible funding sources.
- Demonstrate New Tech's investment potential.
- Demonstrate New Tech's management capabilities.
- Prepare an investment proposal.
- Identify potential investors.
- Meet with potential investors.
- Negotiate the deal.
- Close the deal.

New Tech Case Story: Step 1

The Challenge: How Much Do They Need?

How much growth capital will New Tech Distributors need to finance its future growth?

Stuart Chip, founder and owner of New Tech Distributors Corp. wants to take his company to a higher level. He is very optimistic about New Tech's expansion program and its capability for producing power modules. He realizes that the key to New Tech's future growth and success is to produce and sell a new line of highly profitable power modules that can provide New Tech with higher margins and improved financial performance. He feels that the market for power modules is growing rapidly and this is the right time to expand. But Stuart needs growth capital to build new production facilities, market the new line and fund ongoing operations.

Key Tasks

To determine how much money New Tech will need, Stuart must decide:

- How will New Tech develop its plan for growth?
- Do they need outside expertise? If so, who: an investment advisor? a lawyer?
- Who will do the financial projections?

- How will they make their projections? What sort of assumptions are they going to make?
- How much money they actually need for specific purposes?

Take a Closer Look

New Tech Financial Forecasts

Have a look in the Appendix for New Tech's projected financial statements and other forecasts.

The Challenge: Determining Needs

How will Net Tech prepare its forecasts?

Will New Tech use external advisors?

Stuart Chip decides to hire a financial advisor, Grant Argent, to help determine their financing requirements and prepare an investment proposal. But he wants his managers to do most of the groundwork. Grant's role is to ensure that New Tech is on the right track. Stuart realizes that as his team gets into the more technical parts of the investment proposal, such as business valuation, they will have to rely more extensively on Grant's experience and knowledge. However, Grant suggests that the company should retain a lawyer to ensure that the methods used for raising funds conform with securities regulations.

How will they develop the projected financial statements?

Stuart asks Elizabeth Pratt (New Tech's in-house accountant) to take the lead in this project. However, because of the importance and complexity of this proposal, he wants Elizabeth to get as much information as possible from the company's management team to help her out in preparing the first draft of the investment proposal.

The first thing Elizabeth wants to do is formulate New Tech's financial projections based on the company's objectives and plans. After extensive discussions with key members of the management team, she is able to prepare income statements, statements of retained earnings and the balance sheets for three years. Elizabeth understands that she will have to extend these projections by another three years for the actual investment proposal. But the initial projections give her and the management team a starting point for assessing their needs.

What will investors need to know?

Elizabeth realizes that potential investors will be asking questions about the assumptions used in producing the financial projections. They will be particularly interested in the calculations used to determine the working capital needs. For this reason, with the help of the management team, she puts together a presentation showing New Tech's financial

projections for liquidity, leverage, management and profitability expressed as *financial ratios* (consult the Appendix).

Investors will also want to explore the assumptions used by management to determine their sales revenue and expenses. She produces a list of *key assumptions* (consult the Appendix). She then uses a spreadsheet to perform a *sensitivity analysis* (consult the Appendix). The analysis shows how variations in key assumptions would impact the company's profit and cash flow financial projections. For instance, she prepares a sensitivity analysis using 5% and 10% reductions in sales revenue. These indicate what impact such drops in sales revenue would have on New Tech's financial performance, particularly its profitability, sustainable growth rate, financial health and return on investments.

The Challenge: Financial Projections

What sort of financial future is New Tech expecting?

Elizabeth prepares a set of projected financial statements that show how the introduction of the new line is expected to change New Tech's financial situation.

Cost of a New Production Facility

The company's *Balance Sheets* (consult the Appendix) show that building a production facility for the new line, which will increase New Tech's production capacity, will cost \$1,100,000 in 2001. This is shown as an increase in capital assets between 2000 and 2001.

Revenue and Expenses

New Tech's projected *Income Statements* (consult the Appendix) show that sales revenue is expected to grow from \$3,000,000 in 2000 to \$4,700,000 by 2003 with the introduction of the new product line in 2001. The new product line is also expected to generate substantial increments in income after taxes (from \$204,000 in 2001 to \$548,000 by 2003).

The Income Statements also reflect sales manager John Harley's need for \$225,000 in marketing funds to launch the new product line successfully. These expenditures are included in the 2001 expenses as selling expenses.

Working Capital Requirements

Elizabeth calculates that the 30% increase in sales revenue in 2001 would require additional investments in working capital of \$200,000. As the table below shows, the working capital requirements break down this way: \$100,000 will be invested in accounts receivable, \$75,000 in inventory and \$75,000 in other working capital accounts. This \$250,000 will be partly financed by a \$50,000 increase in accounts payable, leaving a

requirement of \$200,000. (Her calculations are based on *cash flow forecasts* (consult the Appendix) and forecasts of *changes in financial position* (consult the Appendix).)

accounts receivable	\$100,000
inventory	\$75,000
<hr/>	
subtotal	\$175,000
less: accounts payable	\$50,000
<hr/>	
net working capital	\$125,000
other working capital accounts	\$75,000
<hr/>	
net change in working capital	\$200,000

Earnings

The Statement of Retained Earnings (consult the Appendix) indicates that the company will pay a small amount of dividends during the forecast period, allowing retained earnings to grow from \$654,000 in 2001 to \$1,277,000 by 2003.

Sensitivity Analysis

Elizabeth includes her *sensitivity analysis* (consult the Appendix) in the package of financial forecasts. It shows the amount that income after taxes and other key measures will be affected by a 5% or a 10% reduction in sales revenue.

Break-Even Point

Another element of the proposal that Elizabeth feels is important to calculate is New Tech's break-even point. Before making this calculation, Elizabeth had to discuss with the production manager the level of production required to cover the fixed and variable costs associated with the new line. To calculate the break-even point, she needs information about the expected unit selling price, expected sales volume, and the marketing variable and fixed costs. She also had to go through each item on the income statement and classify all costs under two categories: variable and fixed. After going through this exercise with the management team, she figured out that, in 2001, total variable costs would amount to \$1,250,000 and fixed costs, to \$2,334,000. She uses the information to determine the amount of revenue that would be required for the company to break even over the forecast period.

Tax advantages

In preparing her forecasts, Elizabeth recognizes that New Tech may be eligible for government assistance through tax credits on the research and development expenses for product development. She looks into this by accessing Revenue Canada's Web site (<http://www.cccrc-adrc.gc.ca/>). The rules are very complex and she would have to consult with a tax advisor to review this calculation. She plans to include the effects of these estimated tax credits. She knows that if her calculations for the credit amounts and timing of receipt are not accurate, they would affect the total amount of financing required by New Tech.

After reading the regulations, she is of the opinion that New Tech is eligible for a refundable investment tax credit on the current expenditures undertaken to develop the power modules, the assembly line and future products.

The Solution: Financial Needs

How much money does New Tech need to raise?

Using the projected financial statements, Elizabeth calculates that New Tech will require the following funds to launch the new line:

Equipment to produce new line (fixed assets)	\$1,100,000
One-time marketing costs (selling expense)	\$225,000
Ongoing operations (working capital)	\$200,000
Financial cushion	\$50,000
<hr/>	
Total financial needs	\$1,575,000

After reviewing the financial projections, assumptions and *sensitivity analysis* (see the Appendix), Stuart believes that the forecasts are realistic. He feels that the market would support the estimated price and profit margins.

What New Tech Learned

During this step, Stuart and his team have learned:

- to seek the advice of a financial advisor and legal counsel early in the process;
- that financial advisors are mainly coaches, and the New Tech management team will be doing most of the work;
- to use its own management team as much as possible in identifying financial needs;
- to document their financial assumptions;
- to examine their forecasts under various future scenarios; and
- that there are numerous factors that may influence their financing needs.

The next step is to examine funding options and put together a financial package that will interest investors.

New Tech Case Story: Step 2

The Challenge: Where Will the Money Come From?

Where will the money come from?
How much from:

- Cash flow and other internal sources?
- The bank?
- Risk capital sources?

What They Need To Raise

New Tech now has to consider possible sources of financing. Stuart Chip, New Tech's owner, and Elizabeth Smart, his in-house accountant, have a good handle on how much financing they need — \$1,575,000.

Equipment to produce new line (fixed assets)	\$ 1,100,000
One-time marketing costs (selling expense)	\$ 225,000
Ongoing operations (working capital)	\$ 200,000
Financial cushion	\$ 50,000
<hr/> Total financial needs	<hr/> \$ 1,575,000

They feel they've got a strong case to present to investors, with a comprehensive set of financial forecasts and well-documented assumptions.

Where Will the Money Come From?

Their challenge is to determine how much of the \$1,575,000 will be financed by:

- the company's internal sources (i.e. cash flow from operations, supplier credit, etc.);
- external conventional financing sources (i.e. bank operating line or term debt), and;
- risk capital or non-conventional sources (i.e. subordinated debt or equity).

Key Tasks

In order to answer these questions, they've got to:

- meet with their bank to determine how much funding they may provide.
- examine the company's own operations for possible "internal" sources of funding.
- consult with an investment advisor and legal counsel on non-conventional, external funding sources.
- consider how much they want to fund with debt (borrowing money) and how much with equity (sale of shares)?

The Challenge: Conventional Funding

What can conventional external and internal sources of funding can New Tech tap?

The Bank

Stuart and Elizabeth meet with New Tech's banker, Ted Mooney. He clearly states that the expansion program contemplated by New Tech is too risky and that the bank cannot cover the entire financing package. New Tech's bank will lend only a very small amount to the company on its accounts receivable and inventories. Mooney explains that the bank doesn't finance high-risk projects (by contrast, risk capital investors do finance them).

Mooney tells them that the bank will finance only part of the capital assets and working capital accounts, but not the marketing costs and the cushion. The bank would be prepared to provide a loan of \$200,000 to finance part of the cost of the production line (i.e. long-term credit). This would be a five-year term loan, with annual payments bearing an annual 10% interest charge. The bank is also prepared to increase the existing operating line by \$25,000.

Mooney indicates that the company's track record has not been proven enough and he is not convinced of the validity of the information contained in the forecast. Mooney's main concern is the lack of experience in managing a fast-growth business. He emphasizes that Stuart's prior experience has been in managing a division of a larger company.

Internal Sources

Elizabeth's forecasts indicate that \$275,000 will be financed by internal sources (this would cover the one-time marketing costs and a financial cushion). Another \$200,000 for working capital will be covered by internal cash flow and supplier credit.

Looking Elsewhere

So, Elizabeth's calculations show that internal sources and the amount the bank is willing to lend will help finance about half of the required funds.

Total financing needs		\$1,575,000
Funded by:		
Internal sources (cash flow and operating line)	\$775,000	
Bank long-term debt (new loan)	\$200,000	
	<hr/>	
Subtotal	\$975,000	
Estimated risk capital financing required		\$600,000

The Challenge: Risk Capital Options

Should New Tech pursue Equity or Debt financing?

Elizabeth is now ready to go over the numbers with Grant Argent, New Tech's financial advisor, to discuss the pros and cons of non-conventional long-term financing and what capital structure would be most appropriate.

Equity or Debt?

Grant suggests two options: equity participation and a subordinated debt investment. He prefers equity, as it is a long-term investment where the company does not have to make interest or principal payments. Grant feels that at this stage of the company's growth, New Tech should reinvest the maximum earnings back into the business in order to fuel its growth for the next several years. Equity funding will allow the company to reinvest its earnings in this way.

Grant explains that although the cost of equity will be on the high side (investors typically seek a return between 25% and 40% per annum), the cost would not have to be paid by the company on an annual basis. The high return expected by the risk capital investor would be earned at exit, through a buyout situation or an initial public offering.

Grant also points out that though subordinated debt may be a cheaper alternative, it would likely be difficult to raise these funds, given the short track record of the company and the perceived volatility of the industry.

The Solution: A Financial Package

How will New Tech match their needs with sources of funds?

Elizabeth now knows where she is headed. The bank will cover part of the expansion, but most of the investment would come from outside equity. She calls a meeting of the management team and circulates the financial projections in advance, together with a memo on the proposed capital structure, and the pros and cons of equity and subordinated debt financing.

The package features a capital structure with more equity (\$600,000) than debt (\$200,000) financing for their long term needs. They are funding their capital needs with internal cash flow and short term borrowing.

The Package

Cost or Investment Required	Total Cost	Internal Cash Flows and Operating Line	Term Debt	Risk Capital
New Line	\$1,100,000	\$300,000	\$ 200,000	\$ 600,000
Marketing costs	225,000	225,000		
Additional working capital Cushion	200,000	200,000		
	50,000	50,000		
Subtotal	\$1,575,000	\$ 775,000	\$ 200,000	\$ 600,000

What New Tech Learned

Stuart and Elizabeth now recognize that:

- There is a range of funding sources open to growing businesses.
- They will have to put together financing from a variety of these sources in order to meet their funding needs.
- Long-term risk capital financing options include equity and subordinated debt. They prefer to use equity because it allows them to reinvest earnings into the business.
- Long-term conventional financing options they might consider are mortgages, leasing and term loans. They will pursue a long-term loan from their bank.
- They will include cash flow, supplier credit and an extension of their bank line of credit as part of their short-term risk capital financing.

New Tech Case Story: Step 3

The Challenge: Are They Worth an Investor's Time?

Can New Tech make itself attractive to investors?

Can it prove that it has:

- growth potential in the marketplace?
- prospects of exceptional return on investment?
- a way for investors to get their money out?

Grant Argent (New Tech's financial advisor) stresses that the management team must be able to convince investors that New Tech is a fast-growing business with excellent profit potential. He informs Stuart Chip (New Tech's president) and Elizabeth Pratt (New

Tech's accountant) that this evidence has to be documented in a convincing manner in an investment proposal. To do this, they must gather critical information that investors will need to examine before making their decision to invest in New Tech.

Potential investors, not to mention Stuart and his team, will need reliable information to:

- see what the company's growth opportunities are and how it will exploit them;
- put a value on the company's growth opportunity and expected return;
- determine the risk element and expected return on investment the investors want to earn; and
- arrive at some parameters for the share of equity the company will offer.

Elizabeth can do some of the groundwork on her own, but she asks Grant for some help with the technical analyses that will be required.

Key Tasks

The New Tech management team will have to take on a variety of tasks:

- assess the external environment, including economic and industry-specific trends, and an analysis of their competitors;
- examine their own procedures and processes, and develop plans to optimize them to achieve the growth targeted;
- determine what they feel is the value of the company now, at the beginning of the investment period, based on their financial forecasts;
- decide on how the investor would be able to take his or her money out and calculate a projected value for the end of the investment period; and
- determine what rates of return an investor might expect given their proposal and forecasts.

The Solution: How Does New Tech Stack Up?

Are the market conditions right for New Tech's growth? How does New Tech compare to its competitors?

New Tech in Context

Elizabeth starts by developing background information on New Tech's industry and how it is being affected by current economic trends. She tries to answer these questions:

- Who are New Tech's competitors?
- What are the economic trends in the industry?
- What are industry analysts predicting?

Grant has made it clear to Elizabeth that investors will need to be well informed about New Tech's growth potential, the industry and the markets in which it competes. She also

takes to heart his advice that third-party industry information will help enhance the credibility of the investment proposal.

She meets with Stuart and John Harley (New Tech's sales manager) to determine the type of information and the most relevant information that would be required to convince investors that New Tech is involved in a high growth industry with extraordinary potential.

Sources and Analysis

Elizabeth gathers the information from a number of sources on the Internet, including New Tech's industry association, Industry Canada's data base (which provides data on a by-sector basis), Statistics Canada and various business periodical databases. In addition, Elizabeth uses an industry market research report Stuart ordered last year from EconTechData. She also calls a few brokerage houses for reports on the industry.

Elizabeth is able to obtain information on industry shipments, the growth rate of the industry, major markets and key competitors. She quickly realizes that gathering the information is the easy part of the analytical process; sifting through it all and deciding what is pertinent and most relevant to their project is the most difficult.

The Outlook

She collects enough information to confirm that:

- the market for power modules is growing rapidly;
- New Tech is pursuing a conservative market share based on a production level of 2,500 power modules per year;
- industry-wide shipments have increased by 25% over the last two years (according to Statistics Canada data).

The Competition

Based on the industry information she obtained, Elizabeth indicates she is going to prepare a competitive matrix to compare the attributes of each competitor's products to those of New Tech. By benchmarking New Tech against its competition, Elizabeth is convinced that she will be able to demonstrate clearly New Tech's competitive advantage.

Proving the Potential for Growth

The management team meets to discuss the business environment they are operating in and identify their key opportunities and threats. Stuart invites Grant to help bring an objective viewpoint, from someone who knows what investors will ask. Before the meeting, Elizabeth circulates, to all members of the management team, the information and statistics she feels are pertinent for the discussion.

At the meeting they review the information on key industry characteristics, New Tech's opportunities and threats within the industry and market environment. Then the team discusses their prospects and next steps.

Stuart believes that the competitive analysis and benchmarking, together with the other industry information Elizabeth has compiled, will satisfy the investors about New Tech's market opportunity and growth potential. Grant agrees. He stresses New Tech's strong competitive advantage and the reasons why it is unique. He is able to articulate his vision of New Tech's future and how he feels it can capture a larger share of the market. He feels that the size of New Tech allows the company to compete effectively against larger competitors.

The next step is to clarify what New Tech itself will do to capitalize on the market opportunities.

The Solution: Getting Their House in Order

What are New Tech's strengths and weaknesses? Can they show investors they have what it takes?

Taking a Hard Look at New Tech Itself

Stuart realizes that an important step in becoming investor-ready is doing a tough analysis of their internal operations and building a plan that deals with their weaknesses and builds on their strengths. He addresses this analysis and planning session in the next management meeting devoted to their growth plans.

Elizabeth mentions at the meeting that she will be able to write the first draft on New Tech's business environment and market prospects. However, she points out that information about New Tech's products and product life cycles in each of their respective markets including pricing strategy, and the company's operational and management strengths and weaknesses will have to be drafted by different members of the management team.

During the meeting, Stuart informs team members that the strategy behind the new product line is to focus on value-added components. The discussion also centres on the following points:

- market size and the demand for power modules;
- how the company is going to hire and train new staff for the new product line;
- the importance of securing the estimated gross margin on the new product line;
- the strategy for targeting new customers during the first year;
- management's strong and weak points in each division (production, marketing, etc.); and
- plans for preparing with the launch of the new product line.

Elizabeth writes down the specific actions the members of the management team believe are required in order to exploit New Tech's strengths, the specific actions required to minimize the identified threats and a plan to mitigate identified corporate weaknesses.

The next topic on the agenda is the financial valuation of the company. Because of the complexity of the financial data and analyses, Stuart turns over the meeting to Grant, their financial advisor.

The Solution: What's the Company Worth

How can New Tech determine its value with only cash flow forecasts to go on?

At the meeting, Grant explains to the management team that the valuation is critical for both investors and the company. The goal is to use valuation methods to produce a rough estimated value for New Tech's common shares today. He and Elizabeth have prepared documents showing the methods used to put a price tag on New Tech's market data. (See *New Tech's Valuation Process* in the Appendix.)

Valuation — The Company's Perspective

Grant points out the importance of having a solid understanding of New Tech's value - if they don't know what the company is worth, they won't know how much ownership they have to give up in exchange for the investment they need. If the company is worth a \$2 million, then a \$600,000 investment represents a big piece of the business - a large percentage of the equity. On the other hand, if the business is worth \$10 million, then an investment of \$600,000 represents a much smaller proportion of the business's equity. The other benefit of determining New Tech's value is that it will provide management with a clearer understanding of how investors will evaluate New Tech as an investment opportunity.

Discounted Cash Flow Methods

Grant points out that he has used the discounted cash flow technique for valuing New Tech, and though he is aware of other methods, he feels that the discounted cash flow approach is the most appropriate. Grant explains to the members of the management team the various steps involved in the process.

1. Determine the value, in today's dollars, of the cash flow New Tech expects over the next five years. (Technically speaking: calculate the present value of the after-tax cash flow of New Tech for a period of five years.)
2. Determine what the company's value or probable selling price will be at the end of the five years and what that amount is worth today. (In technical terms: find the residual value of New Tech at the end of the forecast period and then find the present value of this amount.)
3. Calculate New Tech's estimated market value by adding these two amounts: the value of the income over the five years and the value of the company at the end of

the five year period. (In practice: add the two components and make other necessary adjustments, such as adding back redundant assets and tax shields on existing assets on hand at the end of the forecast period).

Cash Flow Forecasts are the Basis of the Value Estimates

In calculating his preliminary estimate of the value of New Tech's shares, Grant essentially took the forecasted cash flows prepared by Elizabeth and discounted them to their present value by using an appropriate discount rate. The discount rate used was 20%. Grant subjectively determined (with input from New Tech's management) the 20% discount rate based on estimated required rates of return, as well as economic, industry and company-specific risk factors. He gets a discounted cash flow of -\$147,000. (Consult the Appendix and take a closer look at the figures and the rationale in *Determining Discounted Cash Flow*.)

Finding the Value at the End of the Investment Period

In determining the residual value of New Tech, which represents the value of New Tech for the period after the forecast, Grant used the cash flow from the final year of the forecast and assumed that this level could be sustained into the future. This cash flow was then capitalized at a rate of 18% (20% discount rate less 2% representing the long-term inflation rate) and then discounted back at 20% to determine its present value. Based on this information, Grant estimated New Tech's value to be \$2,920,000. (Consult the Appendix and take a closer look at the figures and the rationale in *Calculating the Discounted Residual Value*.)

Fair Market Value

Elizabeth and Grant then determined New Tech's estimated fair market value. They added the present value of the cash flow from operations (-\$147,000) to the present value of New Tech's estimated residual value (\$2,920,000). Since no adjustments were required (e.g. adding back redundant assets), New Tech's estimated fair market value was then estimated at \$2,773,000. (Consult the Appendix and take a closer look at the figures and the rationale in *Determining the Estimated Market Value*.)

New Tech's Estimated Market Value, Derived by Discounting Cash Flows and Residual Value

	Projected	Discounted to present value	Notes:
Cash flows	\$213,000	-\$147,000	Discounted at 20% over five years.
Residual value	\$7,267,000	\$2,920,000	Capitalized and discounted based on 20% discount rate over five years.
Estimated fair market value today		\$2,773,000	

The Solution: Valuation — The Investor's Perspective

How can New Tech determine its value
With only cash flow forecasts to go on?

Once Grant has established a value for the company, he discusses the investor's perspective. Of course, investors will be looking for an exceptional return on their investment. They will also want to determine how much of the firm's shares they need to acquire to command that return.

Grant expects the risk capital investor will want to earn an after-tax return of 40% to compensate for the risk. The rate of return reflects investors' perceptions of the economic, industry and company-specific risk factors. It also accounts for the alternative investments available. Grant thinks that 40% will be adequate compensation for the risks associated with investing in a new, untried venture like New Tech's growth plan.

Grant explains that investors will evaluate the percentage of shares they require by looking at the potential return at exit; that is at the end of the investment period. This exit might be achieved through an initial public offering, a sale of the whole company, a buyback or redemption of the investors' shares or other means. The investor will be getting a percentage of the value of New Tech's shares at exit and will want to be sure that percentage is high enough for them to hit their rate of return target of 40%.

Grant's initial assessment is that New Tech will fall short of an expected 40% after-tax return on investment for its investors. If that is so, they'll need to alter their offering somehow to accommodate investor's demands, possibly the percentage of shares they will offer. But first, he explains how the calculations are done.

Return on Investment Before Tax

Grant starts with the assumption that potential investors would likely want to exit around 2005 when the total value of the company will have grown to \$10,464,000. If the investors have 40% of New Tech's shares at the time of exit, their shares would be worth \$4,186,000. This means that the initial \$600,000 investment by risk capital investors would generate, by 2005, an estimated cash flow of \$4,186,000. This is equivalent to a 47.5% before-tax return on their investment. (Consult the Appendix and take a closer look at the figures and the rationale in *Calculating the Investor's Return*.)

Return on Investment After Tax

Grant's calculations indicate that when calculating investors' after-tax return, the investment would yield \$2,842,000, a 36.5% return. The difference between before and after tax returns is due to capital gains on the investment and the investors' estimated tax portion.

So Grant's initial hunch was right: the 36.5% return will fall short of the 40% return expected by investors. Grant and the management team discuss their options:

- Would New Tech let go of more of their equity participation to the risk capital investors in order to satisfy their return needs?
- The discount rates (i.e. 18% and 20%) used in the calculation reflect management's views of the general economic, industry and company-specific factors that are appropriate to New Tech. Should these discount rates be altered? Both these points will have to be discussed during the negotiation process.

Next Steps

Now that New Tech's management understands the importance of an initial valuation and how investors will view the company's investment potential, they can move on to one of the most critical steps in raising risk capital. They'll have to demonstrate to potential investors that they have the management capabilities to implement and manage New Tech's growth plan successfully.

What New Tech Learned

In the process of examining their competitive prospects and the value of their company, New Tech has learned the following:

- Their biggest lesson has been the importance of looking at the growth opportunity through the eyes of potential investors. Investors need to have the growth potential demonstrated to them: in terms of business planning and expected return on investment.
- It's critical that New Tech's management team does its homework and knows the industry and current trends.
- Investors will be looking for a plausible plan backed by solid qualitative and quantitative evidence of market potential.
- For their own use, and when preparing their investment proposal, the management team benefits from an analysis of the business environment, including their competitors.
- They learned the importance of properly estimating a valuation of the company and the need for expert assistance in preparing valuations.
- The team needs to set a value for the company, to help determine what equity share will be offered to investors.
- Investors have different views of returns on investment and the New Tech plan has to demonstrate that the investor can achieve what he or she wants.

New Tech Case Story: Step 4

The Challenge: Is Management Ready?

Do New Tech's managers have the skills and experience to take the business to a new level?
Is the management team up to the task?

The Team

Investors will only be interested in New Tech Distributors Corp. if the company is led by a skilled, professional management team. That's the message Grant Argent delivers to Stuart Chip. Grant, New Tech's financial advisor, tells Stuart, the company's owner and President, that investors will be looking for management that can achieve New Tech's ambitious growth objectives. That means a team with the right experience, skills, and qualifications - and the commitment to succeed.

What Investors Want

Grant explains that the management team's past track record is very important to investors. They will want to scrutinize the management team's business credentials and qualifications. And they'll ask how the company resolved earlier business and management problems. Investors will be looking for evidence of a strong and cohesive management team that compares favourably to its competitors.

Grant suggests that New Tech perform an audit of management capabilities that will identify both strengths and weaknesses. Grant argues that highlighting weaknesses will push the team to take the necessary steps to improve. It will also provide investors with convincing evidence that New Tech is fully committed to its growth potential and objectives.

Key Tasks

In order to show the company's management capabilities, Grant and Stuart will have to answer the following questions:

- How good is the current management team at the key functions of marketing, sales, finance and operations?
- What are the team members' specific skills and experience in product knowledge, financial management, human resources, production, and research and development?
- What aspects of the current team's skills and composition are weakest or least prepared to embark on the new growth plans?
- What can New Tech do to improve its management capabilities?
- How can New Tech demonstrate to investors that it's building a management team for the future?

The Challenge: Auditing the Management Team

What are the strengths and weaknesses of the management team?

How is the Team Assessed?

Grant Argent, New Tech's advisor on growth capital, carries out an assessment of the management team's capabilities using a Management Audit tool to guide him. He reviews the job descriptions of all members of the management team and all key employees. He then interviews each member of the management team.

What are the Team's Strengths and Weaknesses?

Finance

Elizabeth Pratt (37) is the company's in-house accountant. She's good at her job but Grant is concerned that she may not have the skills required to take New Tech to the next stage of development. She obtained a general arts degree from a local university and is now taking evening courses in accounting. Her previous employment was with a software company where she worked in the controller's department.

Elizabeth may not have the skill or experience needed in three key areas: cost accounting, financial analysis and equity financing. First, her lack of knowledge in cost accounting may be a problem for New Tech when the new product line is launched. Second, other members of the management team have commented on her lack of experience in providing them with useful financial reports and analysis. Third, Grant feels that Elizabeth doesn't have the ability to guide the company through an initial public offering (IPO) process that could occur within the next five years.

- Grant's assessment is that the basics are in place for business as usual but the company needs growth-oriented expertise.

Marketing and Sales

John Harley (55), the company's sales manager, is considered a good salesman for New Tech's current product line, most of which could be classified as commodity items. The new line of power modules the company is planning to develop will be made-to-order. They will require someone with the ability to identify customer needs and work more closely with larger, blue-chip companies. Grant feels that Harley doesn't have this particular background.

Harley's previous positions were with smaller companies involved in selling commodity products. Harley also doesn't have the necessary experience in preparing a marketing plan for the new product line. (A market research report on the new product line has been ordered from EconTechData, and the findings are expected to arrive next month.) Grant senses that Harley is more sceptical than Stuart about the prospects for the new product line.

- The current product line is being marketed and sold well. But the new line will require a different set of skills for dealing with new products and new types of customers.

Production

Kevin Matley (41), production manager, gained extensive production experience with larger companies before joining New Tech. His former employer was disappointed when he left. Matley is a strong member of the team with the type of experience and training that the company can build on. However, Matley himself is concerned about the shortage of experienced engineers required to design the new product power modules in time for the scheduled production. He tells Grant that, in today's market, it's time consuming and difficult to find qualified individuals, and he isn't interested in making hasty decisions just for the sake of hiring engineers.

- The production and operations management is ready for growth. The challenge in this area is finding the professional staff to do the job.

Leadership and Teamwork

Stuart Chip (38), the President and owner, is highly regarded by his management team. The members of the management team are good at what they do and function very well together under Stuart's guidance.

In preparing for growth, Stuart's prior experience with a larger organization is an advantage; he worked in an environment where a business expanded rapidly. However, the fact that Stuart has worked only for larger businesses is a concern to Grant. He feels that Stuart's lack of experience in managing a small fast-growing business would be considered a weak point in the eyes of investors.

- Leadership and teamwork are clear strengths of the team but Grant wants to find a way to address the lack of experience with rapid growth in small companies.

Legal Advice

Grant meets with New Tech's solicitors to determine their experience in the field of investment securities. The firm New Tech now employs, Pratt, Mat and Spatt, specializes in real estate and has limited background in growth capital investing, capital markets, or securities regulation.

- Grant knows that New Tech will need the specialized legal experience of a firm with experience in preparing financing agreements.

What Next?

Grant's assessment has revealed a number of issues that should be resolved before approaching investors. He meets with Stuart to inform him of his concerns about Elizabeth's and John's shortcomings. Grant also meets with the full management team to review his findings. He reviews the strengths he has identified and presents the key issues

he has identified. Many options are considered in the subsequent brainstorming sessions about how to deal with these important issues.

The Solution: Preparing for Growth

How can New Tech strengthen its management team and reassure investors it's on the right track?

Finance: Growth-Oriented Expertise

Stuart indicates to Grant that he is aware of Elizabeth's limitations and that he is not prepared to replace her at this time. He points out that Elizabeth is taking a course in accounting offered by a local university. Grant stresses the point that in many instances, investors are very knowledgeable about finance and would insist that New Tech find someone with better qualifications, particularly if the company goes public.

The solution that develops is to make Elizabeth the firm's Controller and find someone who has the finance background and experience with growth financing and IPOs to serve as Chief Financial Officer.

Marketing and Sales: New Products and New Types of Customers

Grant also raises his concern about John Harley's weak spots. After their discussion, Stuart indicates he will contact an executive search firm to help find a more senior salesperson to head up the computer module marketing function. He realizes that John may leave New Tech if a new person is recruited to head the marketing unit, but feels that the commodity side of the business presents enough of a challenge that there is a good chance John will stay with New Tech.

Production: Recruiting Professional Staff

In the area of power module development and production, the team feels the timing for introducing the new line is too ambitious. After examining several alternatives, a consensus is reached to delay the new line until the market information is received and initial recruiting can begin. Kevin Matley suggests that they approach one of his former colleagues to head up the engineering and research and development function. If he agrees to join New Tech, they will have the nucleus of engineering talent they need.

Leadership and Teamwork: Lack of Small Company Growth Experience

Grant raises the point that investors may be frustrated with Stuart's lack of experience in managing a small company through the various developmental stages. Stuart responds that if this is a perceived weakness, he would consider looking for an investor with extensive experience in this field.

Legal Advice: Finding the Right Expertise

New Tech's current solicitors suggest another legal firm that has the relevant background to help advise on financing agreements and draw up the documents required.

Next Steps

Stuart agrees to postpone contacting investors until these matters are resolved. In the meantime, Elizabeth is asked to prepare a draft of the investment proposal for review by the management team. Stuart wants the company ready to meet potential investors when these issues are resolved.

What New Tech Has Learned

Though the staffing of several key executives remains a concern, Grant has led the company through a very important process. New Tech is now focussing on one aspect that investors consider to be very important — management capabilities to help exploit the full potential of the company's growth opportunity. The company has:

- learned that investors will want to see the past, present and future strength of the company and its management team;
- recognized the importance of being forthright with potential investors;
- learned it should seriously analyse all aspects of the business;
- recognized the importance of being proactive in improving management; and
- considered addressing shortcomings by upgrading the skills of existing executives, hiring new ones, using advisors, and considering investors who might provide relevant expertise.

New Tech Case Story: Step 5

The Challenge: Get Investors' Attention

How can New Tech attract potential investors?
--

It's now time to prepare New Tech's investment proposal. Elizabeth Pratt, the company's in-house accountant, is pleased by the prospect of preparing the first draft. She knows that it will be a key tool in interesting investors in New Tech.

Elizabeth is well prepared. She's worked with others on the management team to document their financial assumptions, determine their financial requirements and build a deal that will benefit investors and New Tech. She has prepared *New Tech's five-year financial projections* (see the Appendix) for inclusion in the proposal.

She's met with New Tech's lawyer, Tony Lee of Smith & Smith, to discuss which security act provisions the company may be subject to, the prospectus exemptions the company may qualify under, as well as other considerations regarding the presentation/format of the document.

Elizabeth has read extensively about how to organize and write an investment proposal, accessing various sources including business reference books and some Internet sites.

She's consulted with Grant Argent (the company's financial advisor) and she's ready to start writing the proposal.

Key Tasks

To put together an effective investment proposal, Elizabeth will have to fulfill these tasks:

- Think about what investors want to know.
- Present key information, concisely and compellingly, on:
 - New Tech, its market and competitors;
 - the terms of the deal New Tech is offering;
 - key financial data and forecasts; and
 - the management team.
- Prepare an executive summary that will capture the investors' interest.

She's organized the executive summary into three parts.

- The Investment Opportunity
- New Tech's Strategy
- The Management Team

The Solution: The Investment Opportunity

The executive summary should capture investors' interest and entice them to read more.

This first part of the executive summary that Elizabeth prepares:

- gives a sense of the company's track record and where it is going;
- shows how much financing New Tech wants and how the money will be used;
- indicates how much investors stand to earn from the deal; and
- gives an outline of investor exit strategies.

The following proposal is fictitious. It is not based on factual research. It is intended only to illustrate the type of information that should be presented in an investment proposal.

New Tech Distributors Corp.

EXECUTIVE SUMMARY OF INVESTMENT PROPOSAL

New Tech Distributors Corp. is a highly successful distributor of computer components and manufacturer of custom computer power modules. Since its formation in 1993, New Tech's sales have grown from \$470,000 to \$3 million, an average of 30% per year.

New Tech is planning the expansion of **PowerSelect**, its high margin, high value-added

line of power modules. These products are custom-designed, compact power modules for high-end laptops used in scientific fieldwork and other specialized situations.

The Investment Opportunity

New Tech is seeking \$600,000 in equity to launch a \$1,575,000 venture. This financing package will be used to build a new production line for \$1,100,000, develop a new marketing program for \$225,000, increase working capital by \$200,000 and provide a \$50,000 cushion.

New Tech conservatively forecasts increases in revenues averaging 20% a year for the next five years, reaching \$7.7 million by 2005. Annual earnings before interest and taxes are projected to reach \$2,505,000 in five years, yielding an after-tax book profit of \$1,818,000 in the fifth year. Retained earnings are projected to reach \$5.2 million by the end of 2005.

An investment in New Tech provides an attractive combination of minimum downside and significant upside potential. The book value of the company is estimated to be around \$6.0 million by 2005. However, the market value of the company is estimated to be in the order of \$10.5 million, based on the company's after-tax cash flow of \$1.3 million with an 8X multiple factor. **With a 40% share value, the risk capital investor's value of the company is expected to be around \$4,186,000.**

Forecast 2005

Revenues	\$7.7 million
After-tax income	\$1.8 million
Retained earnings	\$5.2 million
Book Value	\$6.0 million
Market Value	\$10.5 million

New Tech's Proposition

New Tech is seeking an investor who can add value to the growth process and provide full board participation. New Tech is prepared to offer a substantial minority interest (40%) in the company's common shares in return for an equity investment of \$600,000, which remains to be negotiated. Given the cash flow that New Tech expects to generate,

management is in a position to consider various scenarios for earnings. Management can also consider the possibility of converting investor equity into subordinated debt.

New Tech is positioning itself for either a takeover or an initial public offering (IPO). Given current revenue projections, a strategic acquisition by a larger company is very likely within the next five to seven years. New Tech revenues could grow significantly above the levels comfortably forecast today and if they do, New Tech may be in a position to undertake an IPO on a Canadian exchange or NASDAQ.

The Solution: New Tech's Strategy

The proposal and executive summary have to tell potential investors what's special about this company and its product.

Elizabeth wants to give potential investors a sense of the approach that New Tech is taking to growth. This part of the executive summary:

- shows that Elizabeth and the others have done their homework, including market research, costing and projections;
- explains the company's market strategy and competitive advantage;
- summarizes key data from the financial projections she's prepared of the company's income statement, balance sheet and cash flows; and
- provides an analysis of the company's strengths and weaknesses.

The following proposal is fictitious. It is not based on factual research. It is intended only to illustrate the type of information that should be presented in an investment proposal.

New Tech Distributors Corp.

EXECUTIVE SUMMARY OF INVESTMENT PROPOSAL (cont.)

New Tech's Strategy

New Tech's new line of customized power modules, **PowerSelect**, is poised to take advantage of a rapidly expanding market and higher margins. The outlook for custom power modules used in high-end laptops is strong, according to New Tech's own market intelligence and a third-party market analysis by Market Strategy Partners.

To date, New Tech has grown on the strength of its **QuickParts** computer component distribution service. While the market for components is expected to remain healthy for the next five years, long-term prospects are weakening.

New Tech's goal is to increase the **PowerSelect** business from 20% to 65% of its revenues during the next five years, and capitalize on the higher margins they provide. Margins in the distribution business are at 55%, while margins for power modules are at 70%.

In 2001, New Tech projects **PowerSelect** sales of approximately 1,500 units, producing \$1 million in revenues. By 2005, it conservatively expects sales to grow to at least 7,800 power module units per annum, or \$5.2 million in revenues. Revenues could exceed this level by several times if the company can leverage its position in this specialized segment of the market to the broader laptop manufacturing market.

Sales Revenue Growth of 150%

	(\$000)
Actual	
2000	
Forecast	
2001	
Forecast	
2002	
Forecast	
2003	
Forecast	
2004	
Forecast	
2005	
QuickParts	
	2,400
	3,000

	3,200
	3,100
	2,800
	2,500
PowerSelect	
	600
	3,900
	1,500
	2,700
	3,900
	5,200
Total Sales	
	3,000
	3,900
	4,700
	5,800
	6,700
	7,700

Target Market

The overall laptop market is experiencing very robust growth with a good outlook for the future. According to research by Market Strategy Partners, an industry analyst, the North American market for laptops has been growing at 16% per annum over the last five years and, over the last three years, the market for high-end laptops has been growing at 20% per annum.

Overall sales of high-end units reached 500,000 in 2000. A power module for one of these units sells for an average price of \$650. Therefore, the total size of the North American market for power modules for high-end laptops is about \$325 million. New Tech's initial target market represents about 20% of this total, or about \$65 million.

The principal target market for the PowerSelect line is manufacturers of specialized high-end laptops and portable computing devices. These buyers will pay a premium for the lightweight, powerful, rugged machines required in scientific and engineering fieldwork and portable global positioning systems. These manufacturers value quick turnaround times on short runs of customized power modules.

The Solution: The Management Team

<p>The investment proposal must give investors confidence in the company's management.</p>
--

The final section of the executive summary:

- demonstrates the experience and skills of the management team;
- shows they are willing to take on new talent to prepare for growth; and
- indicates that investors will be welcome to play a role on the board of directors.

The following proposal is fictitious. It is not based on factual research. It is intended only to illustrate the type of information that should be presented in an investment proposal.

New Tech Distributors Corp.

EXECUTIVE SUMMARY OF INVESTMENT PROPOSAL (cont.)

New Tech's Management Team

To transform the company into a more innovative, high value-added business, New Tech is building on the management team that has been responsible for success to date. The team is adding expertise in finance, sales and marketing, and product engineering.

New Tech also intends to recruit new members with experience related to the PowerSelect product line, and to transform this advisory committee into a formal board of directors. The board will also include representation from the new risk capital investors.

Stuart Chip, MEng, President and CEO. Founded New Tech in 1993 after five years at Miltron Engineering and five years as senior product manager for Digimoti Electronics.

John Harley, Sales Manager. A technical sales specialist for 35 years, John worked for J.L. Praeger Industries, Vancouver, Newton Mechanics, Seattle, and People Developers, Seattle, before joining New Tech in 1995.

Leslie Moore, BA, MBA, Candidate for Marketing Director. Worked in positions with increasing responsibility in marketing for Modern Medical Office Solutions (MMOS), becoming marketing director when MMOS was acquired by Woodbury Modular Systems.

Kevin Matley, BEng, Production Manager. Past experience includes production design at General Technical Corporation, production manager at Crawley Tool and work implementing ISO 9000 and total quality management systems.

Isao Nakamura, MEng, Chief Engineer. Responsible for numerous successful new product designs at Digimoti's Japanese research and development labs. In 1990, he won an award for his design of a power module for laptop computers.

Elizabeth Pratt, Controller. Fifteen years of experience in accounting for small to medium-sized firms, including Soft House and Technotrol Software.

Allison Muntner, CA, MBA, Candidate for Chief Financial Officer. Allison was an accountant at Hocus Pocus, computer games developer, when it went public and served as a project leader with Small Business Strategies Group in Vancouver.

The Solution: Next Steps

To finalize the investment proposal, Elizabeth prepares a table of contents and an outline listing the material to be included in the document. She then calls a meeting of the management team to allocate responsibility for preparing each section of the investment proposal. Grant takes the editing role, and within three weeks the document is almost complete.

What New Tech Learned

New Tech has now reached the point of preparing its investment proposal. This is perhaps the single most important step in reaching the goal of obtaining growth capital.

New Tech realizes that it has done its homework well if:

- its proposal is not a photocopy of its business plan, but a specialized document aimed specifically at the needs of potential investors;
- the proposal is tailored and does not fit a template from another company;
- the proposal was developed with advice from legal advisors, and considers legal and regulatory issues;
- the proposal contains a convincing executive summary, increasing the chance that investors will read the investment proposal; and
- the proposal itself is convincing enough to get that important first meeting with potential investors.

New Tech Case Story: Step 6

What kinds of investors are right for New Tech?

With the investment proposal nearing completion, New Tech must now identify potential investors. But where to start?

Stuart Chip (New Tech's CEO) calls Grant Argent (New Tech's financial advisor) for a meeting with Elizabeth Pratt (New Tech's in-house accountant) and himself. Grant explains that there are different categories of investors: angel investors, institutional investors, venture capital firms, labour-sponsored venture funds, government-backed

corporations such as the Business Development Bank of Canada and so forth. Each investor has investment preferences, making some more attractive than others.

Grant emphasizes that it is critical to ensure that the potential investor matches New Tech's priorities and objectives. Stuart indicates the criteria he feels are important in selecting an investor who will be compatible with New Tech's needs.

New Tech's Criteria For Investors

Capital Required	As calculated in previous steps, New Tech needs \$1.575 million, but of that it needs \$600,000 in venture capital.
Industry Experience	New Tech would prefer an investor with knowledge of the computer industry.
Geography	The closer the investor, the better. Especially because New Tech is looking for an active investor.
Stage of Development	New Tech is looking for an investor who is comfortable funding the expansion plans of an established, profitable company.
Level and Type of Involvement	An active investor would be preferred, given the weaknesses revealed in this area in New Tech's management review. New Tech would benefit from an active investor with experience in fast-growing businesses.
Commitment and Staying Power	The investor has to be committed until the next round of financing, if necessary.
Chemistry	The investor has to be someone with whom the management team can work easily.

Elizabeth Pratt consults with Tony Lee of Smith & Smith, New Tech's solicitors, to determine if there are any exemptions in the securities the company could qualify for and how this would affect its investor contact program.

Key Tasks

To identify appropriate investors, New Tech must:

- determine its criteria (as it did above);
- draw up a short list of possible investors;
- rank and assess them to see which investors match its needs; and
- pick its top choices.

The Challenge: Building a Short List

Who should New Tech consider?
How can the company find prospects?

New Tech relies on its financial advisor to identify prospective investors and build a short list that it can review. Using Stuart's criteria, Grant does an extensive search based on his contacts and various database. He subsequently presents Stuart and Elizabeth with a list of nine potential investors. Grant informs Stuart and Elizabeth that he has dealt with most of them and knows their reputations and past investment deals.

He indicates that he has included a couple of passive investors. He feels Stuart might benefit from meeting with a passive investor just to see the difference in management style, since it's his first time through the process. Grant also adds that it's not unusual for a syndicated deal to take place when an active investor joins a passive investor who trusts his or her business acumen.

The investors that Grant suggests:

Two Individual Investors

- Walter Buffet
- George Van der Meer

Three Private Venture Capital Funds

- Pine Capital
- Van-Hong Ventures
- Chinook Ventures

Two Labour-Sponsored Venture Funds

- Fond de Montréal
- Equal Opportunity Fund

Two Institutional Investors

- Big Chartered Bank Capital Corporation
- Bank of Kelowna Capital Corporation

The Challenge: Ranking Possible Investors

Grant, Stuart and Elizabeth have a three-hour discussion about the pros and cons of the nine potential investors. Roll over the name of each of the investors to see how they assessed them. At some points during the discussion, Stuart wonders whether Grant is sensitive enough to his investor criteria. But they soon turn to consider some interesting possibilities.

Investment Criteria

Name and Location	Financing Instrument and Investment Size	Industry Preference	Active/Passive	Comments
Individual Investors				
George Van der Meer Burnaby	Equity • common shares \$100,000 - \$1 million	• Established companies or startup • All industries except real estate	Active	• Very wealthy and retired • Invests in small business and helps them grow • Past experience in computer components industry • Recently invested in a similar situation
Walter Buffet Victoria	Equity • common shares \$500,000 - \$5 million	• Established companies or start-up • Manufacturing, High tech	Active	• Ex-CEO of Fiji Technologies • Large pool of capital • 55 years old
Private Venture Capital Funds				
Pine Capital Toronto	Subordinated debt and equity \$1 million - \$5 million	• Established companies or start-up • Revenues up to \$35 million • Manufacturing Retail, High tech	Active	• Group of private investors • Minimal background in high tech industry • High monitoring requirements • Likes to be active in operations
Van-Hong Ventures Vancouver Hong Kong	Equity • common shares \$500,000 - \$10 million	• Established high growth companies • Revenues up to \$50 million • High tech only	Active	• International private investors seeking to add to portfolio of investments in high tech companies around the world • Must be a high growth company with strong management • May provide access

				to Asian markets
Chinook Ventures	Subordinated debt and equity	<ul style="list-style-type: none"> Established companies or start-up 	Active	<ul style="list-style-type: none"> Focusses on helping Western Canadian-based businesses
Calgary	\$250,000 - \$2 million	<ul style="list-style-type: none"> Revenues up to \$25 million All industries except real estate 		<ul style="list-style-type: none"> Provides management services and contacts as well as capital
<i>Labour-Sponsored Venture Funds</i>				
Equal Opportunity Fund	Equity	<ul style="list-style-type: none"> Established companies only 	Passive	<ul style="list-style-type: none"> Largest fund in Canada
Vancouver	<ul style="list-style-type: none"> common shares \$500,000 - \$5 million	<ul style="list-style-type: none"> Revenues up to \$50 million All industries except real estate 		<ul style="list-style-type: none"> Minimal monitoring requirements
Fond de Montréal	Equity	<ul style="list-style-type: none"> Established companies only 	Active	<ul style="list-style-type: none"> Focusses primarily on opportunities in Quebec and Eastern Canada
Montréal	<ul style="list-style-type: none"> common shares \$500,000 - \$3 million	<ul style="list-style-type: none"> Revenues to \$50 million All industries except real estate 		<ul style="list-style-type: none"> Takes an active role in operations
<i>Institutional Investors</i>				
Bank of Kelowna Capital Corporation	Subordinated debt and equity	<ul style="list-style-type: none"> Established companies only 	Active	<ul style="list-style-type: none"> Financing arm of Bank of Kelowna aimed at small to mid-sized business
Vancouver	\$250,000 - \$2 million	<ul style="list-style-type: none"> Revenues up to \$20 million All industries except real estate 		
Big Chartered Bank Capital Corporation	Subordinated debt and equity	<ul style="list-style-type: none"> Established companies only 	Passive	<ul style="list-style-type: none"> Financing arm of Big Chartered Bank of Canada aimed at small to mid-sized businesses
Toronto	\$250,000 - \$2 million	<ul style="list-style-type: none"> Revenues up to \$50 million All industries except real estate 		<ul style="list-style-type: none"> Based in Toronto and mostly interested in larger deals in non-high tech industries

Evaluation of Investors

George Van der Meer

Grant knows George Van der Meer personally and says he is a very astute investor who has successfully exited from most of his investments in the recent initial public offerings (IPO) market. He is looking for new investment opportunities in which he could be actively involved. However, Stuart is concerned about his staying power; given his age, he might just want to retire before New Tech reaches the next stage.

Walter Buffet

Walter Buffet is of great interest to Stuart since he is a well-known investor and made a great deal of money when he first invested in a computer company. He also seems to have staying power in that he considers investing between \$500,000 and \$5 million.

Pine Capital

Stuart rejects Pine Capital because he knows the president of a company that Pine invested in. The president told him that the company was unhappy with Pine primarily because it was not adding any value to the firm.

Van Hong Ventures

Both Elizabeth and Stuart are intrigued by Van-Hong Ventures; they have an interest in Asian markets. But ultimately, they feel the company would have enough on its plate just focussing on the North American market. Grant agrees that investors are reluctant to invest in businesses that lack focus. He thinks that New Tech should keep its domestic focus.

Chinook Ventures

Chinook Ventures is well known in Western Canada. It has been around for 15 years, has an excellent track record and expertise in technology. Although based in Calgary, Chinook recently announced the opening of a Vancouver office.

Equal Opportunity Fund

Stuart thinks the Equal Opportunity Fund may be considered too passive.

Fond de Montréal

They are too far away and lack high tech experience.

Bank of Kelowna Capital Corporation

Elizabeth likes the idea of approaching the Bank of Kelowna Capital; however, Stuart is not as responsive to the idea because of the organization's lack of entrepreneurial spirit in view of the fact that it is part of a banking institution.

Big Chartered Bank Capital Corporation

They have limited high tech experience, and Stuart believes they are located too far away.

The Solution: Targeting Preferred Investors

How can New Tech choose its preferred investors?

After three hours, Stuart and Elizabeth, with some coaching from Grant, rank the investors. Based on the rankings and assessment of how well the investors meet their criteria, they decide to approach three investors.

- Walter Buffet
- George Van der Meer
- Chinook Ventures

Buffet was ranked first, followed by Chinook Ventures and George Van der Meer. All three of the investors they chose:

- provide the type and size of investment that New Tech is looking for;
- have technology industry experience; and
- are active investors who can add value with their management experience.

Next Steps

Grant says that that he will arrange meetings. Now it's time to see if the chemistry is right.

What New Tech Has Learned

During this Step, Stuart and Elizabeth learned the following:

- There is a range of investors who have different investment criteria and preferences.
- In order to find appropriate investors, the company seeking financing must be clear as to what it needs.
- The best investor will be the one whose criteria match New Tech's priorities and objectives.
- New Tech will have to be methodical in its search and will probably have to go through a number of investors to find the right one.
- It's necessary to investigate legal and regulatory issues that could affect the investors it will approach.
- New Tech has to consider both tangible and intangible selection criteria in its final decision.
- A good way to reduce the list of possibilities is to rank the short list. This also helps justify the decision to New Tech's own management team.

New Tech Case Story: Step 7

The Challenge: Getting Ready

Can New Tech impress potential investors?
Can they convey their competence and make their proposal come to life?

Getting Ready

New Tech Distributor's management team is getting ready for its first meeting with a potential investor — Walter Buffet. They've narrowed their short-list of prospects to three and, on paper, Buffet is everyone's first choice.

Grant Agent, New Tech's financial advisor, has stressed to the management team the importance of preparing for the meeting. Grant, Stuart Chip (CEO and owner) and Elizabeth Smart (in-house accountant) review what they know: Buffet requested a copy of New Tech's investment proposal in advance of the meeting. He is to meet with them at New Tech's offices. He also requests an agenda and a tour of the plant and office premises.

Grant advises the team that if Buffet has read the proposal thoroughly, as he typically does, he will likely ask questions randomly to the team members covering various topics. They have to be ready.

Key Tasks

Grant explains that the key goals of the investor meeting are to:

- Make a strong first impression, because they won't have another chance for that.
- Establish good rapport.
- Be prepared for specific and probing questions on all aspects of the company and the proposal.
- Know what questions to ask the investor.

The Challenge: Dress Rehearsal

Is the New Tech team ready for "prime time"?

Grant arrives at 9 a.m. for a dress rehearsal. All members of the management team who were involved in the preparation of the investment proposal will be meeting Buffet. They are all at the dress rehearsal.

What Will Buffet Ask?

Grant fires out questions at the management team to help them practice for the types of questions Buffet is likely to ask.

"What is New Tech's competitive advantage?"

"What's the size of your market and how do you know?"

"Why does this company think it has the ability to achieve rapid and sustained growth in such a competitive industry?"

"What are your financial forecasts based on? How liquid will the company be during the expansion? What do they expect their gross margins to be?"

Grant tells the team that the assumptions underlying the financial forecast will likely be a serious topic of discussion. The management team should also expect tough questions about its track record and a discussion of the valuation and exit strategy.

New Tech's Turn

Then Grant let's the management team ask him questions, since Buffet will expect to be questioned.

Stuart takes the lead, asking:

- if Buffet plans to take an active or passive role, and what he means by the term "active"
- how long Buffet intends to be in the investment business
- what his position is regarding follow-on investments (additional investments made by existing investors). For example, if New Tech wanted to make an acquisition and needed money quickly, a follow-on investment could be required.

Stuart will also ask Buffet what role he has taken in other business ventures and their outcomes. Grant says this is perfectly acceptable and recommends that questions for Buffet be written down in advance by all team members. Not all the questions have to be asked at the meeting, but being prepared does encourage a dialogue.

The Solution: The Meeting and After

Can the New Tech team present the opportunity effectively? Can they learn what they need to about the investor?
--

The Meeting

Buffet arrives on schedule. After introduction to Elizabeth and Grant, Buffet asks if he could be given the plant tour before the meeting begins. Elizabeth tries to find Kevin Matley (New Tech's production manager) to accompany Stuart and Buffet on the tour. There is a five minute delay before Kevin is located.

After the tour the team assembles and the meeting goes very much as Grant predicted, but they hit a few bumps on the way. First, it is apparent that Stuart is not very familiar with the assumptions in the financial forecasts and Elizabeth has to respond continually to the questions. Second, the speaker phone in the room is connected with New Tech's paging system and during their discussion, they are continually interrupted. Stuart finally pulls the phone jack. Buffet asks for a copy of the full EconTechData report. He also asks Stuart for personal and business references.

Getting Down to Business

Toward the end of the meeting, Buffet asks what percentage of the company they are offering in exchange for \$600,000, explaining it is a critical piece of the puzzle to ensure the two parties are not wasting their time. Elizabeth responds that they do not have a precise figure since they expect the market to determine the price. Buffet says it is too preliminary for him to make a value judgment, but on the basis that they meet their forecasts, if they are thinking the company is worth more than \$2,500,000, then he is out. Stuart says pricing is not the only criteria for making the investor selection. There are many qualitative factors but the number he quoted is not out of line with New Tech's thinking.

Post Mortem

After the meeting, Grant provides each member of the management team with a post-meeting checklist, which he asks them to complete individually. He then compares the results, which are quite consistent among the team members — a good sign.

Next, he asks the team what they learned from this session to help them in subsequent meetings with other investors. Several observations are made in terms of the additional preparation they could have done, how they should have had Kevin standing by when Buffet arrived and how they could have used overhead slides to illustrate various financial points.

Other Investors, Other Meetings

Grant arranges additional meetings with other investors but the management team always comes back to Buffet as the favourite. The team does not want all its eggs in one basket, so the members decide to also continue discussions with Chinook, the second choice. They have three meetings with Buffet and Chinook, and both indicate they would be presenting term sheets to the company at the next meeting.

What New Tech Learned

All of New Tech's preparations to date have led to this moment. New Tech has met the investors and is prepared to enter the final stages of negotiation. New Tech has learned:

- It was very important to have the management team involved in preparing for the important first meeting with the investor.
- A dress-rehearsal is very helpful in preparing for the meeting.
- Investors are not shy or unsophisticated - they will ask lots of tough and detailed questions about the company's past, present and future.
- It's important to plan the agenda for the whole visit. That includes having the right people available when they are needed, and preparing the meeting facilities and presentation materials.
- Investors may want to get right down to actual negotiations at the meetings so the team has to be ready to discuss the deal they are proposing.
- That debriefing and discussing the meeting among themselves helps improve for subsequent meetings.
- They should not count on one investor; they have to consider several possibilities to obtain the best fit.

New Tech Case Story: Step 8

The Challenge: Choosing an Offer

How will New Tech respond to the offers it gets?

The Offers

Term sheets from New Tech's two potential investors, Walter Buffet and Chinook Ventures, arrive by fax the same day. Both investors had met with the New Tech management team several times, toured the plant, and done some high level due diligence. Now they both submit term sheets outlining the deals they'd like to make.

Elizabeth Pratt (New Tech's in-house accountant) makes copies for all the team members. She faxes one to Grant Argent (New Tech's financial advisor) in Toronto and another to Tony Lee of Smith & Smith, New Tech's lawyers. She arranges a conference call among the management team, Grant and Tony. The New Tech team wants Grant and Tony in on the discussions in order to benefit from their expertise and make the process more objective. They will also be involved in the negotiations.

Choosing One

Both offers are to invest the \$600,000 that New Tech requested. But Buffet's deal is clearly superior. First, Buffet is asking for 44% and Chinook wants 49% of the company for the same investment. Second, Chinook has proposed more stringent terms and conditions. Most important, the team members believe that Buffet will be more involved and could be of greater assistance to New Tech as a business advisor. They decide to focus on Buffet's term sheet.

Key Tasks

Grant warns team members that they aren't going to get everything they ask for. They should focus on being flexible and not view the negotiation as a "win-lose" but as a "win-win" process. They've got to work on the following:

- Determine their bottom-line terms and conditions, acceptable compromises and opening positions.
- Consult with their financial advisor and lawyer throughout the process.
- Think of the investor's point of view when determining their terms and negotiating strategy.
- Stay open-minded and flexible on all issues.
- Look for common ground with the investor.

The Challenge: Negotiating Terms

How does New Tech respond to the investor's proposal?
Where does it compromise and where does it hold the line?
Can the New Tech team see past the details and build a deal it can live with over the long term?

The New Tech team takes a close look at Buffet's term sheet. There are definitely some conditions that they cannot accept "as is". Buffet wants:

1. power to nominate three members to the New Tech Board of Directors;
2. 44% ownership;
3. that New Tech go public by the year 2004;
4. approval power over any capital expenditures greater than \$25,000;
5. a 30-day approval period on a number of items, including expenditures; and
6. an employee option plan put in place before closing.

They work hard to determine how to respond. Throughout the process, Grant tells them to remember the key question: "When you put it all together, is it a good package?"

1) Buffet wants to nominate three members to the New Tech Board of Directors.

- The team understands that board positions are one way for Buffet to stay informed, but New Tech currently has only three board members and Stuart Chip (New Tech's CEO) doesn't want to give up control. Tony, New Tech's lawyer, agrees. He suggests that Stuart propose to restructure the board with two seats as an opening position. Stuart's mother and brother are currently the other two board members. Tony suggests that Stuart consider appointing two non-family members, which Buffet may agree to. Stuart says his bottom line is that he retains control of the board.

2) *The team sees Buffet's 44% ownership proposal as his opening position and wants to decrease the percentage during negotiations.*

- From the valuation work Grant and New Tech have done, it appears 40% is more reasonable. Stuart thinks that, in the context of the entire deal, a 4% differential shouldn't be a deal breaker either way. However, he is willing to compromise. Grant suggests that tabling the valuation methodology might be an objective way to reach 40%, as perhaps Buffet was using different assumptions. The team agrees.

3) *Regarding exit strategy, the term sheet calls for New Tech to commit to going public by the year 2004.*

- The team is concerned that this would be a mistake if IPO market conditions were not right. But yet the members realize that any investor would want a clear exit strategy. Tony recommends a clause that would make going public subject to various considerations, such as factors relating to New Tech's business, financial market conditions and valuation. The team agrees, and Elizabeth asks Tony to draft the clause.

4) *Buffet wants approval power over any capital expenditures greater than \$25,000.*

- Again, the team understands that Buffet wants to be sure that New Tech doesn't spend the new funds on large capital items without his approval. However, many of New Tech's expenditures are between \$25,000 and \$50,000, so this would be cumbersome. Elizabeth expresses the most concern about this point. However, after a spirited discussion, it is agreed to live with it.

5) *Buffet wants prior approval on a number of items, including expenditures, and requests 30 days to give his approval.*

- The team feels this time requirement is impractical. Elizabeth thinks five days to approve items is sufficient, but Stuart points out that one working week is a little harsh since Buffet might be travelling. Elizabeth says her bottom line is 15 days. Tony suggests that in his experience with other deals, 10 days is typical. The team decides 10 days is the opening position with a fallback to 15 days.

6) *Buffet wants an employee option plan put in place before closing.*

- Tony says this would delay closing for several weeks while the legal documentation was put in place. Stuart expresses his agreement in principal to the employee option plan, which he has previously discussed with Buffet, but thinks the time frame is unreasonable. He suggests it be delayed for a year. Elizabeth doubts Buffet would wait that long, since he has indicated how important it is to have employee participation. Stuart says he could live with six months.

The Solution: Striking a Deal

Can New Tech and Buffet find common ground?
Do New Tech and Buffet have the flexibility to clinch a deal?

Getting to a Deal

Grant recommends that he, Stuart and Elizabeth meet with Buffet to negotiate the terms of the deal. They plan their negotiation, developing initial responses and fall back positions to each of the terms that are in question.

The discussions with Buffet go very well. Compromises are found and they finally reach a conclusion after several hours of negotiation. Afterward, Elizabeth tells Stuart that, in her view, the fact that they had planned the negotiation made all the difference. She believes Buffet found them to be flexible and co-operative, and that when it came to pricing, Buffet was won over by the extent of the team's preparation.

The results of the negotiation can be seen in the final term sheet. Tony indicates what an important milestone it was to reach agreement on the term sheet. It will form the basis for drafting the shareholders agreement.

Stuart is surprised at how many closing documents there are. The shareholders agreement alone takes many hours to read and requires a lot of assistance from Tony, who finalizes it with Buffet's counsel. The deal is done!

What New Tech Has Learned

New Tech has now negotiated a deal successfully. It is near the finish line. In the process of receiving offers and negotiating, New Tech has learned the following:

- It's important to respond quickly to offers from investors.
- Approach negotiations from a win-win perspective while keeping the investor's position in mind as options are considered.
- Develop bottom line, opening and fall back positions on key points.
- Almost everything is up for negotiation.
- Negotiations may take time and several meetings.
- Involve legal counsel early in the process and keep them involved throughout.

The Solution: Final Term Sheet

This is the final Term Sheet submitted by Buffet after negotiations with New Tech. Both parties feel they have most of what they want. But most important, they feel they've got the basis on which to work together to build the business.

Buffet Capital Corp.

Private and Confidential

June 21, 2001

Mr. Stuart Chip
President
New Tech Distributors Corp.
20 Burnaby Street
Burnaby, B.C.
V7V 2R3

Dear Stuart:

This letter will set out the terms of a proposed financing of New Tech Distributors Corp. (New Tech). Buffet Capital Corp., (Buffet) will provide \$600,000 of capital on the terms provided herein:

1. On or before July 21, 2001 (the Closing) which date can be extended with mutual agreement of New Tech and Buffet, Buffet and New Tech would enter into a financing agreement whereby Buffet would purchase \$600,000 (Canadian) worth of common shares (the Shares) from treasury of New Tech representing 40% common voting interest of New Tech. This 40% interest shall be non-dilutive to New Tech except in the event of a share offering:

(a) pursuant to a prospectus, registration statement or similar offering having gross proceeds of greater than \$4.5 million; or

(b) where the per share price at which the common shares are offered is equal to or greater than the per share price at which the common shares are issued by New Tech to Buffet..

2. New Tech will use the share proceeds to fund its expansion program including its new computer module production line and marketing campaign.

3. Buffet and the existing shareholders of New Tech shall enter into a shareholder agreement (Shareholder Agreement), which shall provide inter alia that:

(a) Buffet will be entitled to nominate and have elected at least two persons as a director of the company's board of directors. The board will have no more than six directors.

(b) Buffet will be entitled to receive, within specified periods, unaudited interim financial statements for each of the three-month, six-month and nine-month periods in each financial year and audited annual financial statements in respect of each financial year.

(c) Buffet will have a 45-day right of first refusal to participate in any

additional equity financing of New Tech pro rata to its shareholding on identical terms where such financing is other than conventional bank financing. Buffet will give its indication whether it will participate in additional financing within the first 10 days of the 45-day period.

(d) The following matters require Buffet's prior approval, which shall not be unreasonably withheld and be acted upon within 10 business days:

- (i) establishment of dividend policy;
- (ii) any material increase in the total compensation of any of the "key employees" (provided that any increase which is less than or equal to 15% shall be deemed not to be material) ("key employees" as defined in Schedule A);
- (iii) any non-arm's length transactions over \$25,000;
- (iv) the appointment of any new persons to any of the top four "key positions" within the company; and
- (v) any material change in accounting policy.

(e) The following matters require Buffet's prior approval, which shall be acted upon within 10 days:

- (i) any material change of business;
- (ii) the sale of business; and
- (iii) any appointment of a new president.

(f) Where any one or more of the shareholders (the Seller) desires to sell common shares to a purchaser or group of purchasers other than other shareholders (the Buyer) and, as a result, the Buyer would, together with its other holdings, hold at least 45% of the common shares, such sale (the Sale) will be permitted only if the Buyer concurrently makes an irrevocable offer (the Tag-Along Offer) to Buffet to purchase at the same price and upon the same terms and conditions all the common shares held by Buffet.

(g) A satisfactory employee stock option plan shall be put in place within six months of closing. It shall allocate not more than 10% nor less than 5% of the New Tech stock to key employees.

(h) No shares of New Tech may be assigned or pledged without the prior approval of the board of directors.

(i) The board of directors shall periodically review acquisition opportunities to encourage growth in revenues and net income.

(j) New Tech shall state its current intention to complete an initial public offering of its common shares by December 2004 (subject to consideration of all relevant factors at the time, including those factors relating to New Tech's business, conditions of the financial markets and the valuation of New Tech and its securities at such time).

(k) The Shareholder Agreement shall terminate on the completion of an issuance of securities pursuant to a prospectus, registration statement or similar offering having gross proceeds of greater than \$4.5 million.

4. This offer is subject to the following conditions being satisfied prior to or on Closing except for 4(c):

(a) That there shall have been no material adverse change to the business activities of New Tech.

(b) That New Tech and Buffet's boards of directors shall each have approved the terms of this proposed financing on or before June 30, 2001.

(c) Stuart Chip and other key employees shall each have entered into a satisfactory employment agreement with New Tech to the sole satisfaction of Buffet which agreement shall include non-competition positions.

(d) Formal documentation satisfactory to Buffet and New Tech and their respective counsel shall have been completed.

5. New Tech shall be responsible for payment of all solicitors' fees and other professional fees related to the transaction contemplated herein. In addition, New Tech shall pay Buffet an earnest fee of \$25,000 upon acceptance of this proposal. Reimbursement of such professional fees shall only be required to be made, and such payment to Buffet shall only be refundable in the event that Buffet chooses not to proceed to Closing based on the terms as outlined in this letter through no fault of New Tech (it being understood that in the event that New Tech and Buffet are unable to reach agreement on the terms and entitled to have such earnest fee refunded in full and shall not be liable to reimburse Buffet for payment of its professional fees).

6. Buffet will receive an aggregate director's fee not to exceed \$12,000 per annum unless New Tech should otherwise agree.

7. This offer is open for acceptance until the close of business July 21, 2001.

Yours truly,

Walter Buffet
Buffet Capital Corp.

AGREED AND ACCEPTED TO THIS _____ DAY OF _____ 2001.

NEW TECH DISTRIBUTORS CORP.

Schedule A

Stuart Chip

Elizabeth Pratt

Kevin Matley

John Harley

New Tech Case Story: Step 9

The Challenge: Closing

Can New Tech clear the last hurdle and close the deal?
How can they avoid difficulties with the comprehensive due diligence review?

New Tech is near the finish line. It has a negotiated agreement with an angel investor. Now it must close the deal. One of its last challenges is the comprehensive due diligence review required in the investment agreement.

The investor, Warren Buffet, has already done high-level due diligence, before and during the negotiations. He reviewed basic financial information presented with their proposal and checked the personal and professional references of the management team. (New Tech has done some investigating itself. They contacted some of the companies Buffet has invested in and confirmed that Buffet is viewed as an outstanding angel investor.)

Now comes an in-depth review of New Tech's operations and financial status by experts. Grant Agent (New Tech's financial advisor) meets with Stuart Chip (New Tech's CEO and owner) and Elizabeth Smart (in-house accountant) and advises them that the best way to meet this challenge is to be prepared. The review will give feedback to Buffet not just on the numerical results of the work, but qualitative factors such as perceptions of management. If the due diligence review is chaotic due to New Tech being disorganized, it could backfire and Buffet could change his mind.

Key Tasks

New Tech consults with Grant and with Tony Lee of Smith & Smith, their legal counsel, on how to prepare for the review. They recommend some financial and operation housekeeping that will make the due diligence review more smooth.

New Tech must:

- secure intellectual property rights on key assets (New Tech's patents on several modules had not yet been filed);
- bring contracts up to date (a contract with one of the Japanese semiconductor suppliers is expiring, so Tony suggests New Tech arrange to renew it);
- clean up financial dealings between the company and the owner's family (there are a number of non-arm's length family loans to be eliminated);
- appoint auditors (Tony suggests New Tech engage a firm of auditors, as any investor is likely to insist on it); and
- check that the agreement complies with securities regulations (Tony advises them that the transaction New Tech is about to enter into with Buffet is in compliance).

Grant also advises Stuart and Elizabeth to be proactive and contact Buffet and the professionals who will conduct the due diligence review for him. New Tech will be ahead if it finds out what it can expect and how it can help.

The Challenge: The Due Diligence Review

How can New Tech make the due diligence process go smoothly?

Buffet's due diligence process will include a review of New Tech's management and financial situation, an analysis of the market and competitive environment, and a technical examination of New Tech's products.

Financials and Management

Buffet will be using Numbers & Co., a major accounting firm, to assist with the process. Grant suggests that Elizabeth speak with the staff at Numbers and have them send her their due diligence program. The program specifies how many days Numbers is planning to be on site at New Tech, the focus of their activities in the morning and the afternoon of each day, and specific information New Tech could pull together in advance to make the process more productive. Elizabeth contacts Numbers and not only does the company forward its work plan, but meets with her in advance to confirm details.

Grant also warns Elizabeth that she should ensure that the management team is going to be in town during the due diligence review. Numbers will likely require input from each manager.

Numbers requests and reviews the following information:

- New Tech's financial statements for the last three years;
- three years of income tax returns and payment schedules;
- details of banking arrangements;

- summary (and copies) of the main contracts in place (contracts, leases, patents, insurance policies, mortgage documents, sales or supply contracts, etc.);
- list of key customers with historical and projected sales data and order backlog, if available;
- additional industry information on the computer power module market and related technology;
- list of suppliers and backup suppliers (if part of the needs is a speciality product or service);
- returns and warranty data to assess the quality of the product and to assess any contingent liabilities related to the products;
- recent appraisals of tangible assets;
- an organization chart;
- corporate minute books and documents (e.g. articles of incorporation, by-laws);
- a summary of all outstanding or pending litigation with an accompanying letter from the company's lawyer explaining the expected outcome of each lawsuit; and
- historical and future budgets along with actual figures (which will be required to assess management's ability to produce accurate forecasts and to determine future expectations).

Technical Review

Buffet sends Egor Krincz, a renowned computer module specialist, to examine the technical specifications of the modules and to interview the engineers. The engineers are expecting him and prepared to show Krincz what he needs. They build a rapport and provide information willingly. At one point, the due diligence review almost comes to a halt after Krincz thinks he has discovered a flaw in the modules' operating system. After intensive discussions with the engineers, he is satisfied there is no flaw.

Markets and Competition

Buffet also conducts an extensive review of the market opportunity for the computer modules by examining industry data he and New Tech gathered, speaking with others in the industry and doing further research on the competitors. He also relates these data to New Tech's forecasts to determine if the sales projections for the modules appear reasonable.

The Solution: Future Growth

The deal is closed, but what does the future hold?
--

The Deal Closes

Other than the delay caused by the technical assessment, the due diligence review takes four days on site and is completed at the office of Numbers. Buffet calls Stuart to

congratulate him and his management team on the professional way they handled the process.

The closing takes place the following week at the offices of Buffet's solicitors with Tony, Stuart and Elizabeth in attendance. Stuart says he has never signed so many documents, but he is pleased to endorse the \$600,000 cheque.

The Partnership Begins

Months after the deal closes, the management team meets to reflect on the relationship with Buffet. The team believes one of the most important factors that makes the relationship work is open communication. Buffet is copied not only on monthly financial reports, but on key memoranda as well. He is a key player when the management team meets to formulate their strategic plan. His experience in growing small companies is invaluable; he often points out alternative strategies that expand Stuart's horizons. At the same time, New Tech does not always accept everything Buffet suggests, and he is pleased to be challenged.

What New Tech Learned

The good news is that New Tech has reached one finish line. The better news is it has embarked on a whole new journey in partnership with an investor who can help it to realize its growth opportunity. In closing the deal, New Tech has learned:

- investors conduct their own comprehensive due diligence review as the deal approaches a close;
- to be prepared more than ever for the due diligence review;
- it can also check investors' personal and professional references;
- the importance of legal counsel and other close advisors while closing the deal;
- investors can often contribute to the success of the business through contacts, strong skills, knowledge and experience; and
- investors will take an interest in how their investment is being managed.

Appendix - New Tech Case Story

Take a Closer Look - New Tech's Financial Statements (see sections in Step 1)

Income Statements

New Tech is planning to add a new product line. The income statements show New Tech's actual performance for 2000 and projected 2001 and 2002 results. As you can see, the company realized \$3 million in sales revenue in 2000 and will launch a new product line in 2001 that needs additional funding for working capital and to buy capital assets.

In 2001, the new product line will generate a \$900,000 increase in sales revenue, or 30% over 2000. But there's little change in income after taxes (\$204,000 in 2000 versus \$205,000 in 2001), which reflects the company's extensive additional expenses, particularly marketing costs (see advertising and special promotional program expenditure lines), research and development, and other related expenses to produce, launch and sell the new product line.

New Tech Distributors Corp. Income Statements

(\$000)	2000 Actual	2001 Forecast	2002 Forecast
Sales revenue	3,000	3,900	4,700
Cost of goods sold			
Purchases	610	710	800
Freight in	60	70	85
Labour	380	480	510
Depreciation and amortization	110	175	195
Utilities, insurance, etc.	<u>25</u>	<u>30</u>	<u>35</u>
Total cost of goods sold	1,185	1,465	1,625
Gross margin	1,815	2,435	3,075
Selling expenses			
Salaries	620	780	820
Commissions	60	80	110
Travelling	60	90	115
Advertising	70	100	105
Depreciation and amortization	30	50	70
Special promotional program	<u>17</u>	<u>220</u>	<u>100</u>
Total selling expenses	857	1,320	1,320

Administrative expenses				
	Salaries	395	420	465
Leasing		50	70	90
	Depreciation and amortization	60	100	110
	Research and development	<u>50</u>	<u>100</u>	<u>100</u>
Total administrative expenses		555	690	765
Total operating costs		1,412	2,010	2,085
Operating income		403	425	990
	Interest income	5	6	8
	Interest charges	95	115	155
	Extraordinary expense	<u>0</u>	<u>0</u>	<u>0</u>
Income before taxes		313	316	843
	Income taxes	<u>109</u>	<u>111</u>	<u>295</u>
Income after taxes		204	205	548

Statements of Retained Earnings

As you can see in the statements of retained earnings, the company accumulated \$500,000 at the beginning of 2000, with \$204,000 in earnings (income after taxes) added by the end of the year. In that same year, \$50,000 in dividends was paid to the shareholders. By the end of 2001, the company will have accumulated \$839,000 in retained earnings, which is expected to increase to \$1,277,000 by the end of 2002.

Retained earnings are important for this analysis since this money (internal sources of funds) is used to fund growth (working capital) and buy fixed assets (equipment, machinery, etc.).

Note that the retained earnings (end of year) amount shown on this statement is brought forward to the balance sheet under the heading "Owners' equity".

New Tech Distributors Corp. Statements of Retained Earnings

(\$000)	2000 Actual	2001 Forecast	2002 Forecast
Retained earnings (beginning of year)	500	654	839
Net earnings for the year	<u>204</u>	<u>205</u>	<u>548</u>
Subtotal	704	859	1,387
Dividends	<u>50</u>	<u>20</u>	<u>110</u>
Retained earnings (end of year)	654	839	1,227

Balance Sheets

The balance sheets show New Tech's financial structure, that is, what it owns (assets) and what it owes its lenders (liabilities) and shareholders (owners' equity). During 2000, New Tech's total assets will increase by \$1,049,000 for a substantial 43.7% growth. This reflects the additional finances needed to launch the new product line.

As you can see, total current assets (accounts receivable, inventories, etc.) will increase by \$274,000, or 24.1%, while gross fixed assets will show a \$1,100,000 increment, or 62%. This reflects the acquisition of new fixed assets to produce the new line of products.

New Tech Distributors Corp. Balance Sheets

(\$000)	2000 Actual	2001 Forecast	2002 Forecast
Assets			
Current assets			
Cast	20	30	45
Marketable securities	100	110	120
Prepaid expenses	60	70	80
Accounts Receivable	450	550	650
Inventory	350	425	475
Other assets	70	103	120
Supplies, etc.	<u>84</u>	<u>120</u>	<u>140</u>
Total current assets	1,134	1,408	1,630
Capital assets			
Gross capital assets	1,775	2,875	3,615
Accumulated depreciation	<u>560</u>	<u>885</u>	<u>1,260</u>
Total net capital assets	1,215	1,990	2,355
Goodwill	45	45	45
Other assets	<u>5</u>	<u>5</u>	<u>7</u>
Total assets	2,399	3,448	4,037
Current liabilities			
Accounts payable	550	600	650
Term loan	125	140	170
Working capital loan	50	59	150
Accruals	60	50	80
Current portion of long-term debt	<u>30</u>	<u>30</u>	<u>30</u>
Total current liabilities	815	879	1,080
Total long-term debts	<u>400</u>	<u>600</u>	<u>550</u>
Total liabilities	1,215	1,479	1,630

Owners' equity				
	Capital shares	530	1 130	1 130
	Retained earnings	<u>654</u>	<u>839</u>	<u>1 277</u>
Total owner's equity		1 184	1 969	2 407
Total liabilities and owners' equity		2 399	3 448	4 037

Lower Portion of the Balance Sheet

The lower portion shows the sources of the funds. Total current liabilities (accounts payable, term loan, etc.) will increase by only \$64,000, or 7.8%. These short-term sources will be used to finance the current asset accounts (i.e. receivables and inventory).

Long-Term Liabilities

The long-term portion of the liabilities will show a \$200,000 increase, or 50%, while shareholders will invest an additional \$600,000 for an increase of 132%. Retained earnings (income earned for the year) will increase by \$185,000, or 28%.

The largest increase from external financing will come from shareholders. This amount reflects how much money will have to be invested in the business by the existing owners and risk capital investors.

Prognosis

This opportunity is too risky for conventional lenders to invest substantial amounts in the new product line; equity funds will have to be injected into New Tech to launch the new product line.

Cash Flow Forecasts

New Tech's cash flow forecasts show that both internal and external sources will be used to finance the company's future growth. In the first year, the business itself (internal sources) will provide \$330,000, and investors (financing activities) will provide \$780,000. The funds will be used to buy fixed assets of \$1,100,000, with another \$10,000 coming from the company's cash account.

New Tech Distributors Corp.		
Cash Flow Forecasts		
(\$000)	2000 Actual	2001 Forecast
Operating activities		
Income after taxes	205	548
Depreciation and amortization	325	375
Working capital changes	<u>-200</u>	<u>-6</u>
Operating cash flows	330	917
Financing activities		
Capital shares	600	0
Long-term debts	200	-50
Dividends	<u>-20</u>	<u>-110</u>
Cash flow from financing activities	780	-160

Investing activities		
Capital assets additions	-1,100	-742
Cash bank balance	-10	-15,000
Net cash flow	0	0

Statements of Changes in Financial Position

The statements of changes in financial position show the sources and uses of funds grouped in three categories:

Operating activities - internal sources;
 Financing activities - external sources of funds; and
 Investing activities - where funds will be spent.

New Tech Distributors Corp. Statements of Changes in Financial Position

(\$000)	2001 Forecast	Total	2002 Forecast	Total
Operating activities				
Income after taxes	205		548	
Depreciation and amortization	325		375	
Marketable securities	-10		-10	
Prepaid expenses	-10		-10	
Accounts receivable	-100		-100	
Inventory	-75		-50	
Other assets	-33		-17	
Supplies, etc.	-36		-20	
Accounts payable	50		50	
Term loan	15		30	
Working capital loan	9		91	
Accruals	-10		30	
Current portion of long-term debt	<u>0</u>		<u>0</u>	
Total operating activities		330		917
Financing activities				
Capital shares	600		0	
Total long-term debts	200		-50	
Dividends	<u>-20</u>		<u>-110</u>	
Total financing activities		780		-160
Investing activities				
Gross capital assets	-1,100		-740	
Goodwill	0		0	
Other assets	0		-2	
Adjustment	<u>0</u>		<u>0</u>	

Total investing activities		-1,100		-742
Increase (Decrease)	-10	-10	-15	-15
Cash — Beginning of year	20		30	
Cash — End of year	30		45	
Total — Net cash flow		0		0

Financial Ratios

The way to define and measure a company's targets is with financial ratios. Financial ratios are used to see how a firm is doing, the way a doctor uses medical tests to assess a patient's health. Here are some samples from our case example firm, New Tech Distributors Corp.

Financial ratios can be grouped under four categories:

- Liquidity
- Leverage
- Management
- Profitability

Liquidity Ratios

Does the company have sufficient cash and near cash to pay its bills and payroll on time? Basically, liquidity ratios indicate the company's ability to discharge its current obligations in times of stress.

	2000 Actual	2001 Forecast	2002 Forecast
Liquidity Ratios			
Working capital (\$000s)	319	529	550
Current ratio (times)	1.39	1.60	1.51
Cash ratio (times)	0.15	0.16	0.15
Quick ratio (times)	0.96	1.12	1.07
Working capital turnover (times)	9.40	7.37	8.55

Leverage Ratios

What is the proportion of a company's debt versus equity? These ratios display the methods and sources of financing used in acquiring assets and their impact on the earnings available to shareholders.

	2000 Actual	2001 Forecast	2002 Forecast
Leverage Ratios			
Debt to total assets (percent)	50.65%	42.89%	40.38%
Debt to equity (times)	1.03	0.75	0.68
Times interest earned (times)	4.29	3.75	6.44
Fixed charges coverage ratio (times)	3.06	2.71	4.44

Management Ratios

How efficiently is the management team using the company's assets to generate sales and profits? These ratios are useful in tracking the performance of managers in charge of specific operating functions such as production, marketing, inventories, accounts receivable or cash.

	2000 Actual	2001 Forecast	2002 Forecast
Management Ratios			
Average collection period (days)	54.75	51.47	50.48
Accounts receivable turnover (times)	6.67	7.09	7.23
Inventory turnover (times)	3.39	3.45	3.42
Day's sales to inventory (days)	108	106	107
Fixed assets turnover (times)	2.47	1.96	2.00
Total assets turnover (times)	1.25	1.13	1.16

Profitability Ratios

Is the business generating a sufficient return on its investments? These ratios show the relationship between profit and revenue generated, resources employed (assets) and shareholders' equity.

	2000 Actual	2001 Forecast	2002 Forecast
Profitability Ratios			
Gross margin to sales (percent)	60.50%	62.44%	65.43%
Operating income sales (percent)	13.43%	10.90%	21.06%
Income after taxes to sales (percent)	6.80%	5.26%	11.66%
Return on total assets (percent)	8.50%	5.95%	13.57%
Return on invested capital (percent)	12.88%	7.98%	18.53%
Return on equity (percent)	17.23%	10.41%	22.77%

New Tech's Key Assumptions

This is a list of the most important quantitative assumptions that New Tech used to develop its financial projections. The figures relating to sales and expenses are derived from the income statements. Other assumptions have to do with external factors (such as income tax and interest rates) and key ratios (such as inventory turnover).

New Tech Distributors Corp.
Key Assumptions (Base Case)

	2000 Actual	2001 Forecast	2002 Forecast
Sales revenue	\$3,000,000	\$3,900,000	\$4,700,000
Annual sales growth (%)	15.0%	30.0%	20.5%
Sustainable growth (%)	14.95%	10.37%	22.24%
Financial health score (Z score)	2.93	2.86	3.47
Gross margin (% of sales)	61.0%	62.0%	65.0%
Selling expenses (% of sales)	29.0%	34.0%	28.0%
General and adm. expenses	\$445,000	\$490,000	\$555,000
Research and development expenses	\$50,000	\$100,000	\$100,000
Depreciation and amortization	\$200,000	\$325,000	\$375,000
<hr/>			
Income taxes and research development tax credits			
Income tax rate	35.0%	35.0%	35.0%
Research and development expenses	\$50,000	\$100,000	\$100,000
Investment tax credit rate	35.0%	35.0%	35.0%
SR&D credit (cash refund)	\$17,500	\$35,000	\$35,000
Net research and development expenses	\$32,500	\$65,000	\$65,000
<hr/>			
Balance sheet/working capital			
Average collection period (days)	54.75	51.47	50.48
Inventory turnover (times)	3.39	3.45	3.42
Average payment period (days)	30	28	27
Fixed assets addition	\$200,000	\$1,100,000	\$740,000
<hr/>			
Interest rates			
Working capital loan	7.0%	7.0%	7.0%
Excess cash and marketable securities	4.0%	4.0%	4.0%
Term loan	10.0%	10.0%	10.0%

New Tech's Monthly Cash Budget

Here's an example of a monthly cash budget for our case example firm, New Tech Distributors.

Receipts and Disbursements Are Key

New Tech identified these receipts and disbursements for each month:

- all future receipts from cash sales and collections; and
- all cash disbursements for individual expenses.

Items to Consider

New Tech considered the following items in preparing their cash budget:

- percentage of cash sales;
- accounts receivable collection - % 30 days, % 60 days, % 90 days, % bad debts;
- seasonal pattern of sales;
- payment policy/experience (e.g. within 30 days);
- pattern of ordering supplies; and
- other cash receipts/disbursements (wages, interest, taxes, etc.).

	Oct.	Nov.	Dec.
Sales revenue (previous year)	325.0	325.0	325.0
Purchases			59.2
Payment schedule			
Cash sales=10%	10%		
30-day payment=70%	70%		
60-day payment=20%	20%		
Purchase schedule			
Paid in first month=40%	40%		
Paid during second 60 days=60%	60%		

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Sales revenue	325	300	275	325	350	375	400	375	350	300	275	250	3,900
Cash sales	33	30	28	33	35	38	40	38	35	30	28	25	390
30-payment =70%	228	228	210	193	228	245	263	280	263	245	210	193	2,783
60-payment =20%	<u>65</u>	<u>65</u>	<u>65</u>	<u>60</u>	<u>55</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>75</u>	<u>70</u>	<u>60</u>	805
Total monthly receipts	325	323	303	285	318	348	373	393	378	350	308	278	
Purchases	59,0	59,2	59,2	59,2	59,2	59,2	59,2	59,2	59,2	59,2	59,2	59,2	710
Paid during first month =40%	24	24	24	24	24	24	24	24	24	24	24	24	284
Paid during second 60 days =60%	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	<u>36</u>	426
Total monthly purchases	50.0	45.0	50.0	55.0	80.0	75.0	72.0	60.0	58.0	55.0	50.0	60.0	710
Total receipts	325	323	303	285	318	348	373	393	378	350	308	278	3,978
Disbursements													
Purchases	50	45	50	55	80	75	72	60	58	55	50	60	710
Freight in	4.2	4.0	5.1	5.4	7.3	6.5	6.7	6.6	6.1	7.0	5.8	5.7	70

Labour	40.0	39.0	38.0	42.0	38.4	44.3	42.5	41.0	38.0	39.0	39.5	38.0	480
Utilities, insurance, etc.	2.5	2.2	2.4	2.5	2.5	2.8	2.7	2.5	2.6	2.6	2.6	2.4	30
Salaries — selling	60.0	62.0	65.8	62.8	62.7	67.9	71.6	62.8	64.9	66.9	68.0	65.0	780
Commissions	5.9	5.0	5.8	6.8	6.9	7.4	8.0	7.8	6.5	6.8	6.4	6.4	80
Travelling	7.0	7.1	6.9	6.8	7.6	7.8	8.4	7.5	7.7	7.7	7.9	7.4	90
Advertising	6.0	6.5	7.0	9.0	8.5	8.7	8.3	8.1	7.0	7.2	6.0	7.5	90
Other charges — selling	5.0	6.0	3.0	40.0	50.0	21.5	18.3	18.7	18.9	16.0	8.5	14.0	220
Salaries — administration	35.0	35.0	34.0	33.0	36.0	36.0	38.0	39.0	35.0	33.0	32.0	34.0	420
Leasing	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	70
Research and development	8.3	10.3	15.6	7.5	8.3	7.7	7.9	6.2	6.7	6.9	6.3	8.3	100
Interest income	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-6
Interest charges	9.4	9.6	9.7	9.5	9.6	9.8	9.8	9.5	9.6	9.8	9.5	9.5	115
Taxes	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	112
Purchase of assets	<u>40</u>	<u>45</u>	<u>33</u>	<u>350</u>	<u>500</u>	<u>16.8</u>	<u>23.8</u>	<u>23</u>	<u>18</u>	<u>20</u>	<u>20</u>	<u>10</u>	<u>1100</u>
Total disbursements	288	291	291	645	832	327	333	307	294	293	277	283	4,461
Surplus (-) / month	37	31	12	-360	-515	20	40	85	84	58	30	-5	
Surplus (-) / cumulative	37	68	80	-280	-795	-775	-735	-650	-566	-508	-478	-483	
Beginning bank balance	20	57	88	100	-260	-775	-755	-715	-630	-546	-488	-458	
Receipts	325	323	303	285	318	348	373	393	378	350	308	278	
Disbursements	<u>288</u>	<u>291</u>	<u>291</u>	<u>645</u>	<u>832</u>	<u>327</u>	<u>333</u>	<u>307</u>	<u>294</u>	<u>293</u>	<u>277</u>	<u>283</u>	
Ending bank balance	57	88	100	-260	-775	-755	-715	-630	-546	-488	-458	-463	
Long-term financing													
Debt	10.0	20.0	20.0	60.0	50.0	8.0	20.0	6.0	4.0	2.0	0.0	0.0	200
Equity	<u>10.0</u>	<u>20.0</u>	<u>50.0</u>	<u>200</u>	<u>250</u>	<u>44.4</u>	<u>10.0</u>	<u>5.0</u>	<u>5.0</u>	<u>4.0</u>	<u>2.0</u>	<u>0.0</u>	<u>600</u>
Total	20.0	40.0	70.0	260	300	52.4	30.0	11.0	9.0	6.0	2.0	0.0	800
Cash flow after financing													
Monthly	<u>57</u>	<u>71</u>	<u>82</u>	<u>-100</u>	<u>-215</u>	<u>73</u>	<u>70</u>	<u>96</u>	<u>93</u>	<u>64</u>	<u>32</u>	<u>-5</u>	
Cumulative	<u>37</u>	<u>108</u>	<u>190</u>	<u>90</u>	<u>-125</u>	<u>-52</u>	<u>18</u>	<u>114</u>	<u>207</u>	<u>270</u>	<u>303</u>	<u>297</u>	

New Tech's Sensitivity Analysis

New Tech Distributors Corp. Sensitivity Analysis

<i>Base case</i>	2000	2001	2002
	Actual	Forecast	Forecast
Sales revenue (\$)	3,000,000	3,900,000	4,700,000
Gross margin (\$)	1,815,000	2,435,000	3,075,000
Operating income (\$)	403,000	425,000	990,000
Income after taxes (\$)	204,000	205,000	\$548,000
Income after taxes to sales (%)	6.80	5.26	11.66
Return on total assets (%)	8.5	5.95	13.57
Economic value added (\$)	71,000	-28,000	247,000
Sustainable growth rate (%)	14.95	10.37	22.24
Financial health score (Z score)	2.93	2.86	3.47

Scenario A

Sales revenue decrease by 5%

Sales revenue (\$)	3,000,000	3,705,000	4,465,000
Gross margin (\$)	1,815,000	2,314,000	2,896,000
Operating income (\$)	403,000	310,000	831,000
Income after taxes (\$)	204,500	131,000	445,000
Income after taxes to sales (%)	6.80	3.53	9.96
Return on total assets (%)	8.50	3.79	11.03
Economic value added (\$)	71,500	-93,000	168,000
Sustainable growth rate (%)	14.95	6.07	16.76
Financial health score (Z score)	2.93	2.63	3.15

Scenario B

Sales revenue decrease by 10%

Sales revenue (\$)	3,000,000	3,510,000	4,230,000
Gross margin (\$)	1,815,000	2,182,000	2,731,000
Operating income (\$)	403,000	182,000	671,000
Income after taxes (\$)	204,500	47,000	341,000
Income after taxes to sales (%)	6.80	1.34	8.06
Return on total assets (%)	8.50	1.37	8.44
Economic value added (\$)	71,500	-166,000	88,000
Sustainable growth rate (%)	14.95	1.45	11.46
Financial health score (Z score)	2.93	2.39	2.83

New Tech's Break-Even Analysis

Calculating the break-even point can be simple (for a one-product business) or complex (for a multi-line business), but the basic technique is the same. Here is an example from our case study company, New Tech Distributors.

The break-even point is based on the fact that some costs vary in direct proportion to the volume of production, while others remain fixed regardless of the level of output.

Variable costs include: direct labour and direct material expenses for manufacturing or service organizations, and cost of goods sold (purchases) for retail establishments.

Fixed costs refer to items such as rent, office salaries, interest and insurance.

New Tech Distributors Corp.				
Break-even Analysis				
(\$)	2000	2001	2002	
	Actual	Forecast	Forecast	
Sales revenue	3,000,000	3,900,000	4,700,000	
Variable costs				
Purchases	610,000	710,000	800,000	
Freight in	60,000	70,000	85,000	
Labour (cost of goods sold)	300,000	390,000	410,000	
Commissions	<u>60,000</u>	<u>80,000</u>	<u>110,000</u>	
Total variable costs	<u>1,030,000</u>	<u>1,250,000</u>	<u>1,405,000</u>	
Contribution margin	1,970,000	2,650,000	3,295,000	
Fixed costs				
Labour (cost of goods sold)	80,000	90,000	100,000	
Depreciation and amortization	200,000	325,000	375,000	
Utilities, insurance, etc.	25,000	30,000	35,000	
Salaries (selling)	620,000	780,000	820,000	
Travelling	60,000	90,000	115,000	
Advertising	70,000	100,000	105,000	
Other charges (selling)	17,000	220,000	100,000	
Salaries (administration)	395,000	420,000	465,000	
Leasing	50,000	70,000	90,000	
Research and development	50,000	100,000	100,000	
Interest charges (net)	<u>90,000</u>	<u>109,000</u>	<u>147,000</u>	
Total fixed costs	<u>1,657,000</u>	<u>2,334,000</u>	<u>2,452,000</u>	
Profit (loss)	313,000	316,000	843,000	
Profit/volume ratio	0.66	0.68	0.70	
Break-even point (in revenue)	2,523,350	3,343,943	3,497,542	
% of sales revenue	84.1%	88.1%	74.4%	

Assets	\$2,399,000	\$3,448,000	\$4,037,000
Before taxes			
Income before taxes	\$313,000	\$316,000	\$843,000
Return on total assets	13.0%	9.2%	20.9%
After taxes			
Income after taxes	\$204,000	\$205,000	\$548,000
Return on total assets	8.5%	6.0%	13.6%
Before tax objective			
To earn a return on assets of...		15.0%	25.0%
your income before taxes should be...		\$517,000	\$1,009,000
and your sales revenue should be...		\$4,195,811	\$4,936,783

Financial Needs and Financing Requirements

New Tech Distributors Corp. Financial Needs and Financing Requirements

(\$)	Uses <i>Financial Needs</i>	Sources <i>Financing Requirements</i>
Short-term needs/requirements		
<i>Working capital accounts</i>		
Accounts receivable	100,000	
Inventory	75,000	
Accounts payable		50,000
<i>Other working capital accounts</i>		
Marketable securities	10,000	
Prepaid expenses	10,000	
Other assets	33,000	
Supplies, etc.	36,000	
Accruals	10,000	
<i>Conventional financing</i>		
Term loan		15,000
Working capital loan		<u>9,000</u>
Total short-term financing Needs/requirements	274,000	74,000
Long-term needs/requirements		
Capital assets (needs)	1,100,000	
<i>External sources</i>		
Dividends	20,000	
Equity		600,000

Long-term debt		200,000
Total long-term needs/requirements	1,120,000	800,000
<i>Internal sources</i>		
Increase in the cash account	10,000	
Income after taxes		205,000
Depreciation and amortization		325,000
Total internal sources	10,000	530,000
Total needs/requirements	1,404,000	1,404,000
Marketing costs and cushion	171,000	* 171,000
	1,575,000	1,575,000

* The \$275,000 before-tax marketing costs and cushion will be financed by internally generated funds and has been included as expenses in the 2001 income statement. On an after-tax basis, these costs amount to \$171,000.

Take a Closer Look – New Tech’s Discounted Cash Flow Calculations (see sections in Step 3)

There are four steps in the calculation of New Tech's discounted cash flows. The first three give the company's value and the last one the return on investment.

1. Determining Discounted Cash Flow
2. Calculating Discounted Residual Value
3. Determining the Estimated Market Value
4. Calculating the Investor’s Return

1) Determining Discounted Cash Flow

Here are the basic tasks New Tech's financial advisor went through to calculate the discounted cash flows:

- Start with the forecasted cash flows.
- Choose a discount rate based on the estimated rate of return investors will expect, and economic, industry and company-specific risks.
- Discount the cash flows to their present value using the discount rate factor for each year.

New Tech's Numbers

As you can see in the table below ([New Tech's after-tax cash flow](#)), New Tech's after-tax cash flow from operations increases from \$530,000 in 2000 (the year the new product line is introduced) to \$2,308,000 by 2005. After adding the investments in capital assets and working capital to the after-tax cash flow from operations, New Tech would show:

- a negative \$695,000 cash flow in 2000; and
- positive cash flow between 2001 (\$83,000) and 2005 (\$468,000).

These discretionary after-tax cash flows are then discounted to their present values using the discount rate of 20%. (See the discount factors used for each year to calculate the present value amounts between years 2002 and 2005.) As shown, the projected cash flow loses more value as we reach the end of the forecast period because it is discounted for a longer time.

Present Value for the Five-Year Forecast

The present value of the cash flow for each year is then added to determine present value over the five years. The present value for the five-year forecast, using a 20% discount rate, will be $(-579,000 + 58,000 + 87,000 + 99,000 + 188,000) = -\$147,000$.

New Tech Distributors Corp. After-tax Cash Flow

(\$000s)	2000	2001	2002	2003	2004	2005
	Actual	Forecast	Forecast	Forecast	Forecast	Forecast
Sales revenue	<u>3,000</u>	<u>3,900</u>	<u>4,700</u>	<u>5,800</u>	<u>6,700</u>	<u>7,700</u>
Cost of goods sold	<u>1,185</u>	<u>1,465</u>	<u>1,625</u>	<u>1,855</u>	<u>2,048</u>	<u>2,275</u>
Gross margin	<u>1,815</u>	<u>2,435</u>	<u>3,075</u>	<u>3,945</u>	<u>4,652</u>	<u>5,425</u>
Operating expenses						
Selling expenses	857	1,320	1,320	1,380	1,475	1,545
Administrative expenses	<u>555</u>	<u>690</u>	<u>765</u>	<u>820</u>	<u>890</u>	<u>960</u>
Total operating expenses	<u>1,412</u>	<u>2,010</u>	<u>2,085</u>	<u>2,200</u>	<u>2,365</u>	<u>2,505</u>
Operating income	403	425	990	1,745	2,287	2,920
Other expenses	<u>90</u>	<u>109</u>	<u>147</u>	<u>145</u>	<u>150</u>	<u>150</u>
Income before taxes	313	316	843	1,600	2,137	2,770
Income taxes	<u>109</u>	<u>111</u>	<u>295</u>	<u>554</u>	<u>736</u>	<u>952</u>
Income after taxes	204	205	548	1,046	1,401	1,818
Add back: depreciation and amortization		325	375	400	430	490
Interest ¹		<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Cash flow from operations		530	923	1,146	1,831	2,308
Capital spending		-1,100	-740	-785	-1,100	-1,600
Incremental working capital ²		<u>-125</u>	<u>-100</u>	<u>-210</u>	<u>-525</u>	<u>-240</u>
Total additional investments		<u>-1,225</u>	<u>-840</u>	<u>-995</u>	<u>-1,625</u>	<u>-1,840</u>
Cash flow with additional investments		-695	83	151	206	468
Discount rate factor (20%)		0.83333	0.69444	0.57870	0.48225	0.40188
Annual discounted cash flows		-579	58	87	99	188
Total present value for the five years		<u>-147</u>				
Incremental working capital						
Accounts receivable	450	550	650	750	900	1,050
Inventory	<u>350</u>	<u>425</u>	<u>475</u>	<u>560</u>	<u>700</u>	<u>790</u>
Total	800	975	1,125	1,310	1,600	1,840
Less: Accounts payable	<u>550</u>	<u>600</u>	<u>650</u>	<u>625</u>	<u>390</u>	<u>390</u>
Net increase in working capital for year	250	375	475	685	1,210	1,450
Previous year's working capital		<u>250</u>	<u>375</u>	<u>475</u>	<u>685</u>	<u>1,210</u>
Incremental working capital		125	100	210	525	240

1. No interest add back as it is assumed no adjustment for leverage is required.

2. Working capital increment is made up of (accounts receivable + inventory) — accounts payable. See detailed calculation of the net working capital increments in the lower portion of the exhibit.

2) Calculating the Discounted Residual Value

Here are the basic tasks New Tech's financial advisor went through to calculate the company's residual value at the end of the forecast period and convert that value to current or present value:

- Use the cash flow from the final year of the forecast period. (Assume that this level of earnings can be sustained into the future.)
- Capitalize this cash flow (cash flow divided by capitalization rate) at a rate of 18%.
- Then, discount the cash flow back at 20% to determine its present value.

New Tech's Numbers

The calculations consider the cash flow for the last year of the forecast period (after any taxes and capital spending) to be a maintainable after-tax cash flow. It's assumed here that New Tech will remain at the 2006 level of operations, generating a steady yearly cash flow from operations of \$2,308,000. When income tax and ongoing capital spending is deducted, the maintainable cash flow is \$1,308,000.

The residual value is calculated by dividing the maintainable after-tax cash flow (\$1,308,000) by the capitalization rate of 18% (20% discount rate minus 2% adjustment for inflation, growth and risk). From this calculation, we see that New Tech's residual value amounts to \$7,267,000. This is equivalent to saying that, assuming an 18% rate of return, a company with cash flows of \$1.3 million is worth \$7.3 million - a cash flow is transformed into a capital value.

The present, or discounted, value of the \$7,267,000 is calculated by using the same 20% discount rate as before. The present value of the residual value would be \$2,920,000.

New Tech Distributors Corp. Projected Residual Value

(\$000s)	2005 Forecast
Sales revenue	7,700
Total cost of goods sold	<u>2,275</u>
Gross margin	5,425
Operating expenses	
Selling expenses	1,545
Administrative expenses	<u>960</u>
Total operating expenses	<u>2,505</u>
Operating income	2,920
Other expenses	<u>150</u>
Income before taxes	2,770
Income taxes	<u>952</u>
Income after taxes	1,818
Add back: depreciation and amortization	<u>490</u>

Interest ¹	-
Cash flow from operations	2,308
Sustainable capital spending ²	-1,000
Incremental working capital ³	-
Total additional investments	<u>-1,000</u>
Cash flow with increased investments	1,308
Divided by capitalization rate (20% - 2%) ⁴	18%
Residual value	7,267
Present value factor at 20%	0.40188
Present value of residual value	2,920

Shaded figures are drawn from After-tax Cash Flow calculations.

1. No interest add back necessary as it is assumed that no adjustment for leverage is required.
2. Capital spending represents the amount New Tech would have to spend each year to maintain operations at levels equal to the last year of the forecast.
3. No increase in working capital is required as it is assumed that the company will remain at this level of operations, generating a steady cash flow of \$2,308,000.
4. Capitalization rate is equal to the discount rate used in Exhibit 2.4, less an estimated 2% adjustment for long-term rate of inflation.

3) Determining the Estimated Market Value

To calculate New Tech's estimated market value, its financial advisor simply does the following:

- Adds the discounted cash flow to the discounted residual value.
- Makes any adjustments required (such as adding back redundant assets and tax shields on existing assets on hand at the end of the forecast period).

New Tech's Numbers

As the table below indicates, New Tech's estimated market value is \$2,773,000, which reflects:

- New Tech's five-year after-tax discounted cash flow (- \$147,000 drawn from the after-tax cash flow table); plus
- its estimated residual value (\$2,920,000 drawn from the projected residual value calculation).

As shown in the exhibit, tax savings on existing assets and adjustments for existing debt and redundant assets are not applicable in the case of New Tech.

New Tech Distributors Corp. Projected Residual Value

(\$000s)	2005 Forecast
Present value of cash flow from operations	-147
Add residual value	2,920
Add estimated present value of tax savings on existing assets ¹	—
Add present value of losses carried forward	—
<hr/>	<hr/>
Total cash flow value	2,773
<hr/>	<hr/>
Less existing debt ²	—
<hr/>	<hr/>
	2,773
<hr/>	<hr/>
Add redundant assets ³	—
<hr/>	<hr/>
Estimated fair market value	2,773

1. Tax savings is based on capital cost allowance, which may be claimed on the existing assets in the final year of the forecast period.

2. No adjustment required as capital structure assumed to be optimal.

3. Redundant assets refer to those assets that are not required in the day-to-day operation of the business.

4) Calculating the Investor's Return

Here's how New Tech's financial advisor calculated an investor's rate of return:

- Assume the investment will be realized by an initial public offering (IPO) of New Tech shares.
- Determine the total value of the company at exit (IPO) by multiplying the final year's cash flow by a multiple. (This multiple is subjectively determined based on the expected market conditions.)
- Find the investor's share of the exit value.
- Calculate the rate of return using the initial investment and the cash flow to the investor at exit.
- Perform similar calculations to determine after-tax return.

New Tech's Numbers

As the table below indicates, the risk capital investor has invested \$600,000 in New Tech. (It is assumed here that the \$600,000 would be injected during the early part of 2002, say in January.)

The advisor judges that, given expected market conditions in five years, a 12.5% multiple is appropriate. So he takes the inverse of 12.5%, which is 8, to be used as the earnings multiple. By using the 8 times earnings multiple, the company's expected \$1,308,000 cash flow is estimated to be \$10,464,000 at exit.

It is assumed that the risk capital investor will have a 40% share in the company, which represents \$4,186,000.

Before Tax

A present value of \$4,186,000 with an initial investment of \$600,000 is calculated to be a 47.5% return to the investor. This discount rate would therefore be considered the investor's before-tax internal rate of return (IRR). This is equivalent to the compound interest rate the investor would earn. This return can be increased to satisfy the investor if the business owner is willing to relinquish more ownership to the risk capital investor. For example, in the case of New Tech, the 40% participation could be increased to perhaps 45%.

After Tax

Similar calculations are done to determine the investor's return on an after-tax basis. The original \$600,000 investment is deducted from the cash proceeds, which would leave the investor with a capital gain on the investment of \$3,586,000. If the investor's taxable portion is estimated at 75%, this means that the taxable portion would be \$2,689,000. If the investor is in the 50% tax bracket, an after-tax amount of \$2,842,000 would be received. By using a 36.5% discount rate, the present value of the \$2,842,000 would be equivalent to the \$600,000 investment made by the risk capital investor. This discount rate would therefore be considered the investor's after-tax IRR.

New Tech Distributors Corp. Return on Investment Calculations to Investor Before Tax

(\$000s)	2001 Forecast	2002 Forecast	2003 Forecast	2004 Forecast	2005 Forecast
A. Before-tax rate of return					
Initial investment	-600	—	—	—	—
Cash distributions to shareholders ¹	—	—	—	—	—
Total value at exit					
After-tax cash flow ²					1,308
Multiple ³					8.0
Total value at exit	—	—	—	—	10,464
Investor's required share (40%)	—	—	—	—	4,186
Initial investment	<u>-600</u>	—	—	—	—
Total cash flows	-600	—	—	—	4,186
Before-tax return to investor⁴	47.5%				

1. Assumes that the investor will receive no other cash payments over the life of the investment.

2. Based on the after-tax cash flow from operations used for the residual value calculation in Exhibit 2.5.

3. Subjectively determined by the investor based on the expectation of market conditions at the time of exiting the investment (equivalent to capitalization rate of 12.5% give 1/8 times multiple).

4. Represents the before-tax internal rate of return (IRR) of the cash flows received by the investor.

New Tech Distributors Corp. Return on Investment Calculations to Investor After Tax

(\$000s)

B. After-tax rate of return

Proceeds received on exit	4,186
Initial investment	<u>-600</u>
Capital gain on investment	3,586
Taxable portion (75%) ^{1a}	<u>2,689</u>
Investor's tax payable (50%)	<u>1,344</u>
Gross proceeds received on exit	4,186
Investor's tax payable ^{2a}	<u>1,344</u>
Net after-tax proceeds to investor	2,842

	2001	2002	2003	2004	2005
	Forecast	Forecast	Forecast	Forecast	Forecast
Initial investment	-600	—	—	—	—
Net after-tax proceeds to investor		—	—	—	<u>2,842</u>
Total cash flows	<u>-600</u>				<u>2,842</u>
After-tax return to investor^{3a}	36.5%				

1a. Assumes that the investor will have full capital gains treatment of sale of shares at the time of the initial public offering.

2a. Assumes that the investor's marginal tax rate is 50%.

3a. Represents the after-tax internal rate of return (IRR).