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Using Debt to Fuel Value Creation

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Synopsis: It is uncommon for a business to be opportunity constrained. Often, the issue is not having high-return projects to invest in but choosing which to fund. This is a capital-constrained situation. Equally important is choosing how to fund those projects. The cheapest and most expedient option would be to use cash on hand, but this limits the possible pace of investments. When you have more opportunities than capital, do you forgo quality opportunities, raise equity, or arrange for more debt?

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Part A: Using Debt to Fuel Value Creation

Many business owners are averse to using debt to fund expansionary efforts. It can certainly be a risky proposition, especially if the difference between the cost of capital and the expected project return is slim. However, the typical business owner we speak to has a 2-year payback threshold when considering investing in a project. That equates to a nearly 50% compound annual return on capital (or internal rate of return, "IRR"). When you consider that the prime lending rate is typically in the 2-5% range, and banks frequently lend to private middle-market companies at pricing around prime plus 1-3%, it quickly becomes highly profitable to use debt to fund these projects.

Let's consider a situation where you have a company with the following characteristics:

Table 1: Sample Company Characteristics

Starting Inputs	000s
Revenue	20,000
EBITDA Margin	15.0%
Debt	
Amortization	5 years
Interest	7.0%
Equity	
EBITDA Multiple	6.0x

Under debt-free circumstances, this company's revenue grows at 5% per year as there is no capital available to fund significant expansion projects. With additional capital, however, the company can fund initiatives that will grow revenue by 15% per year, up from 5%. We'll consider a situation where $9 million in debt is required to fund this growth (of which 20% is paid down during Year 1). General assumptions for CAPEX, working capital, and taxes are used to arrive at a more realistic cash flow figure. Let's see what happens to the value of the company under both scenarios.

Table 2: Equity Value Growth of a Debt Free Company Growing at 5% Annually

Debt Free, 5% Growth	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	$20,000	$21,000	$22,050	$23,153	$24,310	$25,526
Margin	*15.0%*	*15.0%*	*15.0%*	*15.0%*	*15.0%*	*15.0%*
Growth Rate	*0.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
EBITDA	3,000	3,150	3,308	3,473	3,647	3,829
Multiple	6.0x	6.0x	6.0x	6.0x	6.0x	6.0x
Enterprise Value	18,000	18,900	19,845	20,837	21,879	22,973
Less: Debt	-	-	-	-	-	-
Plus: Cash	-	1,733	3,552	5,462	7,467	9,573
Equity Value	18,000	20,633	23,397	26,299	29,346	32,546

Now let's see what happens to the company that borrows to make the growth investment. We assume 7% interest, and that 100% of available cash flow is used to pay down debt.

Table 3: Equity Value Growth of a Company Using 3.0x Leverage to Grow at 15% Annually

3.0x Leverage, 15% Growth	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue	$20,000	$23,000	$26,450	$30,418	$34,980	$40,227
Margin	*15.0%*	*15.0%*	*15.0%*	*15.0%*	*15.0%*	*15.0%*
Growth Rate	*0.0%*	*15.0%*	*15.0%*	*15.0%*	*15.0%*	*15.0%*
EBITDA	3,000	3,450	3,968	4,563	5,247	6,034
Multiple	6.0x	6.0x	6.0x	6.0x	6.0x	6.0x
Enterprise Value	18,000	20,700	23,805	27,376	31,482	36,204
Less: Debt	-	7,031	4,526	1,387	-	-
Plus: Cash	-	-	-	-	1,809	5,128
Equity Value	18,000	13,669	19,279	25,989	33,291	41,332

The equity returns for each case are summarized in the table below. In this example, the company that borrows and invests in growth creates a $9 million shareholder value advantage over its debt-free, conservative counterpart.

Table 4: Equity Returns

Cash Flows	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Debt-Free	(18,000)	-	-	-	-	32,546
3.0x Leverage	(18,000)	-	-	-	-	41,332

IRR	
Debt-Free	*12.6%*
3.0x Leverage	*18.1%*

Even with the conservative assumption of this debt increasing growth by only an incremental 10% (a far cry from a two-year payback), the project funding scenario creates more value to shareholders than remaining debt free.

In addition, the interest rate has almost no impact on the equity returns to shareholders. In the leverage case, every 1% increase in the interest rate decreases IRR by 0.1% and decreases the equity value in year 5 by $157,000. To gain no benefit from taking on additional debt (to drive the growth rate higher) in the scenario described above, the interest rate has to be 29.9%. For a lender to charge this much to provide financing, they would have to perceive the business to be riskier than unsecured consumer credit cards.

Table 5: Impact of Interest on Equity Returns

Interest Rate	IRR	Exit EV
5.0%	*18.3%*	$41,625
7.5%	*18.0%*	41,255
10.0%	*17.8%*	40,841
12.5%	*17.5%*	40,378
15.0%	*17.2%*	39,861
30.0%	*12.5%*	32,392

Conversely, of course, if investing $9 million in a business fails to increase its growth, then the returns to shareholders will be lower, and taking on debt at higher interest rates can be risky for a business (i.e., cause covenant breaches). The minimum growth threshold to make this investment equivalent to the equity returns in the base case is 10.1%. The table below summarizes the impact growth has on value creation in the 3.0x leverage case.

Table 6: Impact of Growth Rate on Equity Returns

Leverage Case		
Growth Rate	IRR	Exit Equity
5.0%	*6.5%*	$22,973
10.0%	*12.4%*	28,989
15.0%	*18.1%*	36,204
20.0%	*23.6%*	44,790
No Leverage Case	*12.6%*	32,546

So, what impacts equity returns, if not interest? A leveraged buy-out ("LBO") analysis allows one to compare the effects of various factors on the returns of a project or acquisition. Under all cases, we are examining the aggregate equity returns for someone purchasing a hypothetical business at its current value using a mixture of debt and equity and selling it in five years. The table below shows a "base case" LBO analysis, using standard assumptions to calculate cash flows more accurately.

Table 7: Base Case LBO Analysis, 3.0x Leverage, 7% Interest

Base Case IRR	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
EBITDA	3,000	3,450	3,968	4,563	5,247	6,034
Working Capital		(460)	(529)	(608)	(700)	(805)
CAPEX		(460)	(529)	(608)	(700)	(805)
Debt Repayments		(1,969)	(2,505)	(3,139)	(1,387)	-
Interest		(561)	(405)	(207)	(49)	-
Taxes		-	-	-	(603)	(1,106)
FCF to Equity		-	-	-	1,809	3,319
EV						
EBITDA	3,000	3,450	3,968	4,563	5,247	6,034
Multiple	6.0x	6.0x	6.0x	6.0x	6.0x	6.0x
EV	18,000	20,700	23,805	27,376	31,482	36,204
Plus: Cash		-	-	-	1,809	5,128
Less: Debt	(9,000)	(7,031)	(4,526)	(1,387)	-	-
Equity Value	9,000	13,669	19,279	25,989	33,291	41,332
Purchase/Sale Price	(9,000)	-	-	-	-	41,332
IRR	*35.6%*					

In the following sensitivity tables, we apply the typical LBO analysis to examine the effects of interest rate, leverage, growth rate, and EBITDA margin on the equity returns. Leverage has a significant impact, significantly increasing the returns the more debt is used to complete the purchase, while

the interest rate on the debt has a very small impact. For example, assuming a 7.5% interest rate and 3.0x leverage, increasing leverage from 3.0x to 4.0x increases IRR from 35.6% to 44.8%, while decreasing interest rate from 7.5% to 5% increases the return from 35.6% to 35.8%, a minute increase.

Table 8: Impact of Leverage and Interest on Equity Returns

		Leverage				
		1.0x	2.0x	3.0x	4.0x	5.0x
Interest	2.5%	25.5%	29.9%	36.1%	45.8%	65.3%
	5.0%	25.5%	29.8%	35.8%	45.3%	64.4%
	7.5%	25.5%	29.7%	35.6%	44.8%	63.1%
	10.0%	25.4%	29.6%	35.3%	44.2%	61.5%
	12.5%	25.4%	29.5%	35.0%	43.5%	59.6%

As with total leverage, growth rate and EBITDA margins have a dramatic impact on returns (3.0x leverage is assumed for all cases).

Table 9: Impact of Growth Rate and EBITDA Margins on Equity Returns

		Growth Rate				
		5.0%	10.0%	15.0%	20.0%	25.0%
Margin	-5%	3.8%	12.3%	19.9%	26.9%	33.2%
	Flat	22.4%	29.1%	35.6%	42.0%	48.2%
	+5%	32.7%	39.4%	45.9%	52.3%	58.7%

We can quantify the incremental impact of each change, shown in the table below. Leverage and margins have the largest impact on equity returns, relative to the other factors. The figures below are absolute values, meaning if equity returns are 10%, and margins increase by 1%, equity returns will increase to 12.32%.

Table 10: Impact on Equity Returns by Variable

For Every:	Increase In:	Equity Returns Increase (Decrease) By:
1%	Interest Rate	-0.10%
1.0x	Total Leverage	+9.30%
1%	Growth Rate	+1.28%
1%	Margins	+2.32%

If interest has little to no impact, why not use debt to fund growth in your business? From a shareholder value standpoint, it's a no-brainer.

Part B: Project Analysis

Let's consider a project with a two-year payback. What are the shareholder value implications of forgoing this investment due to a lack of capital?

Table 11: Opportunity Cost of Forgoing a Project with a Two-Year Payback

$ in millions	Close	1	2	3	4	5	6	7	8	9	10
Investment	(10)	-	-	-	-	-	-	-	-	-	-
Return		5	5	5	5	5	5	5	5	5	5
Net Cash Flow	(10)	5	5	5	5	5	5	5	5	5	5
Project IRR	49.1%										
NPV_{10}	$18.8										

The opportunity cost of not investing in this project is $18.8 million. Many growing companies are not opportunity constrained, but capital-constrained – they do not necessarily have $10 million on hand to fund a project like this. One solution would be to source incremental debt financing. There are additional costs to this, so we make the following assumptions:

Table 12: Assumptions for Project NPV Analysis

Assumptions	
Investment	$10,000
Payback Period	24 Months
Senior Debt Interest	*5.0%*
Mezzanine Debt Interest	*15.0%*
Cost of Equity	*30.0%*
Discount Rate	*10.0%*

IRR in this case is infinite because no equity is tied up in this example. Instead, we focus on the project's net present value (or "NPV").

The following tables show the effects of funding a two-year payback project with senior debt, mezzanine debt, and equity. Each project example is considered on a 10-year time horizon. Funding the project with mezzanine debt, even with a high interest rate of 15%, is a very lucrative option. Funding the project with equity, however, is much less attractive, given that the cost compounds over the investment horizon.

Table 13: Effects of Funding the Project with Senior Debt, Assuming 5-Year Amortization and 5% Interest

$ in millions	Close	1	2	3	4	5	6	7	8	9	10
Debt Funded (Amortization)	10.0	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	-	-	-	-	-
Interest Cost		(0.5)	(0.4)	(0.3)	(0.2)	(0.1)	-	-	-	-	-
Project Cost	(10.0)										
Project Return		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Net Cash Flow	-	2.6	2.7	2.8	2.9	3.0	5.0	5.0	5.0	5.0	5.0
NPV_{10}	$22.1										

Table 14: Effects of Funding the Project with Mezzanine Debt, Bullet Amortization and 15% Interest

$ in millions	Close	1	2	3	4	5	6	7	8	9	10
Debt Funded (Amortization)	10.0	-	-	-	-	(10.0)	-	-	-	-	-
Interest Cost		(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	-	-	-	-	-
Project Cost	(10.0)										
Project Return		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Net Cash Flow	-	3.5	3.5	3.5	3.5	(6.5)	5.0	5.0	5.0	5.0	5.0
NPV_{10}	$18.8										

Table 15: Effects of Funding the Project with Equity, 30% Cost of Capital

$ in millions	Close	1	2	3	4	5	6	7	8	9	10
Equity Funded (Payback)	10.0	-	-	-	-	(37.1)	-	-	-	-	-
Interest Cost		-	-	-	-	-	-	-	-	-	-
Project Cost	(10.0)										
Project Return		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Net Cash Flow	-	5.0	5.0	5.0	5.0	(32.1)	5.0	5.0	5.0	5.0	5.0
NPV_{10}	$7.7										

Only by Year 8 in the above analysis does the net present value become positive when funding with equity. While raising funding through equity allows you to preserve cash flows, ultimately it is much more costly than debt and can even destroy value in the short-to-medium term for shareholders.

About Valitas

Valitas Capital Partners is a relationship-focused merger & acquisition (M&A), corporate finance, and strategic advisory firm. We collaborate with ambitious owners of high-performing businesses with a potential value of at least $100 million, to discover, unleash, and realize their full business value potential.

Owners and their leadership teams rely on Valitas when they:

- Want to triple the value of their business in five years or less, but realize they lack the expertise and experience to achieve this alone.
- Want to sell their company now, assured they will look back after the transaction knowing they got the best possible outcome.
- Seek the peace of mind of taking some chips off the table now, to secure their family's financial future without giving up control or the future increased value in their business.
- Are anguished they had to say no to growth opportunities they worked so hard to create because their bank cannot keep up with the needs of their fast-growing business.
- Are frustrated at the lack of traction they are getting with their acquisition efforts, whether it is not seeing enough quality acquisition opportunities, or by wasting time and money coming up empty-handed in auctions.
- Are dispirited by the significant investments in expensive specialists, technology, systems, and financial modeling capabilities required to execute their audacious strategic goals.
- Are intrigued by the idea of selling their business to their management team over time but want to recognize the full value now, while getting their cash payments as quickly as possible.

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About the Author

Paris Aden, Partner

Paris Aden is the founding Partner of Valitas Capital Partners. Since 1994, he has been involved with more than 100 M&A transactions with an aggregate value exceeding $80 billion. He has advised clients at Morgan Stanley, Credit Suisse First Boston and RBC Capital Markets and has acted as a private equity investor at Clairvest Group where he served on portfolio company boards. Paris was also a co-founder of Alluence Capital Advisors, a mid-market M&A advisory boutique that focuses on cross-border transactions.

Paris is recognized as an expert in M&A and corporate finance. Previous roles and speaking engagements include:

- Lecturer at the Stephen J.R. Smith School of Business at Queen's University in their Master of Finance (MFIN) program
- M&A subject matter expert for Moody's Analytics' Advanced Capital Markets Program for capital markets professionals
- Three-time expert panel moderator for the Toronto Business Transitions Forum
- TEC Canada "2018 Rookie of the Year" speaking award recipient
- Guest speaker for various industry and business leadership organizations

Paris formed Valitas to meet the unanswered needs of ambitious business owners seeking to:

- At least triple their business value in five years or less; or
- Are seeking an elite advisory boutique as their trusted advisor for their complex, mission-critical transactions.