YALE CASE JULY 23, 2023

# **Exploring Search Fund Entrepreneur Economics**

What exactly do search entrepreneurs need to believe and achieve to earn a \$10 million payday?

Nikhil Goel <sup>1</sup> Niel Wyma<sup>2</sup> Ron Wexler<sup>3</sup> Brian O'Connor<sup>4</sup> A. J. Wasserstein<sup>5</sup>

Search fund entrepreneurs choose a unique post-MBA entrepreneurial path for many reasons. They often want to lead an organization as a CEO and build and architect a company that reflects their vision and values. They are also usually seeking time flexibility, autonomy, and an opportunity to immediately utilize their professional and academic skills in an executive role. Finally, they desire a path to financial independence and wealth accumulation. Pursuing an entrepreneurship through acquisition (ETA) arc is emotionally fulfilling, intellectually challenging, and potentially economically rewarding. In this case note, we will explore what an ETA entrepreneur needs to believe and accomplish to hit the often-dreamed-about \$10 million payday. Spoiler alert: it is hard, and many things need to go right.

According to the 2022 Stanford Graduate School of Business Search Fund Study, only 27 search fund companies out of 166 have delivered \$10 million-plus windfalls to entrepreneurs (12 of these companies continue to operate, and 15 have exited).<sup>6</sup> These elite CEOs represent just 16% of the pool. With a relatively small percentage of CEOs achieving the much-sought-after payout, we want to decompose and break down what might need to happen for this magical outcome to become a reality.

In essence, we are trying to uncover what business metrics the searcher would have to achieve to realize a certain economic payoff. Additionally, and conversely, for a given set of business metrics, we are endeavoring to ascertain what the searcher payoff would look like. We do not exclusively measure success and happiness in dollars, but we do want to illuminate what searchers can potentially earn and help them create a framework to calculate the metrics they would need to believe in and achieve to meet their economic goals.

### How searchers earn their equity

In a typical ETA project, equity value is calculated by subtracting any debt from enterprise value. If there is positive equity value, entrepreneurs are eligible to participate in the common equity after investors have received their preferred return and their preferred capital. If cash is left over after the investors' priority returns, the entrepreneur can earn into equity for closing the transaction, remaining as CEO, and delivering certain prescribed internal rates of return (IRRs). For a visual depiction of an ordinary ETA waterfall, see **Figure 1**, which is based on our model explored in the mathematical section of our note below.

Figure 1: An illustrative ETA waterfall



Search fund entrepreneurs typically vest into  $25-30\%^*$  of the common equity of the acquired company in three equal tranches. The first tranche is earned at the acquisition of the target company. The second tranche accumulates over time, commonly over four- to five-year vesting on a ratable schedule. Finally, the third tranche is earned by delivering to investors an IRR or multiple of invested capital (MOIC) above predefined performance benchmarks. These performance benchmarks typically start at 20% IRR and climb to 35%, where the final third of equity is earned on a pro-rata basis. **Figure 2** depicts the earned percentage of performance equity at various IRR levels. For example, at a 20% IRR, the CEO would earn zero performance equity, and at a 35% or higher IRR, the entrepreneur would receive 100% of the performance opportunity.

The figures are calculated by first computing the number of IRR percentage points earned of the potential 15 percentage points (IRR minus 20%), column B in **Figure 2**. Then the percentage of the eligible 15 percentage points is quantified, column C in **Figure 2**. Finally, the product, column E in **Figure 2** of the previous calculation, and the eligible performance equity shares, column D in **Figure 2**, are evaluated. As an example, if the IRR is 28%, the difference between the IRR earned and the IRR floor is 8% (28% minus 20%). The earned percentage of the potential 15% (35% minus 20%) is 53% (8%/15%). And finally, if the eligible performance shares tranche is 8.33% (one-third of 25%), the actual earned performance equity is 4.4% (53% \* 8.33%). It is important to note that in this context, IRR refers not to the gross project IRR but to the net IRR delivered to investors after factoring in the entrepreneur's equity allocation.

<sup>\*</sup> Solo searchers tend to be eligible for up to 25% of the equity and a pair of searchers typically can enjoy up to 30% of the equity.

| A   | в       | С           | D       | E    |  |
|-----|---------|-------------|---------|------|--|
| IRR | IRR-20% | B/(35%-20%) | 33%*25% | C*D  |  |
| 20% | 0%      | 0%          | 8.3%    | 0.0% |  |
| 21% | 1%      | 0%          | 8.3%    | 0.0% |  |
| 22% | 2%      | 13%         | 8.3%    | 1.1% |  |
| 23% | 3%      | 20%         | 8.3%    | 1.7% |  |
| 24% | 4%      | 27%         | 8.3%    | 2.2% |  |
| 25% | 5%      | 33%         | 8.3%    | 2.8% |  |
| 26% | 6%      | 40%         | 8.3%    | 3.3% |  |
| 27% | 7%      | 47%         | 8.3%    | 3.9% |  |
| 28% | 8%      | 53%         | 8.3%    | 4.4% |  |
| 29% | 9%      | 60%         | 8.3%    | 5.0% |  |
| 30% | 10%     | 67%         | 8.3%    | 5.6% |  |
| 31% | 11%     | 73%         | 8.3%    | 6.1% |  |
| 32% | 12%     | 80%         | 8.3%    | 6.7% |  |
| 33% | 13%     | 87%         | 8.3%    | 7.2% |  |
| 34% | 14%     | 93%         | 8.3%    | 7.8% |  |
| 35% | 15%     | 100%        | 8.3%    | 8.3% |  |
|     |         |             |         |      |  |

Figure 2: Earned percentage of performance equity at various IRR levels

In this note, we will focus primarily on the third tranche. While the first two tranches are more a function of the contractual arrangement between the investors and the entrepreneur, the performance tranche is variable and realized based on how the business performs, which is primarily influenced by the searcher's actions or inactions. We will discuss seven levers, listed in **Figure 3**, that are available to the entrepreneur for influencing their odds of achieving performance benchmarks.

Figure 3: Seven levers a search fund entrepreneur can use to influence their performance shares' value



### Seven factors affecting a searcher's economics

When contemplating economic outcomes for search fund entrepreneurs, we believe seven major toggles exist. Some are more in the entrepreneur's control than others. Additionally, some, like purchase price, are a one-time decision that cannot be changed in the future. We assert that these are the fundamental factors

influencing an ETA CEO's financial opportunity. In addition, these dimensions play a material role in what happens with the performance equity shares, which is our focus in this discussion because the vesting portion of the common equity shares is earned through the passage of time, not through variable outcomes in the company's execution.

We highlight these seven areas because the entrepreneur needs to have a sharp point of view on each component to ladder up to the desired commercial result. Not all of the levers need to move assertively, but the entrepreneur needs to see a clear path to the end product. Although we center this note around a searcher earning a lofty \$10 million, each entrepreneur should play with their math to estimate a reasonable and likely payoff based on the inputs used. We will now explore each element more deeply.

### Purchase price

A searcher should aim to buy a good business at a reasonable price. Overpaying for an asset makes it significantly harder to hit return hurdles and jeopardizes the likelihood of the searcher earning all or any of their performance tranche, thereby lowering their overall economic payoff. All else being equal, the less a searcher pays for a business, the higher the odds of a substantial return on the investment and the lower the odds of an undesirable outcome. The entry multiple and valuation are undoubtedly fully within the entrepreneur's control. There is no exogenous risk with this ingredient. However, while we encourage searchers to avoid frothy valuations, we also urge entrepreneurs to eschew exclusively focusing on entry metrics. Purchasing a dilapidated company for a diminished valuation might bolster this single factor, but it could also introduce deleterious threats to other dimensions, like the ability to grow and manage operations. So, it is the entrepreneur's challenge to balance entry valuation with asset quality and opportunity. Generally, we would prefer to pay slightly more (as represented by a higher multiple of earnings) for a superior business with attractive economic characteristics and prospects than buy a dud for a low multiple of earnings.

To help explore entry EBITDA<sup>†</sup> multiples, it is useful to think of purchase price in terms of earnings yield – annual earnings divided by the price – which is the inverse of a price–earnings ratio. Earnings yield simply calculates the annual earnings rate for the investment. For example, if an entrepreneur acquires a company with \$2 million of EBITDA for \$10 million of enterprise value, the earnings yield is 20% (\$2 million divided by \$10 million. As earnings yields go down, it might be harder to fully capture the performance equity shares.

Not overpaying for the asset is key to realizing good economic outcomes.

### Use of debt

An important decision that a searcher must make when buying a company is how much debt to use for financing the purchase. Several factors influence this decision: (a) the cost of debt, which determines the interest expense; (b) the cash flows of the business, which determine the amount of debt that the business can prudently sustain and service; (c) the predictability of cash flows (debt is a contractual obligation and hence must be repaid at defined intervals); and (d) the available equity funds (if fewer equity dollars are available, more debt is required, this is often the case in asset-light businesses without hard assets like land, buildings, and machines). Furthermore, debt comes in many flavors: (a) regulated bank debt, (b) unregulated credit from a non-bank entity, (c) Small Business Administration 7(a) loans, and (d) seller

<sup>&</sup>lt;sup>†</sup> Earnings before interest, taxes, depreciation, and amortization.

paper. Each form of credit has unique characteristics, advantages, and encumbrances. Therefore, the searcher's task is to contemplate how much and which type of leverage to use.

Additionally, entrepreneurs need to consider timing issues when utilizing loans. For example, a business can be fully levered at acquisition or more robustly equitized with the anticipation of introducing a more debt-heavy capital structure at some point in the future. For a more thorough examination of debt concepts, please see our case note <u>On the Nature of Debt</u>.

In general, for a growing business generating stable, predictable cash flows, increasing the amount of leverage reduces the upfront equity investment and boosts returns for the equity holders – and increases the chance of the entrepreneur hitting their target IRRs and earning their full performance shares. However, if entrepreneurs take on too much leverage and the company cannot service the debt, the business might go into technical default, payment default, or even bankruptcy, and the entire equity might get vaporized. Therefore, it is imperative to consider these tradeoffs when deciding on leverage.

We embrace the philosophy of being on the aggressive side of leverage within the bounds of prudence because, simply, more leverage can drive more equity value creation.

#### Growth rate

The economic return that a searcher earns is intricately related to the growth of the business they are running. All things remaining equal, a higher growth rate (without using more capital, or at least more equity) helps boost returns. This occurs for two reasons. First, a more rapidly growing business will deliver a higher EBITDA number at the exit, boosting the potential enterprise and equity value. Second, if a company has a history of accelerated growth that a potential buyer believes will persist, the buyer will likely pay for the anticipated growth through a robust valuation. Therefore, achieving growth beyond the already assumed growth that was paid for in the acquisition valuation is key to realizing lucrative economic outcomes for all stakeholders, including the searcher.

Analyzing the sensitivity of the economic payoff to the EBITDA growth rate serves two essential purposes. First, it helps the searcher to understand the year-over-year EBITDA growth they should aspire to achieve to realize a certain economic return, that is, for a given set of parameters, what levels of EBITDA growth the business would need to achieve to hit the payoff threshold. When contemplating EBITDA growth, entrepreneurs should consider the many ways to get there, including organic growth, cost compression, price augmentation, and acquisitions – all of which have unique operational and capital requirements and risks.

Second, it allows the searcher to gauge how likely they are to achieve these growth metrics, given the market and the industry they operate in. In other words, if results from step one suggest that the entrepreneur needs to achieve year-over-year growth of 20%, analyzing the sensitivity of the economic payoff to the growth rate helps the CEO assess how realistic it is to expect to realize this growth, given what they know about the market and the industry. Achieving 20% growth in a software business that requires little to no capital expenditure might be more likely than achieving a similar increase in a manufacturing business that requires capital and time to build fixed assets. Searchers should anchor their growth assumptions to historical realities coupled with future changes and improvements to the company. Setting unactionable growth expectations is just delusional. Furthermore, entrepreneurs should contemplate how future growth will be attained. Organic growth and growth through acquisitions have very different risk profiles, capital requirements, and operational implications.

We do not prescribe or constrain the strategy to amplify EBITDA when considering EBITDA growth rates. Some entrepreneurs will pursue organic growth, while others might embrace a one-off or programmatic acquisition approach. Some could expand geographically, while others could develop the product and service offering. Each course presents unique risk profiles, operational complexity, and capital requirements. Regardless of the approach, EBITDA growth is an important concept to consider.

Rapidly growing businesses tend to command higher exit multiples and valuations, which is a bonus on top of any interim cash flows the growth generates, and controlled growth tends to augment equity values positively.

### Exit valuation driven by EBITDA multiple

A higher exit multiple results in a higher exit price, boosting returns since debt is fixed, and any incremental exit value accrues directly to equity holders. Thus, ETA entrepreneurs should do everything possible to amplify the exit multiple. Financial scholars point to the company's growth rate and the buyer's weighted average cost of capital as the primary inputs determining exit multiples. We concur, but we also add qualitative dimensions like operational excellence, revenue concentration, industry reputation, ease of integration, and a vibrant auction process, which could positively impact the exit multiple.

A robust exit multiple is akin to a goodbye gift from the business and can make an already sweet journey magical. However, the exit multiple and price are much more dependent on broader macroeconomic conditions over which the searcher has little control compared to some of the other seven inputs we contemplate here. A sour market, soaring interest rates, and a less-than-frothy auction can quickly squelch bubbly exit multiples.

Searchers need to prognosticate future exit multiples with caution, but this toggle can cover a lot of previous sins and propel the searcher deep into target IRRs and earned performance shares.

### Use of search capital

In a search fund structure, a searcher will have a budget that they use for the approximately two years allocated to source, diligence, and close a target acquisition. These funds cover salaries, office space, travel, general operating expenses, and deal costs. If the searcher successfully finds a business to purchase, those expenses are added to the transaction cost and included in the deal's closing cap table. Furthermore, the search capital is typically subject to a step-up to compensate the investors for the risk of a search fund. The quantum of the search budget and the terms of the step-up impact the searcher's payoff because they further dilute equity.

Searchers craft their own search budgets, and some seek to raise large search funds to accommodate generous current salaries and operating costs. Other stingier searchers opt for smaller funds with a game plan to live and operate on a shoestring. This seemingly innocuous choice has implications when pining for an outsized payoff. Since the search fund is typically stepped up 1.5x when a company is bought, \$500,000 is capitalized at \$750,000 at the time of acquisition with no additional cash infusion for the \$250,000 step-up premium. If a typical deal requires \$5 million in equity, this \$250,000 step-up represents 5% of dilution to the searcher. Larger funds or smaller transactions imply more dilution. This is all headwind when considering the searcher's goal of earning the full performance equity opportunity and a copious nominal dollar reward.

We do not advise searchers to under-raise when forming their funds. This might cause unnecessary stress and an undesirable outcome. But over-raising to enjoy a more comfortable salary might be trading long-

term monetary rewards for short-term convenience. A dash of miserliness might be healthy when zeroing in on the search fund amount.

An additional parameter that influences economic payoff is the preferred coupon that equity investors enjoy on their investments. The higher the preferred coupon, the lower the searcher's return because the searcher gets paid from the residual funds left over after preferred coupon payments have been made. Searchers should seek to be on the low side of the fair market range of preferred coupon rates. While catch-up provisions on preferred coupons are sometimes included, they are not universally applied or accepted. All our calculations below assume that no catch-ups are available to searchers.

### Holding period

The holding period plays a big role in determining the searcher's IRR because IRR considers the time value of money. Using the IRR lens, earning 2x on an investment over one year is much more valuable than earning the same amount over five years. Therefore, the IRR for the searcher is impacted by the holding period of the investment. The higher the holding period, the lower the IRR, if the multiple of invested capital is held constant. Searchers do not fully control the holding period, however; the board of directors has an influential role too. But searchers can help guide timing issues. When considering holding timeframes, entrepreneurs must explore the tension between capturing the full IRR performance hurdles on potentially lower equity values and forgoing some earned equity for higher nominal equity dollars.

### Business size

When searchers pursue a target company, they look for many dimensions, one of which is the target company's size measured by EBITDA. Conventional wisdom in the search community espouses that too small a company can feel like buying a job, with the company lacking infrastructure, the right people, and the ability to invest in the business and with EBITDA being too tiny to tolerate further diminution. Seeking a company that is too big introduces purchasing competition from private equity firms, independent sponsors, strategic acquirers, and family offices making direct investments.

We directionally agree with these common sentiments, but we also think it is important for searchers to understand the economic impact of leaning towards a smaller or bigger target company. This decision influences how much money they have working for them and the fiscal denominator from which they are promoting. More or fewer nominal dollars can dramatically change the searcher's potential economic rewards. Business size, which is fully within the searcher's control, should be a significant consideration for searchers when examining potential acquisition candidates. Lower IRRs with more dollars at play could be a superior financial choice for entrepreneurs when compared to higher IRRs with fewer dollars at work. We note here that exceptionally large search fund acquisitions (typically more than \$15–20 million of equity investment) often prompt slight amendments to searcher's economic terms with their investors. This topic is outside of the scope of this note.

# Layering in the math

To quantify our findings, we will consider an illustrative scenario where a solo search fund entrepreneur with a 25% potential equity pool seeks to earn at least \$10 million when exiting the business.<sup>‡</sup> We additionally assume the company and the deal have the characteristics defined in **Figure 4**, which are fairly typical historically and representative of a common search fund acquisition but might not be indicative in

<sup>&</sup>lt;sup>\*</sup> The bar for a duo of searchers to each garner \$10 million is significantly higher.

today's higher interest rate environment.<sup>§</sup> If an entrepreneur proceeds through this scenario, they will deliver a 26% IRR and procure \$2.6 million for their efforts over a two-year search and a five-year operating period. While this result is certainly not bad, it does not approach the aspirational \$10 million target jackpot that so many ETA entrepreneurs seek.

We will now explore each of the seven levers in isolation to better understand the sensitivity of modest changes on the potential outcome. We will then present a few scenarios with multiple dynamic changes to see how moving several pieces of the puzzle in aggregate impacts outcomes. Our focus is exclusively on the entrepreneur's nominal dollar outcome. We are not focused on investor results in any way. When calculating proceeds in the waterfall, we assume that the investor security is a redeemable participating preferred without an entrepreneur catch-up and that the entrepreneur holds common equity shares. We presume that tax distributions are not part of the investors' IRR calculation and that free cash is used to extinguish debt as available and then accumulates on the balance sheet – we are not using any free cash to pay down the preferred return or return capital to investors. Are our assumptions directionally realistic? They probably are, but they are certainly not pinpoint accurate for every scenario and situation. Our math and model are constructed for conceptual pedagogical purposes; if students or entrepreneurs do not agree with our assumptions, they should play with their own model with their unique inputs. An Excel spreadsheet version of our elementary computations can be located <u>here</u>. For an additional model built by search fund investor practitioners, in this case, San Mateo, California-based <u>Anacapa Partners</u>, please click <u>here</u>.

#### Figure 4: Illustrative business and deal characteristics



#### Purchase price

In our base case, we assume a \$10 million enterprise value at entry based on a 5x EBITDA multiple on \$2 million of EBITDA. This results in a \$2.61 million compensation package for the entrepreneur. To sensitize the impact of entry valuation, we focus on the entry EBITDA multiple and move it up and down by increments of one to observe how changes in the acquisition valuation impact the entrepreneur's payday (**Figure 5**).

<sup>&</sup>lt;sup>§</sup> It is our attempt to offer entrepreneurs a lens to think about achieving economic outcomes, not necessarily market commentary based on specific conditions at any point in time.

If the entrepreneur succumbs to adroit seller negotiation and creeps up in entry multiple, the entrepreneur's outcome falls to \$1.89 million at a 6.0x entry multiple and \$1.36 million at a 7.0x entry multiple, representing decreases in earnings of 28% and 48%, respectively. Moving in the other direction, if the entrepreneur paid attention in their negotiations classes and can tamp down the entry multiple to 4.0x, they are rewarded with \$3.51 million, and at 3.0x, they capture \$4.39 million. This represents increases in compensation of 34% and 68%, respectively.

Entry valuations matter quite a bit in a typical search fund deal over a five-year hold (they matter less in very long holding periods). Searchers should fight assiduously to compress entry multiples if they aspire to monetary riches and desire to earn their full performance shares. Upward drift in entry multiples is an excellent way to create steep hurdles for the searcher's economics. Although this might seem obvious, many searchers in a scramble to close a deal at month twenty relax parameters and tolerate higher entry multiples or offer lucrative earnouts to sellers – an increase in price by another name – while embracing an 'any deal is better than no deal' mindset. While this optionality might have a kernel of truth, it could also set the searcher up for a five-year slog of hard work with no performance equity. Valuation discipline matters and almost always has a material impact on the entrepreneur's equity potential.

### Figure 5: Sensitivity analysis of purchase price reflected by EBITDA entry multiples

| Purchase price | 3.0x           | 4.0x           | 5.0x           | 6.0x           | 7.0x           |
|----------------|----------------|----------------|----------------|----------------|----------------|
| Dollar outcome | \$4.39 million | \$3.51 million | \$2.61 million | \$1.89 million | \$1.36 million |
| %Δ             | 68%            | 34%            |                | (28%)          | (48%)          |

### Use of debt

In our base case, we assume an entrepreneur uses \$5 million of debt for the proposed \$10 million purchase. A 50% debt utilization rate is somewhat normal and results in the \$2.61 million outcome for the entrepreneur. To sensitize and examine the impact of debt in the proposed capital structure, we amplify and attenuate debt utilization rates by increments of 10% (**Figure 6**). Let's look at the effect on the searcher's earnings by using more and less debt in the capital structure. Keep in mind that, all things being equal, more debt drives more equity value but increases the risk of technical or payment default.

If a searcher uses 10% more debt, a 60% rate, their equity value pops to \$2.86 million, and at 70%, equity rewards jump to \$3.19 million. This represents 10% and 22% increases, respectively. If less debt is used at 40%, compensation drops to \$2.41 million, and at 30% it drops to \$2.24 million, decreases of 8% and 14%, respectively.

Leverage drives equity compensation for searchers and should be embraced with prudence and caution. Over-equitizing a transaction can provide an initial operating cushion and breathing room, but it might create structural encumbrances to garnering performance shares earnings. Searchers should deeply contemplate the use of debt in their capital structure and seek to find the balance point of robustly, but not recklessly, using leverage in their acquisition because the sensitivity analysis shows that the amount of debt installed matters significantly.

#### Figure 6: Sensitivity analysis of debt used in a transaction

| Use of debt    | 30%            | 40%            | 50%            | 60%            | 70% |
|----------------|----------------|----------------|----------------|----------------|-----|
| Dollar outcome | \$2.24 million | \$2.41 million | \$2.61 million | \$3.19 million |     |
| %Δ             | (14%)          | (8%)           |                | 10%            | 22% |

#### Growth rate

Growth rates matter in an ETA project. When we think about growth, we are focused on EBITDA growth. Revenue growth might be flashy and exciting, but these assets tend to trade on EBITDA, so that is where the growth needs to happen. It is challenging to drive equity value and IRR without some form of growth. Businesses that have tailwinds and grow potentially enjoy interim-period cash flows and sell off of a larger nominal EBITDA number and typically at a higher EBITDA multiple, all else being equal. To scrutinize the impact of EBITDA growth, we assume a base growth rate of 7%, which returns \$2.61 million for the entrepreneur, and then we augment and contract growth by increments of two percentage points (**Figure** 7).

Two additional points of EBITDA growth (9%) drives a \$3.27 million outcome, and four additional points of growth results in proceeds of \$4.02 million. This implies 25% and 54% gains, respectively. Conversely, subtracting two points of growth to 5% implies \$2.04 million in remuneration, and reducing growth by four points to 3% results in just \$1.54 million. These are 22% and 41% compressions, respectively.

EBITDA growth, or the lack of it, will dramatically impact a searcher's financial outcome. Entrepreneurs can have some control over growth dynamics by selecting an industry and business with historical and enduring tailwinds and growth performance and by taking discrete measures to positively impact accretive growth while in the CEO role. While growth does not need to be supersonic, some modest EBITDA growth goes a long way in helping an ETA earn a desirable outcome.

#### Figure 7: Sensitivity analysis of EBITDA growth rates

| Growth rate    | 3%                     | 5%    | 7%             | 9%             | 11%            |
|----------------|------------------------|-------|----------------|----------------|----------------|
| Dollar outcome | outcome \$1.54 million |       | \$2.61 million | \$3.27 million | \$4.02 million |
| %Δ             | (41%)                  | (22%) |                | 25%            | 54%            |

#### Exit valuation driven by EBITDA multiple

In our base-case scenario, we assume an exit enterprise valuation of \$19.63 million driven by \$2.80 million in EBITDA and a 7x multiple. This provides the entrepreneur with \$2.61 million after working through the waterfall. As we described above, exit valuations are subject to many factors, including anticipated growth rates and the buyer's cost of capital. Furthermore, trading multiples, a proxy of discounted cash flows, move with market conditions. It is complicated for an entrepreneur to prognosticate future exit multiples, and they have little control over the secular dynamics, but they do have control over running an excellent auction process and delivering the cleanest, most attractive, and most desirable asset possible.

To probe the impact of exit multiples, we enhance the multiple by two increments of one on the positive side and diminish the multiple by two increments of one on the negative side (**Figure 8**). The impact of a

growing exit multiple can be miraculous. When the multiple grows from 7.0x to 8.0x, the entrepreneur reaps \$3.41 million, and a frothy 9.0x showers \$4.26 million on the searcher. This represents 31% and 63% gains, respectively. On the other hand, atrophying exit multiples can be punishing. A drop from 7.0x to 6.0x yields \$1.88 million, and 5.0x delivers just \$1.22 million. This depicts 28% and 53% contractions, respectively.

Robust exit multiples can obfuscate a company and CEO's shortcomings and underperformance dramatically. The impact is substantial and material. While entrepreneurs will not have complete control over the exit multiple, they can help shape and influence it by timing an exit into a bubbly market, managing the company in the best possible way, and hiring an excellent intermediary to run a hyper-competitive auction.

### Figure 8: Sensitivity analysis of exit multiples

| Exit multiple  | 5.0x           | 6.0x           | 7.0x           | 8.0x           | 9.0x |
|----------------|----------------|----------------|----------------|----------------|------|
| Dollar outcome | \$1.22 million | \$1.88 million | \$2.61 million | \$4.26 million |      |
| %Δ             | (53%)          | (28%)          |                | 31%            | 63%  |

### Use of search capital

In our base-case scenario, we assume the searcher has raised \$500,000 in search capital to conduct the twoyear search process. This produces a \$2.61 million compensation package at exit. Some ETA entrepreneurs pursue a search with less search capital since they are young and still in graduate-student mode, and some searchers raise more capital to subsidize a mid-career lifestyle. We understand these choices and certainly do not judge. Let's test the impact of the quantity of search capital by adding and subtracting increments of \$100,000 to the search budget (**Figure 9**). Recall that any search capital is rolled into the final cap table at a 1.5x step-up.

If the search budget is expanded to \$600,000, the searcher captures \$2.53 million, and \$700,000 results in \$2.45 million. This displays 3% and 6% decreases, respectively. If a searcher compresses their budget to \$400,000, the reward is \$2.70 million, and \$300,000 delivers \$2.79 million. These are 3% and 7% pickups, respectively. While we are in favor of searchers embracing a fair search budget, we do not encourage overfunding the project either. Searchers should be able to live modestly without stress, and adopting a skinny budget is good hygiene and practice for running a company's profit-and-loss statement. That being said, there are no gigantic impacts in using a slightly smaller or larger search budget, and entrepreneurs should raise enough capital to have the resources to execute well (travel, database access, diligence costs) and be able to live without undue stress. Larger search budgets have a more pronounced impact when transactions are smaller.

#### Figure 9: Sensitivity analysis of the use of search capital

| Search budget  | \$300,000      | \$400,000      | \$500,000      | \$600,000                               | \$700,000 |  |  |
|----------------|----------------|----------------|----------------|---|-----------|--|--|
| Dollar outcome | \$2.79 million | \$2.70 million | \$2.61 million | \$2.61 million \$2.53 million \$2.45 mi |           |  |  |
| %Δ             | 7%             | 3%             |                | (3%)                                    | (6%)      |  |  |

#### Holding period

We are generally fans of longer holding periods and explored this topic in our case note <u>On the Nature of Long-term Holds: Why Entrepreneurs Should Embrace this Strategy</u>. Longer holding periods allow entrepreneurs to season, grow, develop roots in an industry, and harvest investments in the business. To assess the impact of holding periods in our model, we supplemented our base five-year time frame with two-year increments and curtailed the base assumption by two-year steps as well (**Figure 10**). While our model calls for a five-year term with a \$2.61 million payout, adding two years and extending the term to seven years will result in \$3.35 million of proceeds, a 28% gain. The entrepreneur would enjoy \$4.23 million at nine years, a 62% increase. If the entrepreneur drops the holding period to three years, the rewards attenuate to \$2.02 million, a 23% decrease. At one year, the proceeds are \$1.20 million, a 54% drop. Note that for simplicity, we are not discounting future dollar amounts back to compare outcomes more accurately. So, contrasting dollars for a nine-year holding period with dollars from a five-year holding period is not a perfectly accurate analysis since the dollars represent different vintages.

The preferred return and the IRR hurdle to capture the performance equity are part of the challenge of more extended holding periods in search fund projects. A constantly ticking IRR clock is more challenging to overcome as holding periods extend. Entrepreneurs need to carefully evaluate the tradeoff between longer holds with steep preferred returns and IRR thresholds against the opportunity to reap more nominal dollars.

We encourage searchers to consider their supplementary nominal equity payouts derived from additional operating years and compare them to their opportunity costs. In our example below, an additional two years of operating (from five years to seven) results in an incremental \$0.74 million payout, or \$0.37 million per year, on top of salary and short-term incentives.

#### Figure 10: Sensitivity analysis of holding periods

| Holding period | 1.0 year       | 3.0 years      | 5.0 years      | 7.0 years      | 9.0 years      |
|----------------|----------------|----------------|----------------|----------------|----------------|
| Dollar outcome | \$1.20 million | \$2.02 million | \$2.61 million | \$3.35 million | \$4.23 million |
| %Δ             | (54%)          | (23%)          |                | 28%            | 62%            |

#### Business size

Search fund entrepreneurs consider multiple objectives when seeking a business to acquire. One dimension is the size of the business, measured by EBITDA. A business that is too big might come with lofty valuation expectations and many suitors. Family offices, microcap private equity firms, fundless sponsors, and strategic buyers are all scurrying about to source and purchase desirable companies in attractive industries at reasonable prices – and the competition gets thicker as EBITDA rises. If a searcher pursues too small a company, there might be an absence of infrastructure, and the experience could feel more like acquiring a shop than ascending to a CEO role. Furthermore, the starting EBITDA will impact the searcher's bounty (**Figure 11**). This is primarily because the entrepreneur will be playing with more dollars in a bigger deal and promoting off of those dollars. One nuance to keep in mind is the tipping point when investors trim back the incentive shares from 25% to something lower or more heavily weighted towards performance because the invested equity is swelling.

To scrutinize the impact of business size as measured by starting EBITDA, we assume a base case with \$2.0 million of EBITDA producing \$2.61 million for the entrepreneur. We then sensitize the starting EBITDA

by \$0.50 million increments to the positive and negative. When the starting EBITDA lifts to \$2.5 million, the entrepreneur is rewarded with \$3.46 million, a 32% increase. The new payday is even better with \$3.0 million in EBITDA, which yields \$4.31 million for the CEO, a 65% pop. Smaller EBITDAs are a drag to the entrepreneur, with proceeds dipping to \$1.77 million at \$1.50 million of starting EBITDA, a 32% dip, and \$1.0 million of starting EBITDA sheds only \$0.96 million on the entrepreneur, a 63% contraction.

Bigger is better. Holding all other dimensions equal, entrepreneurs should seek larger EBITDA businesses in their search. While this is not completely within the searcher's control, entrepreneurs can pursue companies that have the necessary size to help propel them to the payday they seek.

This is of particular interest to partnered searchers, who need to share the typical 30% common equity between them.

#### Figure 11: Sensitivity analysis of business size as measured by target EBITDA

| Business size  | \$1,000,000    | \$1,500,000    | \$2,000,000    | \$2,500,000    | \$3,000,000    |
|----------------|----------------|----------------|----------------|----------------|----------------|
| Dollar outcome | \$0.96 million | \$1.77 million | \$2.61 million | \$3.46 million | \$4.31 million |
| %Δ             | (63%)          | (32%)          |                | 32%            | 65%            |

### What the entrepreneur needs to believe

So far, in this case note, we have described and mechanically dissected the levers a search fund entrepreneur can play with in an attempt to derive a \$10 million outcome. Recall that our base scenario produces a \$2.61 million result for the entrepreneur, so something needs to change for the good to bridge the gap to \$10 million. In reality, an entrepreneur will adjust multiple levers by various increments to climb toward an eight-figure payoff. To bring together numerous dimensions, we present four scenarios below in **Figure 12**. We display our base case, a down case where everything gets slightly worse, an up case where several dimensions improve a bit, and an aspirational case where a handful of toggles are enhanced materially. While a path to \$10 million does exist in the aspirational case, the entrepreneur truly needs to believe these are actionable and obtainable assumptions.

We will now explore the various combinations of assumptions depicted below.

### Down case

Before we examine what might happen in the up and the aspirational cases, we will explore the down case because potential entrepreneurs need visibility on economic payouts when things do not go well. In our down case, we attenuate multiple toggles – slightly. This is not a disaster scenario, just one in which everything goes slightly awry. Of course, when several parameters degrade, there is a compounding effect. We decrease the incipient EBITDA from \$2.0 million to \$1.0 million, we increase the purchase multiple from 5.0x to 6.0x, we truncate the debt used from 50% to 40%, we tweak the search budget up from \$500,000 to \$700,000, we compress annual EBITDA growth from 7% to 5%, and we drop the exit multiple from 7.0x to 6.0x. These are all slight changes but not material alterations. When we layer all of the new math into the model and waterfall, the entrepreneur winds up getting \$0.2 million. That is correct – just \$0.2 million. This handful of slight, worse changes results in the entrepreneur getting a couple hundred thousand dollars, despite vesting equity at the deal closing and vesting equity over five years for remaining in place as the CEO. Even though equity was earned and vested, the performance under this scenario precludes the entrepreneur from earning anything material in the waterfall.

#### Upside case

We now consider the upside case. In this situation, we move several dimensions in a positive direction. We raise the initial EBITDA from \$2.0 million to \$2.5 million, we attenuate the entry multiple from 5.0x to 4.75x, we modify the percentage of debt utilized to 55%, we maintain the search capital at \$500,000, we strengthen annual EBITDA growth from 7% to 9%, and we boost the exit multiple from 7.0x to 8.0x. These slight, favorable changes generate \$6.1 million for the entrepreneur, up from \$2.6 million. All of the alterations here are tenable and are just slight improvements on the base case, but certainly plausible. Although this is not the \$10 million windfall many entrepreneurs seek, it is a meaningfully improved outcome.

#### Aspirational case

Finally, we will contemplate the aspirational case. In this scenario, we go beyond the upside case and modify several levers more intensely on the positive side. We magnify starting EBITDA from \$2.0 million to \$3.0 million, we drop the entry multiple to 4.5x, we escalate the percentage of debt utilized from 50% to 60%, we hold the search budget at \$500,000, we extend the rate of annual EBITDA growth from 7% to 12%, and we scale up the exit multiple from 7.0x to 9.0x. This combination of changes yields a \$10 million windfall for the entrepreneur.

While we consider the cocktail of assumptions in the aspirational case to be realistic and achievable, it does imply that a handful of things all moved in the right direction. Achieving a \$10 million outcome, especially in five years, is very challenging, and searchers should understand the roadmap they need to build to arrive at the desired destination. Alternatively, entrepreneurs can play with the math, reset their financial target, and aim towards whatever goal seems most realistic to them.

|                       | A             | В             | С             | D                 |
|-----------------------|---------------|---------------|---------------|-------------------|
|                       | Base case     | Down case     | Up case       | Aspirational case |
| Purchase price        | 5.0x          | 6.0x          | 4.8x          | 4.5x              |
| Use of debt           | 50%           | 40%           | 55%           | 60%               |
| Growth rate           | 7%            | 5%            | 9%            | 12%               |
| Exit valuation        | 7.0x          | 6.0x          | 8.0x          | 9.0x              |
| Use of search capital | \$500,000     | \$700,000     | \$500,000     | \$500,000         |
| Holding period        | 5 years       | 5 years       | 5 years       | 5 years           |
| Business size         | \$2.0 million | \$1.0 million | \$2.5 million | \$3.0 million     |
| Dollar outcome        | \$2.6 million | \$0.2 million | \$6.1 million | \$10.6 million    |

#### Figure 12: A multi-dimensional analysis of the seven levers

When embarking on an ETA pathway, entrepreneurs should consider which levers matter most and intently focus on those specific elements when attempting to impact their financial outcome. Not all inputs have the same materiality of impact. In **Figure 13**, we display a tornado chart depicting those inputs with the most bearing.<sup>\*\*</sup> Our analysis is imperfect because we have arbitrarily selected increments to sensitize each input.

<sup>&</sup>lt;sup>\*\*</sup> The number depicted in the chart (in millions) is the total spread between the low point and high point outcomes for the entrepreneur's proceeds for each given lever based on our assumptions in our model.

Regardless, the image illuminates which areas matter most when thinking about laddering up to a lucrative pecuniary windfall. For example, acquiring a target company with more EBITDA impacts outcomes, while increasing or decreasing the search budget size does not really matter that much. Getting entry and exit EBITDA multiples right greatly enhances results, as do EBITDA growth rates. Entrepreneurs should determinedly concentrate on elements with the most remarkable consequences and over which they have a modicum of control or influence.

In our sensitivity analysis, we were somewhat surprised that debt quantities did not have a higher impact on the entrepreneur's economic outcome. We believe this is the case for a few reasons. Our model has debt fully amortized relatively quickly, mitigating the importance of leverage. As debt levels rise, so does interest expense which somewhat ameliorates the magnifying impact of more debt on equity. In our base case, exit multiples are set at 7x; two turns greater than the 5x entry multiple. If we assumed more multiple arbitrage, increasing debt levels would be further rewarded. We caution readers not to falsely conclude that debt levers are not that important; they are, but they depend on the specific conditions present in a given transaction.



#### Figure 13: Inputs with the most bearing<sup>††</sup>

Many entrepreneurs keenly focus on the dynamic relationship between EBITDA growth rates and entry and exit multiples. To demonstrate this relationship, we have created a two-variable analysis using EBITDA growth rates on the X axis and the spread between entry and exit multiple on the Y axis (**Figure 14**). The output is based on our base-case assumptions previously discussed while sensitizing the two variables in **Figure 14**. Once again, we see that accumulating \$10 million is a steep hurdle, even with positive multiple arbitrage and robust growth. Furthermore, we think it is very challenging to maintain muscular growth over multiple periods. Finally, counting on overly optimistic multiple arbitrage might be disingenuous.

<sup>&</sup>lt;sup>††</sup> The gains from longer holding periods are more sensitive to our model assumptions and parameters than gains from other inputs.

Figure 14: How many outcomes deliver more that \$10 million for the entrepreneur when considering EBITDA growth rate and spread from entry multiple (in millions)

|       |     |        |        |        | EB     | ITDA grow | th rate |        |         |         |         |         |
|-------|-----|--------|--------|--------|--------|-----------|---------|--------|---------|---------|---------|---------|
| x     |     | 5%     | 6%     | 7%     | 8%     | 9%        | 10%     | 11%    | 12%     | 13%     | 14%     | 15%     |
|       | (2) | \$0.08 | \$0.17 | \$0.27 | \$0.37 | \$0.48    | \$0.59  | \$0.70 | \$0.82  | \$0.94  | \$1.06  | \$1.20  |
|       | (1) | \$0.50 | \$0.62 | \$0.74 | \$0.86 | \$0.99    | \$1.13  | \$1.29 | \$1.49  | \$1.70  | \$1.92  | \$2.16  |
| TDA   | 0   | \$0.93 | \$1.07 | \$1.22 | \$1.42 | \$1.63    | \$1.86  | \$2.11 | \$2.37  | \$2.65  | \$2.95  | \$3.27  |
| EBI   | 1   | \$1.42 | \$1.64 | \$1.88 | \$2.14 | \$2.41    | \$2.71  | \$3.02 | \$3.36  | \$3.71  | \$4.09  | \$4.50  |
| ttry  | 2   | \$2.04 | \$2.32 | \$2.61 | \$2.93 | \$3.27    | \$3.64  | \$4.02 | \$4.43  | \$4.87  | \$5.33  | \$5.81  |
| m ei  | 3   | \$2.72 | \$3.05 | \$3.41 | \$3.79 | \$4.20    | \$4.63  | \$5.09 | \$5.58  | \$6.01  | \$6.41  | \$6.81  |
| l fro | 4   | \$3.45 | \$3.84 | \$4.26 | \$4.71 | \$5.19    | \$5.69  | \$6.11 | \$6.51  | \$6.93  | \$7.37  | \$7.82  |
| read  | 5   | \$4.22 | \$4.68 | \$5.16 | \$5.68 | \$6.11    | \$6.52  | \$6.95 | \$7.39  | \$7.86  | \$8.33  | \$8.82  |
| Sp    | 6   | \$5.04 | \$5.56 | \$6.02 | \$6.44 | \$6.87    | \$7.33  | \$7.79 | \$8.28  | \$8.78  | \$9.29  | \$9.83  |
|       | 7   | \$5.86 | \$6.28 | \$6.72 | \$7.17 | \$7.64    | \$8.13  | \$8.64 | \$9.16  | \$9.70  | \$10.26 | \$10.84 |
|       | 8   | \$6.50 | \$6.95 | \$7.42 | \$7.91 | \$8.41    | \$8.94  | \$9.48 | \$10.04 | \$10.62 | \$11.22 | \$11.84 |

Finally, we create a two-variable table with business size (represented by the target company's EBITDA) on the X axis and the spread between entry and exit multiples on the Y axis (**Figure 15**). A larger starting business and EBITDA base increases the number of pathways to achieve a \$10 million outcome. This is still difficult, but we see how business size does play a significant role.

Figure 15: How many outcomes deliver more that \$10 million for the entrepreneur when considering size of the target business and spread from entry multiple (in millions)

|       |     |           |             |             | Size        | of target bus | siness (initi | al EBITDA)  |             |             |             |             |
|-------|-----|-----------|-------------|-------------|-------------|---------------|---------------|-------------|-------------|-------------|-------------|-------------|
|       | _   | \$500,000 | \$1,000,000 | \$1,500,000 | \$2,000,000 | \$2,500,000   | \$3,000,000   | \$3,500,000 | \$4,000,000 | \$4,500,000 | \$5,000,000 | \$5,500,000 |
|       | (2) | \$0.00    | \$0.00      | \$0.11      | \$0.27      | \$0.44        | \$0.60        | \$0.77      | \$0.94      | \$1.10      | \$1.27      | \$1.44      |
| X     | (1) | \$0.00    | \$0.17      | \$0.46      | \$0.74      | \$1.02        | \$1.31        | \$1.59      | \$1.87      | \$2.16      | \$2.44      | \$2.72      |
| TD/   | 0   | \$0.01    | \$0.41      | \$0.81      | \$1.22      | \$1.67        | \$2.12        | \$2.58      | \$3.04      | \$3.50      | \$3.96      | \$4.42      |
| EBI   | 1   | \$0.12    | \$0.64      | \$1.25      | \$1.88      | \$2.52        | \$3.16        | \$3.81      | \$4.46      | \$5.11      | \$5.76      | \$6.41      |
| ntry  | 2   | \$0.24    | \$0.96      | \$1.77      | \$2.61      | \$3.46        | \$4.31        | \$5.17      | \$6.02      | \$6.88      | \$7.74      | \$8.59      |
| ome   | 3   | \$0.36    | \$1.31      | \$2.35      | \$3.41      | \$4.48        | \$5.55        | \$6.63      | \$7.70      | \$8.78      | \$9.86      | \$10.94     |
| nd fr | 4   | \$0.50    | \$1.70      | \$2.97      | \$4.26      | \$5.56        | \$6.87        | \$8.18      | \$9.49      | \$10.81     | \$12.12     | \$13.44     |
| pre   | 5   | \$0.67    | \$2.11      | \$3.62      | \$5.16      | \$6.71        | \$8.26        | \$9.75      | \$11.22     | \$12.70     | \$14.18     | \$15.65     |
| S     | 6   | \$0.85    | \$2.54      | \$4.31      | \$6.02      | \$7.67        | \$9.32        | \$10.97     | \$12.63     | \$14.28     | \$15.93     | \$17.58     |
|       | 7   | \$1.04    | \$3.00      | \$4.89      | \$6.72      | \$8.55        | \$10.37       | \$12.20     | \$14.03     | \$15.86     | \$17.68     | \$19.51     |
|       | 8   | \$1.25    | \$3.42      | \$5.42      | \$7.42      | \$9.42        | \$11.43       | \$13.43     | \$15.43     | \$17.43     | \$19.44     | \$21.44     |

### Conclusion

ETA entrepreneurs who seek to accumulate a magical \$10 million on their ETA journey need to understand several things. First, it is hard to do. Relatively few CEOs walk away with an eight-figure payday, so aspiring entrepreneurs should have realistic expectations about what is tenable. To win \$10 million in riches, entrepreneurs should internalize what they need to believe about a target company and its potential performance. We assert that entrepreneurs have seven areas to consider. Some of these levers are directly

within the entrepreneur's control, some can be influenced, and some are subject to exogenous whims. Each individual element is unlikely to drive a munificent outcome on its own, but in some combination, the levers can push entrepreneurs closer to or beyond the elusive \$10 million ETA jackpot.

We encourage entrepreneurs to build a roadmap depicting several pathways to attain their desired financial outcome (whether it is \$10 million or some other figure). These avenues can give entrepreneurs a superior understanding of what they need to believe, focus on, and obtain to earn the variable incentive portion of their equity shares.

We wish you good luck and success in your journey, and whether you get to a fantasy \$10 million windfall or not, we hope your jaunt is fulfilling and lucrative!

This case has been developed for pedagogical purposes. The case is not intended to furnish primary data, serve as an endorsement of the organization in question, or illustrate either effective or ineffective management techniques or strategies.

Copyright 2023 © Yale University. All rights reserved. To order copies of this material or to receive permission to reprint part or all of this document, please contact the Yale SOM Case Study Research Team: email <u>case.access@yale.edu</u>.

### Endnotes

<sup>1</sup> Nikhil Goel is a case writer, a CFA charterholder, a 2023 Yale School of Management MBA graduate, and an associate at Evercore.

<sup>2</sup> Niel Wyma is a lecturer on entrepreneurship through acquisition at the University of Cape Town's Graduate School of Business and the University of Pretoria's Gordon Institute of Business Science (GIBS). He is also a cofounder and partner of Ambit Partners, a global institutional investor in search funds.

<sup>3</sup> Ron Wexler is Chicago-based search fund investment firm NextGen Growth Partners' director of business and talent development and oversees talent acquisition, talent development, play-booking best practices, and business development initiatives.

<sup>4</sup> Brian O'Connor currently teaches entrepreneurship through acquisition at the University of Chicago Booth School of Business, as an adjunct professor of entrepreneurship. Additionally, he is the founder of NextGen Growth Partners, a Chicago-based search fund investment firm.

<sup>5</sup> A. J. Wasserstein is the Eugene F. Williams, Jr. Lecturer in the Practice of Management at the Yale School of Management.

<sup>6</sup> Kelly, Peter, and Heston, Sara. 2022 Search Fund Study Selected Observations. Stanford University Graduate School of Business. Case E-807.