The Times They Are A-Changin'

PE Funds and the Power of Quantifying Stories in Scenarios

Driving Odds with Fundamental Insight & Research

Throughout my career, I have found that the best private equity investors are careful enough to minimize mistakes that destroy capital and bold enough to identify, evaluate and ultimately close on a small number of investments that eventually dominate their overall fund returns. Their success or failure typically rests on a handful of major decisions. Because the stakes are so high and the competition for returns is so fierce, Private Equity (PE) firms devote significant time, effort and money to vetting each investment, and their senior leaders tend to be outstanding decision makers. When markets were stable and rising, the decision process seemed pretty straightforward, then along came the global pandemic that not only changed our daily lives but also laid bare the need for more rigorous scenario analysis.

Mike Ryan
Founder and CEO
Bullet Point Network

COVID-19 and its economic fallout reminded us again that the best-laid plans of mice and men often go awry. Since virtually no one could have predicted the timing of this pandemic which catalyzed unprecedented social and economic lockdown measures, triggered the steepest reversal in risk appetite in 30 years, and drew the largest and swiftest fiscal and monetary stimulus package in history, some will conclude that any advance scenario planning was useless. As a fundamental investor who has used scenario analysis from my days as a partner at Goldman Sachs, while making investments on behalf of Harvard University's endowment and in my own family office, I disagree wholeheartedly with this perspective.

Considering the odds and magnitude of different potential outcomes drives better decisions; the trick is to make sure the odds are driven by the same fundamental insight and research that is captured in the investment memo or committee meeting.

Clearly, the best PE shops have been successfully using their insights, analysis and current practices to drive returns for the last three decades; the PE playbook works. However, so many things have changed since March 2020, as we have all been reminded again about the massive cone of uncertainty that surrounds the businesses we invest in, that it may not be wise to assume that continued successful decision making is

inevitable. We need to innovate, adapt and improve our methods to stay ahead of the curve (no pun intended).

Complete closure covering 80% of GDP is quite a new thing, not to mention the great variance across sectors and regions and activities, so we are also stressing that our clients and partners should think differently. Conventional wisdom and high self-confidence are fine things, and we strongly favor human brain power over quant alternatives for long-term strategic decision making, but we are perplexed that world class investors and CEOs don't seek to combine their two most powerful weapons – human insight and quantified scenarios – to drive their most important decisions with conviction.

Investing, and life in general, usually favors the prepared, so at BPN we have focused on helping our clients combine their strengths – insightful research, deep networks, and great decision-making – with ours – rigorous scenario analysis that is powered by a team and software rooted in probability and logic. As we move forward through this environment and into the post COVID-19 frontier, which we certainly will, it will be important for investors to embrace this new reality. BPN is positioned well to support them as they marry their tried and true investment process with our team, analytical frameworks and technology.

> History suggests that decisions made in the next 6 months can make or break the returns for many PE Firms.

Human history has reinforced that adaptability is essential to overcome the toughest of circumstances. Investment history suggests that decisions made in the next 6 months can make or break the returns for many PE funds. So, as a PE fund manager, why not have every tool at your disposal to help you continue to outperform in this changed environment? Two simple ways to describe how to make money are 1) to invest behind a powerful theme or trend (but don't overpay!) or 2) to express a contrarian view about the future outlook (and be right!). We encourage you to continue leveraging your expertise with the power of BPN in your corner.

Very Truly Yours,

Mike

How Can BPN Help Private Equity Funds?

Pre-COVID-19, many funds followed an extremely successful investment process that involved looking at spreadsheets, preparing memos, and holding committee meetings (formal or informal) to make the call on investments. Well, as Bob Dylan famously sang, we believe "The Times They Are A-Changin'."

Private equity investors, now more than ever, need to understand a wider range of scenarios, with respect to the outlook for operating cash flows of their portfolio companies and with respect to capital market conditions. Since the world is multi-dimensional, the analysis needs to follow suit. While spreadsheet models are good at laying out a single forecast in granular detail, they can't help investors connect how uncertainty amidst changing conditions impacts the investment case. What really matters is not just a single case of what might happen, or even a few ad-hoc cases, but what are the odds of different things unfolding.

Businesses are living entities. They are constantly evolving as their business shifts, competitive dynamics reset, and market conditions change. From an investment standpoint, entry price is key, changes in cash flow matter and the exit multiple completes your return. PE investors use their brains and experience to simulate this via investment memos, spreadsheets and meetings, but the traditional process, even for just a few cases, is limited and nearly impossible to maintain over the lifetime of an investment unless you have BPN in your corner. We have helped numerous clients augment their existing process with our team and technology.

How can BPN help you augment this traditional process? Starting with your Fundamental Investment Stories like management slides and investment memos, BPN Business Analysts with private equity experience leverage the BPN Software Platform to provide you an invaluable complementary perspective of your Stories Quantified in Scenarios. Your team members can also learn to use the software to do this themselves. Read on to learn these steps.

Fundamental Investment Stories **+** BPN Business Analysts **+** BPN Software Platform **=** Stories Quantified in Scenarios

Fundamental Investment Stories

The basis of our model is the fundamental research and analysis put together by your team and then added to by ours. Under NDA, we excerpt from any spreadsheets, memos, pitch decks, whiteboard notes, or fundamental insights you are using to drive your decisions. We often get data room access, conduct additional desk research (similar to yours with primary and secondary research), complemented with natural language processing and data analytics tools.

BPN Business Analysts

While not sector or subject matter experts, our business analysts work alongside your team to complement your research and build an interactive strategic model of your current or prospective portfolio company. Led by Mike Ryan, who was a partner at Goldman Sachs and investment committee member at Harvard and is an active private investor/board member, our analyst team has similar skills and training to the investment professionals you hire, making communication very efficient. We take your inputs, complement them with additional research and critical thinking, and produce the interactive strategic model in our patented BPN Software. We maintain the model and continue attaching new evidence throughout the diligence period and for the entire holding period of the investment, if you desire.

BPN Software

Peter Moore worked with Mike at Goldman and Harvard and also spent over 10 years working with the benefit of National Science Foundation grants to build out the platform that has become the backbone of BPN. Our patented software combines research management and scenario modeling using graph database architecture. The BPN Feed enables you to easily see and comment on the assumptions driving the model, browse the attached research and interactive output to hone in on specific cases, and make investment decisions. We can train you to use the BPN software directly, or we can maintain the models while you browse interactive reporting and drive the key assumptions.

Stories Quantified in Scenarios

This process brings clarity to the widening cone of uncertainty that investors and their portfolio companies are dealing with today. COVID-19 did not create the need for logical scenario analysis, but it did make this need vividly clear. We call our process "Quantifying Stories in Scenarios."
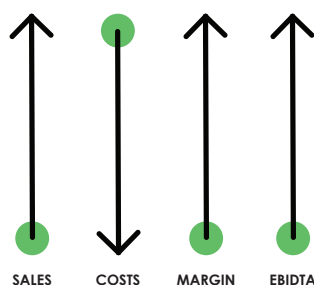
At BPN, we believe that conducting a comprehensive scenario analysis for all investments and portfolios is crucial to making the right investment decisions. Investors that build out 3 to 5 cases or flex their assumptions rigorously are already on the right track, but we believe that the future for investment analysis is going to be in more comprehensive, logical, and probabilistic scenario analysis.

While any good model must capture the investment thesis, including changes to capital structure, margin profile or unit growth, the odds of achieving poor, attractive or spectacular returns still centers on entry price, cash flow growth and exit multiple across a wide range of logical scenarios. Within the BPN platform, we leverage your insight around the change thesis into specific, logical cases and build a model with a full 3 financial statements for each case. We also simulate exit multiples by forecasting how expectations for growth, eventual profitability, and scale may change as the management team delivers execution results over time, and we consider the impact of changing capital markets conditions.
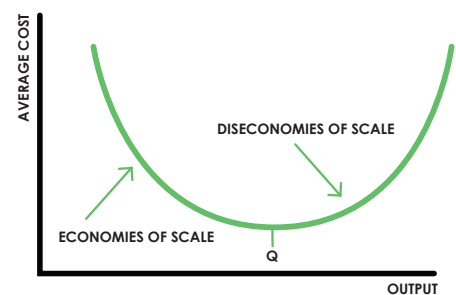
Growth   Profitability   Scale

Risks to PE Post COVID-19

The gaps in the traditional analysis process that existed prior to the pandemic have only grown wider as the market has been tossed into turmoil. We understand that despite the obvious importance of the macro drivers, the real task is in driving the analysis down to the single company level, taking account of the unique aspects of each business, its balance sheet, and its competitive positioning.

The range of regimes and reactions can not be fully captured and quantified in the traditional spreadsheet, memo, meeting process we saw pre-COVID-19, but we have modules that we can tailor to any specific company around (i) how long the COVID-19 lockdown lasts, (ii) what the recovery curve looks like, and (iii) what changes might result in the long term demand outlook. For some companies, COVID-19 has been a major positive (delivery, cloud and WFH), for others it is an existential threat (levered travel and hospitality), and for many it is largely a substantial but temporary effect. The point is to consider the wide range of uncertainty properly in the context of your deep insight about a particular business, and then to think about what that business is worth under a range of logical and probabilistic scenarios.

> PE Firms need a framework for understanding how their companies and prospects may be affected by the COVID-19 lockdown and what capital markets scenarios could mean for future returns.

PE portfolio companies are forced to navigate a new world, initially evaluating liquidity and expense management issues for which spreadsheets are sufficient, but then considering the wider range of options to maximize their odds of success "on the other side" of COVID-19 where BPN's frameworks can help much more. The strong are able to play offense (albeit prudently) while the weak may be forced to merge or fold. PE firms tend to focus first on advice, support and potentially capital for their existing portfolio companies, and they may be looking to invest opportunistically to capitalize on "fat pitches" which crisis conditions sometimes offer up. Either way, PE Firms need a framework for understanding how their companies and prospects may be affected by the COVID-19 lockdown and what capital markets scenarios could mean for future returns.

As an investor, you are looking to better understand questions like:

• How long will this disruption last?
• How will this affect demand and market sentiment for our products and services?
• Will this affect our growth projections and timeline?
• What is the impact on margins, credit ratios, and covenants?
• Should I be putting capital to work and how much to pay?
• How will this affect our exit multiple and equity value?

Given the uncertainty and multi-dimensional factors involved, it is nearly impossible to quantify the relevant odds and make high conviction decisions using only traditional tools and process.

How Traditional Investment Decision-Making & Thinking Needs to Change

Investors and their portfolio companies are constantly forced to watch, read, listen, and react to the world around them. Because almost nobody predicted a COVID-19 pandemic in their analyses, many investors may feel their only course of action is to simply react to the hand they are dealt.

This is not necessarily the case. Armed with a more comprehensive scenario analysis, investors are able to prepare and react with more conviction. You may not be able to predict the exact case, but if you are able to see and analyze with a degree of certainty a wide range of probabilistic scenarios, you can have more logical and comprehensive plans in place to react to any major changes in the market. The cone of uncertainty may be wider than ever in the post-COVID-19 world, but making better investment decisions amidst that uncertainty is obtainable with the right team and tools leveraging your insight.

In order to get a better understanding of the market and potential outcomes for an investment, a rigorous scenario framework and continual updating of your key assumptions will allow you to analyze cases across a wider spectrum of uncertainty.

The typical approach of discussing 3-5 cases is not enough, especially when the world involves a wide range of uncertainty and multiple combinations of drivers.

Private equity investors often have the added advantage of governance control, enabling them to implement changes in leadership, strategy, expense profile and capital structure at the portfolio company level. Understanding how these levers can affect the growth and profitability of a company, and linking that to exit multiple and returns, requires thoughtful scenario analysis. The scenarios must be logical and probabilistic so investors can properly weigh their impact and act with more confidence within a difficult market.

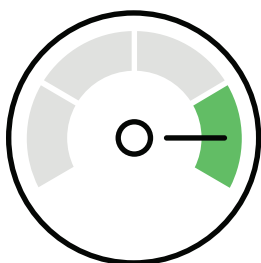## Why BPN Works, Especially in the Post COVID-19 World
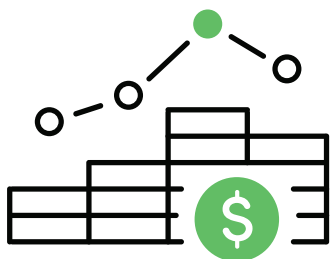
Attach and map research directly to the key drivers in a traditional three statement financial model with BPN's patented software platform
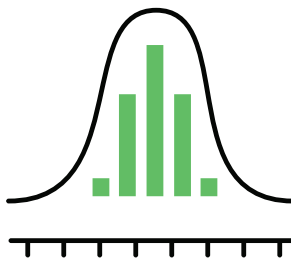
Model scenarios for actual cash flows and how multiple may change over different time horizons

Calculate odds of upside and downside to returns based on your insight

Rate the impact of key drivers and test your conviction on them over time and under different conditions/frameworks

Keep the model 'living and breathing' with new research in the BPN Feed

Case Study and Further Analysis

For more analysis and information please check out www.bulletpoint.network