Introduction

Much has been written about infrastructure alpha, sometimes referred to as non-investment alpha, but little practical guidance has been available on how to bring it to life. As a 30-year COO/CFO, or non-investment professional, I spent my career bringing infrastructure alpha to life in long-only and alternative asset managers. My mission was simple. Create cost effective infrastructure that allowed my investment colleagues to trade what, when, where and how they needed to generate investment alpha for our investors at a lower unit cost and lower operational risk. This first paper introduces how to measure and manage infrastructure alpha in Investment Operations and is the first of a nine-part series that will explain a simple way to measure, track and discuss infrastructure alpha across all infrastructure functions. Subsequent papers will extend these concepts into eight additional non-investment functions.¹

The Critical Relationship between Investment and Infrastructure Alpha

The alternative asset management industry is growing and more asset managers are hunting for investment alpha than ever. As a result, original and profitable investment ideas are harder to come by and above average returns are increasingly found by investing into more complex and idiosyncratic investments. The ability of non-Investment Professionals to evaluate, enter, manage and ultimately exit more and more complex investments is a critical capability for any asset management organization. Without highly competent investment infrastructure, managers may miss the chance to invest in the best ideas and worse, increase operating and financial risk. Simply look back at some of the more high profile examples of how damaging operating risk is to firms when the complexity of the front office exceeds the back-office’s ability to manage it. These would include

¹ Future INFRASTRUCTURE ALPHA papers will include a more in-depth look at Fund Accounting, Management Company Accounting, Tax, Risk Management, Compliance, Legal, Investor Relations and Human Resources
DB Zwirn and Amaranth, to name a few. And as the cost of supporting complex investment processes continues to increase as investors and regulators require more from these groups the very financial scale a manager needs to contain costs, counter fee pressure and maintain or grow net management fees is elusive. Infrastructure alpha is critical to company owners but the experience to date has been disappointing, if not downright frustrating.

Let’s start our examination of infrastructure alpha with a baseline definition. In my words, “infrastructure alpha is a financial benefit created by non-investment teams that can be measured and then managed to help companies grow assets and profits.”

In pure financial terms, we suggest using the marginal contribution to profit (MCP) approach to determine infrastructure alpha. MCP is created when non-investment functions reduce the unit cost of a particular unit of work without increasing inherent operational risk. While units of work vary in terms of complexity, volume and standardization, units of work can be measured in every infrastructure function.

**Example-Investment Operations-Trade Processing**

Let’s illustrate how to calculate and examine MCP in Investment Operations, a function that is common to all asset managers. Between period 1 (P1) and period 2 (P2) assume your Investment Operations team processed 50% more trades, held its compensation growth to 5% and maintained last year’s standard of quality. Have you created infrastructure alpha? The answer is YES! Let’s do the math. Your team of 15 costs $2.25mm on a fully loaded basis. Last year you processed 100,000 trades at a cost of $22.50 per trade ($2.25mm/100k). This year your team’s cost only increased by 5% (pre-bonus) to $2.362mm and they processed 150,000 trades.

**Formula:**

\[(\text{Change in Unit Cost}) \times (\text{P2 Volume}) = \text{Marginal Contribution to Profit (MCP)}\]

\[(22.50 - 15.75) \times 150,000 = \$1,012,500\]

So in other words, had you hired staff equal to volume growth you would have hired an incremental 7.5 heads @ 150k each or $1,112,500 (15 FTE x 50%). You processed the new volume with a 5% cost increase of $112,500. So you saved the firm the difference of $1,012,500!

**The Impact of Operating Risk on MCP**

It is important that you evaluate the generation of MCP against the level of “marginal contribution to risk” (MCR) that may be created across the increased volume processed by fewer staff. For example, if the staff processed more volume but the level of failed trades increases as a result, you may be trading lower cost for higher financial risk. So MCP gains must be evaluated against any incremental financial risk inherent in greater volumes. This condition can be evaluated by examining incremental MCP against the incremental risk associated with higher fail rates.
Illustration of Higher Operational Risk

Assume that trade fails equal 1% of all P1 trades processed and in P2 your fails rates increase 10% to 1.1%. Assume your average trade value is $2mm and assume the cost of a buy-in (fail cover) is equal to 101% of the fail value, which is the average volatility of over 3 days.

Incremental Operating Risk Calculation

Incremental Risk of 50,000 x 1% = 500 additional fails
500 additional fails at 2mm = $1,000,000,000 aggregate fail notional value
$1,000,000,000 x 10% change in MCR = $100,000,000 x 1% by in risk = $1,000,000

Using the above logic and assuming that 100% of trade fails went against you, combined with MCP, your risk adjusted gain is $1,012,000 less $1,000,000 = $12,000.

The purpose of the above example is simply to illustrate that true infrastructure alpha must be measured against the potential operating/financial risk inherent when processing greater volumes at a lower unit cost. While the real financial risk is far lower than the $1mm illustrated above, the Investment Operations leader must express the creation of infrastructure alpha on a risk adjusted basis.

The Impact of Capacity on MCP

While calculating risk adjusted MCP can be fairly straight-forward, you should incorporate a capacity factor into the calculation of MCP to validate your initial MCP calculation. When company’s invest X dollars in their infrastructure they assume it will support Y amount of business growth. Make sure that you and your management team agree on the capacity of your team to eliminate future debate over what it should be. Capacity is defined as “the amount of work that can be done by your P1 headcount.” Determining the amount of capacity is key to calculating “true” MCP.

In the prior example, let’s insert a capacity factor into our MCP calculation. Let’s assume your P1 team was built to support 25% growth in trades. MCP is then calculated as follows:

Formula:

(Change in Unit Cost) x (P2 Volume) = Marginal Contribution to Profit (MCP)
(18.00-15.75) = $2.25 x (150,000) = $337,500.

The change in unit cost is $2.25 because we used a P1 unit cost assuming full capacity of 125,000 units. P1 cost of ($2.25mm/125,000) = $18.00

In the above case, the Investment team increased the net profits of the firm by $337,500 because they absorbed the additional 25,000 trades without adding headcount.

The Impact of Benchmarks on MCP & Infrastructure Alpha

In our industry, we typically benchmark ourselves against our prior year’s results. What if I told you despite the strong MCP results achieved by the Trade Operations in our example, your peer's trade
cost per unit is $12.50 or 20% lower than yours. Might your view of MCP be different? I suspect it would be because you are spending $437,500 more to process 150,000 trades than your peers ($15.75-$12.50 x 150,000). True infrastructure alpha is created by outperforming the market, not necessarily outperforming oneself.

**Conclusion**

Using MCP is an objective and empirical way to determine if your non-investment teams generate infrastructure alpha. The calculation of MCP needs to include risk and capacity factors and market benchmarks to ensure the MCP calculation accurately measures infrastructure alpha. Non-investment teams that create infrastructure alpha provide their organizations with the financial scale needed to improve net management fees that can be re-invested in the business and off-set fee pressures.

**About Convergence**

Convergence provides a platform that provides data, benchmarks, analytical tools and models and advisory services to the alternative asset management market. Our clients include the world’s leading asset managers, audit firms, administrators, colleges and universities and investors all of whom contribute to our product development agenda. Our founders held senior C-Suite positions building the infrastructure for high growth and complex asset managers and servicing companies.

Convergence’s leaders have helped the most complex investment organizations grow by implementing people, process and enabling technology that has created infrastructure alpha.

For more information on how Convergence’s products and services can help you create Infrastructure alpha please contact John Phinney @ jphinney@convergenceinc.com, George Evans @ gevans@convergenceinc.com or Joe Dello Russo @ jdellorusso@convergenceinc.com.