A JOURNEY OF INNOVATION

"The importance of allocation has been grossly underestimated," says Pranay Gupta, CFA, co-author of a new book on multi-asset allocation

By Nathan Jaye, CFA

Everyone knows that multi-asset investing is on the upswing. "Assets managed in such strategies are growing at one of the fastest paces in the industry worldwide," says Pranay Gupta, CFA, formerly chief investment officer for Asia at ING Investment Management and manager of a global multi-strategy fund for Dutch pension plan APG. In their new book *Multi-Asset Investing: A Practitioner's Framework*, Gupta and co-authors Sven Skallsjö and Bing Li, CFA, set out to answer questions about which practices and ideas actually work. In this interview, Gupta explains how the relentless quest for alpha has made allocation an under-appreciated and "under-innovated" skill, shares insights into replacing asset allocation with what he calls "exposure allocation," and discusses why the standard model for making investment decisions has "exactly the wrong emphasis from a portfolio risk and return standpoint."

Why is multi-asset investing so popular now?
If you look at investment management today, all plan sponsors, consultants, and asset managers—and even individual portfolio managers and analysts—are all structured with an asset class demarcation of equities or fixed income. We have equity portfolio managers and fixed-income portfolio managers. We have equity analysts and credit analysts, and we have equity products and fixed-income products.

This industry structure worked well historically, as equity and fixed income were not highly correlated and allocation to these two asset classes could result in a diversified portfolio and you could earn risk premiums. It made sense. But over the past 10 years, the correlation between asset classes has increased. Financial engineering has created products which are in the middle of the traditional asset classes—hybrid products across equity, fixed income, and alternatives.

So a clear distinction doesn't hold true anymore. The rising thesis is that we should be looking at our portfolios as multi-asset-class portfolios. That's caught on over the past few years. Assets managed in such strategies are growing at one of the fastest paces in the industry worldwide.

What's covered in your book?
The field of multi-asset investing is just beginning its journey of innovation. This book is meant for the professional investor, and every chapter in the book has a number of ideas which are different from what I've seen across the industry. In the first chapter, we cover the traditional model—the way the world has performed with traditional asset allocation in the past five or six decades. In the remainder of the book, we examine individual components of the traditional allocation process and show how each facet of the allocation structure can be improved. These techniques are applicable at multiple levels—from a plan sponsor portfolio, sovereign fund, or pension plan making a strategic asset allocation decision to a hedge fund managing a macro strategy. They are all multi-asset investment decisions. Even individual retirement accounts are multi-asset portfolios, where allocation is done across asset classes.

There are two types of innovations in this

book. One is at the conceptual level, where we discuss the broad concepts of how we should structure multi-asset portfolios. The second is at the implementation level, where we detail innovative techniques, such as allocation forecasting processes and managing tail risk and designing stop losses. Some of the chapters are intensely quantitative and others are conceptual and qualitative.

Pranay Gupta, CFA

Does asset allocation get enough respect?

We've all known for a long time that asset allocation is responsible for the majority of portfolio return and risk. It's well accepted that, say, 80% of the risk and return of the portfolio comes from allocation and only 20% comes from security selection. But when you look at the structure of the industry, the resource deployment is exactly the reverse—that is, 80% of industry professionals are stock selectors and bond selectors. Less than 20% are involved in allocation.

The whole of the industry's focus has been the search for alpha. It seems quite odd, given that alpha only drives 10% to 20% of the return and risk of an asset owner's portfolio. As I started managing various kinds of multi-asset portfolios, it led me to question the traditional process of asset allocation, and I began exploring methods to try and improve what is conventionally done in a 60/40 balanced portfolio or a strategic or tactical allocation decision.

The importance of allocation has been grossly underestimated, and allocation is an under-innovated skill. In our book, we detail a number of innovations we have created and tried, but there are probably a lot more that can be made. Unlike security selection, where there's been a lot of innovation and progress made as a result of the number of people focusing on the skill. But not many people are focusing on allocation skill.

Are organizations misdirecting their resources?

If you look at any plan sponsor, you normally have a very small team which does the asset allocation and puts it into asset classes. Then you have an army of people who go and hire and fire dozens of managers and perform due diligence on them. This is exactly the wrong emphasis from a portfolio risk and return standpoint.

We take great pains in selecting multiple managers for diversifying alpha, but the asset allocation in the plan sponsor is done by a single group (i.e., a single strategy done at a single time horizon). We don't diversify our allocation methodology. We don't harness time diversification. What if we did exactly the opposite? Suppose we took 80% of the resources in the plan sponsor and dedicated them to multiple ways of doing allocation and manager selection was just effectively a side effect?

In the book, we demonstrate how creating a multi-strategy structure for the allocation process and not focusing on the implementation as much can lead to a better portfolio. Discussions such as active versus passive strategies or the usefulness of fundamental indexation and smart beta then become somewhat obsolete.

What's your experience in managing multi-asset funds?

I managed a global multi-strategy fund for APG, the Dutch pension plan, from 2002 to 2006. We grew the fund from a very small base to a multi-billion-dollar fund. Over this period, we experimented with many different techniques of how to manage large, multi-strategy, multi-asset funds. Subsequently, when I was chief investment officer for Asia at ING Investment Management and Lombard Odier, we implemented a lot of these techniques in managing an asset base of about US$85 billion across all asset classes.

The traditional way one arrives into an allocation function is as a macroeconomist or strategist. But I happened to stumble into allocation after managing each asset class separately from a bottom-up perspective. Having gathered the real ground experience in managing every single liquid asset class, as the team size and asset size became larger, I got thrust into managing the allocation, risk, and portfolio construction of these multiple strategies in a combination. This was the perfect breeding ground for innovation.

What's your definition of commoditized beta and non-commoditized beta?

We have been guided repeatedly to separate alpha and beta in our strategies, and told that we should strive for alpha. Actually, alpha and beta are very alike; they are both return distribution of assets. The only difference is that beta can be gathered by inexpensive derivatives which provide exposure to specified factors (such as market cap, value, etc.), while alpha as a collection of exposures is not available with such instruments. This distinction keeps evolving as more and more alpha exposures today become available as beta exposures in a liquid, inexpensive form.

IT'S WELL ACCEPTED THAT, SAY, 80% OF THE RISK AND RETURN OF THE PORTFOLIO COMES FROM ALLOCATION AND ONLY 20% COMES FROM SECURITY SELECTION. BUT WHEN YOU LOOK AT THE STRUCTURE OF THE INDUSTRY, THE RESOURCE DEPLOYMENT IS EXACTLY THE REVERSE.

I call what is hedgeable "commoditized beta." Equity market risk is completely commoditized by an equity future. As more and more betas are available in a cheap, liquid, derivative form, they become commoditized. The remainder are non-commoditized and are classified as alpha.

So in managing portfolios, we propose that, instead of doing asset allocation, what if we do exposure allocation, where exposures are in multiple dimensions, not just equity beta and credit beta? If you allocate to this richer set of exposures to construct a portfolio, you enhance diversification where it is required most.

You argue that the definition of equity risk premium should be adjusted for allocation purposes. Why?

The academic way of justifying investing in equities is by the concept of the equity risk premium, which is the long return on equities above a risk-free rate.

But if you have a portfolio which includes both equities and fixed income, the actual reason you would invest in equities is not the return on equities above cash but the return on equities above bonds. Look at this from a company's perspective. A company has the option of raising capital through debt or equity. When a corporate treasurer looks at how he should raise capital, he evaluates whether it is cheaper for them to take on debt or to raise more equity. Our proposal for portfolio management is exactly within the same context, except that we are maximizing return, not minimizing cost.

How do you apply this in practice?

From an allocation standpoint, we want to have mutually exclusive and ideally uncorrelated buckets. So we separated equity risk premium from credit risk premium and from country risk premium and cash. It is a laddered structure for defining what risk premium is—in order to build better silos for allocation.

Then we innovated the allocation process itself. There's lots of debate about whether risk parity is better or fundamental allocation is better. People have these philosophical debates because they have only one allocation process. In the structure we're proposing, this question is obsolete because all of these allocation methods will have value at certain points in time. Because they would be uncorrelated with each other, a framework where we use all of them—in a multi-strategy allocation structure—will give the benefit of strategy diversification and time diversification.

Risk parity will work at some point in time, and so will fundamental allocation and long-term risk-premium allocation. Let's use all of them as different buckets, because you can do allocation in many different ways. Debating which allocation strategy is better is a misplaced discussion.

What is your idea for composing consensus estimates for allocation recommendations?

If you want to know the consensus expectations or rating for any stock in the world, there are plenty of databases out there which will give you that information. Similarly, for economic numbers, there are databases which collate all the forecasts from economists on, say, the US Federal Reserve's rate hike and how many people are saying the Fed will hike and how many are saying it won't. You have a range of views, but you also know the consensus.

But there is no database available today which collates the views of different sell-side strategists on recommended allocation stances. Every sell-side house has a strategy team which allocates across countries and sectors and currencies, just like they have corporate research analysts for earnings, but no one collects their views and puts them in an organized manner.

If allocation is important, then why don't we do that? These strategists are putting out reports, but there's no database which collects all this information and uses it to say, "Here's what the consensus allocation to this kind of sector or country is." Surely that would have value, just like company earnings estimates have value.

How should firms structure a multi-asset approach?

As multi-asset investing is becoming more important, every asset management firm has gone on a rapid increase to bolster its capabilities in this area. But everyone has done it very differently. Everyone has a different take on what multi-asset means. In the book, we highlight the different approaches that "multi-asset" can mean.

Firms should be clear about how they are positioning their multi-asset business. What are the capabilities that you need to have? And what is beyond your capability? You can't be all things to all people.

Why do active managers investing in Asian equities underperform relative to active managers investing in US equities?

We compared active managers in Asia against active managers in the US. The data suggest that in the US, roughly half the managers underperform and half the managers

outperform their benchmark. In Asia, more than three-quarters of active managers underperform and only about a quarter outperform. And of that quarter, less than 10% outperform on a three-year basis. So the quality of active management in Asia is very poor compared with the US.

To understand why, we analyzed possible sources of returns for active management to exploit in both markets, and we found that approximately 82% of returns in US equities come from security selection—only 18% of returns can come from allocation decisions. In Asia, 66% of returns can be attributed to the allocation decision, not from stock selection. Yet if you talk to most active managers in Asia, most of them will tell you, "I'm a stock selector. I go and pound the pavement and pick stocks in each of these different countries."

Our hypothesis is that active managers in Asia are focusing on the security-selection decision, which is a smaller source of returns in Asia, and ignoring allocation decisions, which is the bigger source. If two-thirds of the returns in Asian equity markets are coming from allocation and active managers there are largely ignoring this decision, then maybe that's the reason why the majority of active managers in Asia underperform.

When you analyzed manager skill versus luck, what did you find?

In 2007, when the quant crisis happened, there were managers who were on the ball and decreased risk on the day when the meltdown happened in August.

But because they decreased risk (which was the right decision), they didn't participate in the rebound the next day and ended up with a negative August 2007 performance number. Managers who were on the beach and didn't know what was happening—and didn't actually do anything to their portfolios—rode through the week and had a positive return. But that was return purely by luck. Differentiating skill from luck is the most important part of judging the value added by an active manager.

In the book, we propose a framework for how active managers can analyze their own portfolio decisions and examine which of their decisions are skilled and which ones [are the result of] luck (which may not repeat itself).

How important is the management of tail risk in multi-asset investing?

If you look at most of the risk parameters we use in modern portfolio theory, they are based on the concept of end-of-horizon risk—that is, if you hold an asset for x months or x years. When we calculate the volatility of that asset, it's based not on what that risk would be *across* the period but on what it would be at the *end* of the period. The practical reality—for both individuals and institutions—is that the intra-horizon risk is a much greater determinant of investment decisions while you are invested in any asset. The current portfolio management framework largely ignores that.

Suppose you buy something and it goes down 50%. There is a real impact on how you will behave towards that investment, and that impact is a real risk which needs to be accounted for. In fact, in many countries, the regulator will come and tell you to de-risk the portfolio and sell that asset if you go beyond a specified asset liability gap at any point in time. But none of our risk parameters actually capture (or account for) intra-horizon risk.

So we went about creating a new risk measure, which is a composite of intra-horizon and end-of-horizon risk. We did this for each asset in our portfolio. That changes the way one looks at the risk of any asset, or the risk of the overall portfolio.

Then we applied it to defining custom stop-loss levels for decisions at every level—at the asset level, sector level, and asset class level. We found we were able to manage portfolio drawdown much more effectively, and it helped us a great deal practically in managing with real intra-horizon risk.

You've found that manager compensation can incentivize portfolio blow-ups. How?

The conventional wisdom is that a hedge fund compensation structure (where the asset management company gets 20% of the upside) aligns the interests of the asset manager and the asset owner. It seems logical that they say, "I don't make money unless you make money." That's how it's sold—the performance fee creates the alignment.

But when we looked at how performance-fee incentive structures change the behavior of portfolio managers, we were surprised. We found that there is a greater propensity for the manager to take excessive risk when the portfolio starts to underperform. When we played this behavior out over time and examined what happens to the portfolio return distribution, we found a scenario with outperforming funds at one end and funds which blow up at the other end of the spectrum.

The performance fee incentivizes these blow-ups. Our hypothesis is that while performance fees can incentivize alignment of the upside, they're also a significant determinant of why hedge funds blow up.

How has your approach to multi-asset investing evolved?

I didn't set out to write a book. All of these chapters have been written over the past 10–12 years. As I managed portfolios, I started coming across problems where the traditional solution seemed inadequate, and I thought there was room for innovation. My co-authors and I started experimenting and tried to find novel solutions. The book came about over the past six to nine months as we finally set about collating everything we have done over the past decade and making a cohesive argument. Everything in the book is actual solutions we implemented to practical issues we faced in managing portfolios.

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