Why Portfolio Management is replacing Fund Management

A global overview of the disintermediation trends affecting traditional fund management

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WHY PORTFOLIO MANAGEMENT IS REPLACING FUND MANAGEMENT

A Summary

Four key points that demonstrate that Active ETFs and new age Risk Budgeting technology are revolutionising the investment management industry.

1 MERGERS AND AN EXODUS OF ASSETS FROM TRADITIONAL FUNDS

One in six asset managers will go out of business or merge with a bigger group by

2027

PwC Survey

$640bn

outflow from mutual funds in first 6 months of 2022

(20% of all mutual fund assets)

Active ETF wrappers accounted for **$51.8bn** of net inflows, putting them at a total of **$385bn** globally

Financial Times/ Morningstar

Money is leaving traditional funds and moving into new portfolio types and non-fund wrappers - affecting traditional asset managers.

Risk-budgeting technology enables advisors to use client data to create 'customised portfolios' that meet the needs of individual investors in a process called 'mass customisation'.

Investors can decide - how much risk they want in their customised portfolio and can make changes as their life circumstances change.

2 TECHNOLOGY ENABLES MASS-CUSTOMISATION

3 IT'S ALL ABOUT MANAGING RISK FOR INDIVIDUAL INVESTORS

TRADITIONAL METHOD

RETURN MANAGEMENT

The fund relies on past performance to attract investors and has a mandate tied to beating outdated benchmarks. One-size-fits-all solution with no ability to allow investors to 'pivot' in the event of a financial crisis or change in life circumstances.

VS

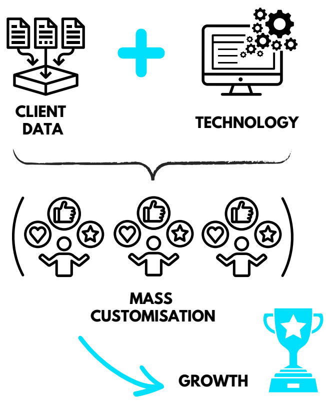
NEW-AGE METHOD

RISK MANAGEMENT

Modern risk management technology enables advisors to monitor and adjust each clients' individual trajectories with modular and mass customised solutions (aka Risk Budgeting). Wealth grows faster by minimising loss than by trying to beat benchmarks.

4 TODAY'S PRODUCT MANUFACTURERS ARE ADVISORS, INTERMEDIARIES AND, ULTIMATELY, INVESTORS

Advisors and other intermediaries **own rich, dynamic client data.** **Technology enables** those with deeper client data to **deploy new mass-customisation** capabilities much more cheaply. Those with existing distribution and client data can, and will, **build their own investment products and advice process** at the expense of those who don't have access to data and can only offer mass-produced funds.



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How Active ETFs and new age Risk-Budgeting technology are revolutionising the asset management industry and its traditional business models

INTRODUCTION:
Something big is happening in Fund Management

Something is different in traditional investment management. The landscape is changing - powerful structural forces are at play and the winds of change picking up. This report aims to shine a spotlight on the tectonic shifts that are re-shaping the investment management industry.

All role players in the investment management industry are experiencing the same sense of trepidation about where things are going as business models and value propositions are being challenged, from fund managers (manufacturers) to advisors (intermediaries) to wealth managers and investors (consumers).

But signs of change have been there for a long time. For example, mergers and consolidations of major, blue-chip asset management firms, many of whom have been around for decades, are rapidly escalating. PwC's recent global survey of 500 asset management firms found that three-quarters are considering merging or acquiring a competitor. PwC also predicted that one in six asset managers will go out of business or be bought up by a bigger group by 2027.

In 2022, the Financial Times reported that $640bn of net assets left global mutual funds in the first 6 months of 2022 alone. According to Morningstar, this makes up about 20% of all mutual fund assets. Further into this report, we will present other data sources that support this exodus.

So, where did the $640bn go?

TRADITIONAL FUND MANAGEMENT IS CHANGING

1 IN 6
asset managers will go out of business or merge with a bigger group by
2027
PwC

$640bn
20% of all mutual fund assets
outflow from mutual funds in 1st 6 months of 2022
Financial Times/ Morningstar

Much of the money that left traditional mutual funds went into new types of portfolios and non-fund wrappers, like actively and passively managed ETFs, structured products, direct indexing and model portfolios. Relatively new Active ETF wrappers alone accounted for $51.8bn of net inflows, putting them at a total of $385bn globally – which means that Active ETFs are now growing much faster than passive ETFs.

WHAT IS THE RATIONALE BEHIND THIS TREND?

Many intermediaries (advisors and wealth platforms) are replacing mutual funds that are exclusively available on private fund-supermarket or LISP platforms (Linked Investment Service Provider) with highly customised portfolio solutions, using exchange-listed building blocks like passive and active ETFs.

THE REASONS FOR THIS SHIFT ARE TWOFOLD

Firstly, traditional mutual funds have become highly commoditised and mass-produced solutions (like balanced funds, endowments, house-view portfolios and other 'ready-made' fund solutions) and are very hard to differentiate and customise. These commoditised fund solutions are where the bulk of revenue lies for traditional fund managers - and it is shrinking fast.

Secondly, wealth management platforms are hoovering up assets from fund management platforms due to a revolution in risk management technology, known as 'mass customisation'.

Primarily, this seismic migration of assets isn't about fees or active versus passive arguments. It's about the fact that the latest risk-budgeting technology enables much more precise, bespoke financial journeys for end investors - something that traditional, non-customisable mutual funds are unable to deliver. Fund management is not the problem, but traditional, one-size-fits-all funds might well be. The evidence seems to point to portfolio management rapidly replacing fund management.

> The latest risk-budgeting technology **enables much more precise, bespoke financial journeys for end investors** - something that traditional, one-size-fits-all mutual funds are unable to deliver.

Mass Production vs Mass Customisation: The Evolution of our industry

"If you want to win the war, analyse the battleground and not the enemy."

(Samurai proverb)

It is not always obvious how our industry (ie: the battleground) is changing. But brace yourself for rapid change and how investment management businesses (both institutional asset management and wealth management) will be affected. Understanding these industry changes is potentially more important than understanding your competition (ie the enemy).

One of the most visible changes to our industry battleground in recent years has been how rapidly assets have moved from higher cost, actively managed funds to lower cost, passive index solutions. This war on fees has led to some of the biggest and oldest asset management firms having to lower fees or, in some cases, merge to stay viable.

However, a much bigger and silent industry battleground is unfolding as we speak. The major shift from traditional asset management products to wealth managed solutions will be even bigger than the move to passive index products. The reason behind this shift is because the role of the product manufacturer is shifting away from selling traditional funds to managing custom portfolios.

Based on evidence globally, advisors are rapidly becoming the lead manufacturers of more personalised solutions. The key reason why advisors, wealth managers and Discretionary Fund Managers (DFMs) are increasingly manufacturing end-to-end investments and retirement solutions is because it is the advisor, and not the fund manager, who is the only intermediary who can understand the client's individual needs and is able to customise or adapt portfolio solutions to suit these changing needs.

Intermediaries are manufacturing their own portfolio solutions that are more customisable than traditional funds

Let us take an example from the retail industry. Sports stores are no longer buying in as many branded goods because the stores themselves can now manufacture their own 'house' brands by outsourcing to manufacturers that can 'mass-customise' the goods, exactly in the way that the stores want them, at a better price. Proximity to the customer means that it makes more sense for these stores to make their own products, create their own brands and earn the margin themselves.

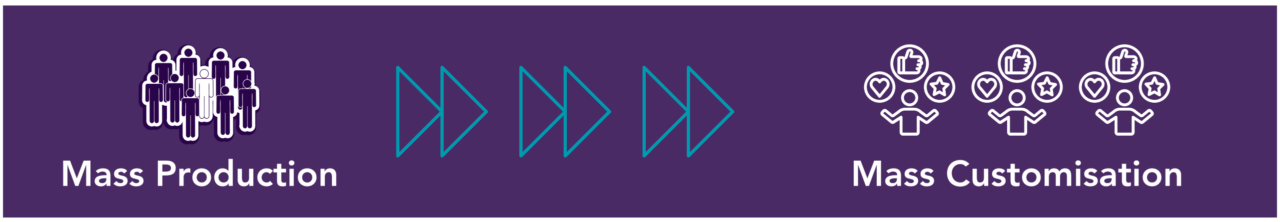
If you want your own brand of cycling apparel, you can design and have that manufactured using a phone app on Alibaba. In the same way, large investment advisors, including wealth platforms, private client stockbrokers, family offices and independent advisors, are all building their own balanced funds, equity portfolios, global portfolio solutions and are now even listing these self-branded products on stock exchanges, locally and internationally.

With the availability of sophisticated DIY platforms, we will demonstrate that these self-made, self-branded investment solutions are just as good as anything that LISPs or traditional fund managers can produce.

So, with the help of new portfolio and risk management technology, new portfolio wrappers coupled with new direct distribution channels via listed products, the trend is away from one-size-fits-all funds. This shift will pose major challenges and create new opportunities for all industry role players.

Today, we are seeing the shift away from the old days of 'Mass Production' of highly similar products with indistinguishable features to the 'de-aggregation' of components that, through technological advances, can be re-assembled into new modular solutions. This ability to tailor-make a bespoke portfolio solution for each investor, known as 'Mass Customisation', is being led by advisors.

Internationally, **Mass Customisation** means that you can assemble your own local or offshore investment portfolio solutions by combining new, modular,

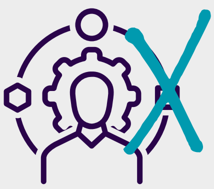


portfolio wrappers, without ever using a traditional balanced fund. These listed portfolio components such as ETFs and structured products can be 'clicked' on and off like Lego bricks for investors, enabling proper, customised risk management for the first time.

And, when markets roil because of the latest global crisis, instead of following the traditional line of 'keep holding onto your fund and never disinvest', savvy advisors can help their clients by applying the benefits of 'adaptive' mass customisation.

In the same way that Henry Ford invented the mass-production manufacturing process and said, "*you can have any colour you want, as long as it is black*", this mass-production mentality is being replaced with new customised manufacturing where you can "*choose from 27 vibrant colours to suit your personality*".

The days of Henry Ford are long gone. Today, BMW and other car manufacturers lead the auto industry in the use of sophisticated factory automation to produce precisely configured individual vehicles on highly flexible and adaptive production lines. Multi-purpose robots now make it possible to manufacture diverse items (from a single robot) at nearly the same pace of high-speed repetitive, mass-produced, traditional automation.



Traditional Balanced Funds are unable to adapt to investors' changing risk preferences

Nike has launched NikeForYou, allowing customers to customize clothing and footwear on their mobile phone. This allows the customer to become the designer as they can personalise many areas of their shoes, including the colour and fabric. The process also allows you to buy designs made by other customers.

Imagine fund managers allowing investors to customise their own balanced fund and change it when they feel like it? While this sounds completely impractical in the world of mass-production, it is already perfectly feasible for advisors (and in some cases end-investors) to build their own balanced funds using technology platforms that allow them to adapt their risk profile whenever they feel like it. New-age wealth management platforms are leaders in this space.

Clients want to be part of their own journey and they want the journey to be adaptable to their needs. Similar to buying cars and sneakers, when it comes to investments, clients demand a 'co-design' role and expect that their advisors, armed with risk technology, to be the enablers, lowering the reliance on traditional, generic, funds that can't be adapted.

However, this doesn't mean the end of fund management.

While fund managers and other industry role players (like advisors, LISPs, banks, fund administrators, wealth platforms, family offices and pension funds) will be affected by mass customisation, they can also benefit from this new dawn.

And those that benefit the most will be the ones who quickly move on from herding investors into mass-produced funds, towards creating solutions that address each client's highly personal needs and rapidly changing risk appetites. In essence, fund managers might need to become portfolio managers again.

As we will demonstrate in this report, the future for asset gathering revolves around explicit risk management, not fund management that tries to beat benchmarks.

The future for asset gathering revolves around **explicit risk management**

'Modular Adaptability'
to deliver Client Customisation

In the age of 'Mass Production', we see large numbers of highly standardised investment products, like balanced, active or passive funds, that are too highly correlated. The more funds we produce as an industry, the more similar things become, to the point where products have become indistinguishable to the end client – or highly 'commoditised'.

Our clients, the end investors, choose funds primarily based on brand and marketing, with marginal differences in pricing and too much reliance on past performance that often doesn't repeat itself. From a risk-budgeting perspective, selling mainly past performance is like driving a vehicle by only looking in the rear-view mirror.

Do advisors really know if Fidelity's Balanced Fund will be better or worse than the equivalent Schroders Balanced Fund over the next five years?

A good analogy for traditional mass-produced investment management is how medicine is prescribed. If the patient presents with a set of symptoms, they are prescribed a set medicine regime (eg: take a pink pill, 3 times a day). All patients with the same symptoms get the same medication. This is despite the fact that each patient has unique physiological responses to the same prescription.

Similarly, if you are 45 years old and saving for retirement, then you fall into the medium-risk balanced fund solution. As you approach retirement, your life savings will proportionally be allocated less to equity holdings and more to bonds and cash, whether you like it or not. Clients have no say over their investment journey and have to grit-and-hold-on to their, generic, one-size-fits-all solution.

Investors increasingly care more about their wealth journey and not just about the destination

Typically, mass-produced investment products, like balanced funds, rely on very long-term assumptions that are often wrong over medium-term horizons of up to 5 years. For example, one of the longest standing 'policy portfolios' - that typifies mass-produced funds - is a balanced fund that holds 60% equity combined with 40% in bonds.

Any rigid mix of asset classes only works over very long-periods if, and only if, the correlation between equity and bonds is quite low. However, there are many multi-year periods when this policy is wrong-for-too-long, causing clients to experience deep regret.

While our industry claims to be client-centric it remains, in reality, extremely product-centric.

End investors care, more and more, about their wealth journey and not just about the destination. Investment management that adds real value to the end client is a continuous and adaptive process, not a product-centric 'beauty contest' of choosing which fund is better than another.

As a result, advisors are now demanding more control so that they can be empowered to 'co-design' and 'smooth' their client's journey. This means that they are moving away from average products for average needs.

To use a golfing analogy, in the '**mass customisation**' scenario, advisors are leaving their role as salesperson in the golf shop and becoming the equivalent of a golf caddie who is on the course, able to offer clients the right advice and product support for their ever-changing situations. Technology supports 'the caddie' (aka: the advisor) to offer better customisation and risk management.

Mass customisation allows advisors to create 'customised portfolios' for their clients

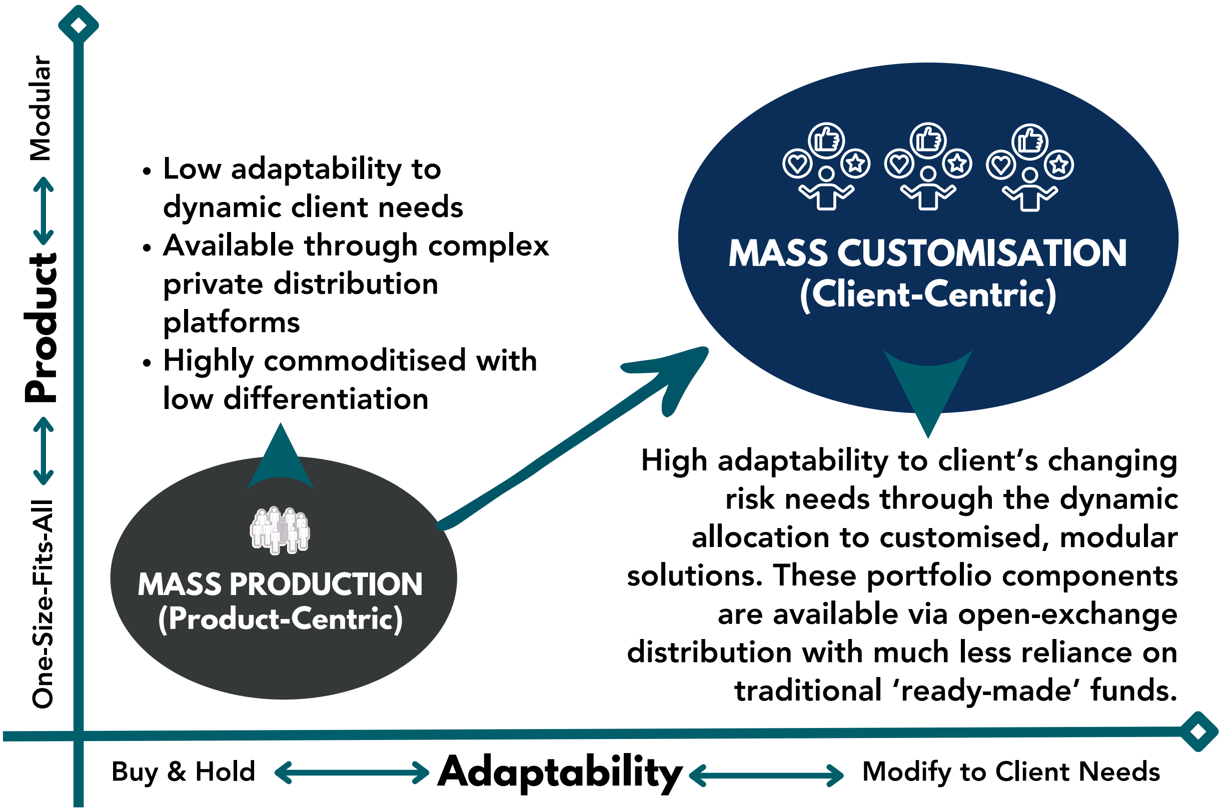


Figure 1: Modular Adaptability: The Evolution of Investment Management

More recently, a new mass-produced industry invention (known as 'outcomes-based' solutions) has been touted as a better solution because the fund returns are linked to inflation. However, these CPI+x% products are nothing more than re-branded balanced funds, where higher allocations to equity are held in the hope that they will, over the long-term, achieve a higher return-outcome, relative to inflation.

Unfortunately, these old-wine-in-new-bottles funds have largely not kept up with their promised returns due to structurally higher volatility and unstable equity and bond correlations. As a result, advisors are starting to develop their own asset allocation solutions or outsourcing this to new-age risk management platforms that can deliver highly adaptive and customised solutions for their clients.

Technology has progressed so quickly that advisors can outsource the entire value chain, from the design of the solutions and products, the portfolio administration, to the rebalancing of the portfolios, to the distribution and the reporting without necessarily using traditional mutual funds.

Two Reasons why **Mass Customisation** is an irrevocable game changer

1 CLIENT ADVISORS ARE USING RISK TECHNOLOGY TO DO MORE THAN FUNDS CAN

Before mutual funds were invented, investors all had their own private, customised portfolios that were managed by well-dressed private client stockbrokers on Wall Street – all very high-touch and personalised. However, as demand grew, running hundreds of personalised portfolios became technically impossible and very costly. Then the mutual fund industry came along, producing mass produced, ready-made funds to ease the portfolio administration burden.

However, times have changed (again). Modern technology now makes it possible to run millions of self-directed personalised portfolios – in some cases, even using fully-automated robo-advisors. And, admittedly, while many investors still prefer a human wealth manager or advisor, the key takeaway is that investors and their advisors are now entrusting technology with the role of building much more dynamic investment portfolios tailored to their specific needs, instead of relying on pre-made traditional mutual funds.

As an example, we will show how easy it is becoming for an advisor to offer their own balanced portfolio using cheap ETFs with a capital guarantee.

This allows client advisors to brand and manage their own 'funds' or risk-managed portfolios and, in doing so, grow their own importance and their revenue through the building of more adaptive wealth and investment solutions, using, modular, listed instruments.

> Client advisors are able to brand and manage their own 'funds' or risk-managed portfolios, which are more adaptive wealth and investment solutions.

WHY ARE CLIENT ADVISORS BECOMING MANUFACTURERS?

Existing distribution

Advisors have a competitive advantage over asset managers in that they already have a loyal client base and don't need to spend on expensive marketing campaigns to try and entice clients away from the competition. In short, those with existing distribution will increasingly manufacture their own solutions. Even pension funds, corporates and family offices will be able to build their own solutions in partnership with advisors.

Client Advisors are becoming Product Manufacturers

Small initial fund size

Advisors can offer personalised solutions profitably for much smaller initial portfolio sizes. It only makes sense for a fund manager to launch a new fund or offshore solution for very large initial fund-sizes. This high initial, minimum-asset hurdle is exactly why mutual funds are mass-produced and can't be customised. Today, any advisor can start a new pooled, unitised, tax efficient investment product (active and/or passive) that is listed on a local or global exchange for no more than $1-5m per product. This listed product also effectively circumvents the need for higher cost LISPs and other traditional ecosystems that might not be that relevant anymore if you are managing portfolios of listed instruments.

Sure, these advisors will, for several years to come, still require the services of asset managers who have specialist solutions, but the current reliance on ready-made, endowments, annuities and balanced funds will diminish.

In fact, we will point out how important it is for traditional fund managers to use their portfolio- and risk-management prowess and distribute their intellectual property on exchanges using non-traditional fund wrappers like Active ETFs, Actively Managed Certificates (AMCs) etc.

2 'SHE WHO OWNS THE CLIENT DATA, GATHERS THE ASSETS'

Advisors and other intermediaries – like banks or wealth platforms – own rich, dynamic client data. Technology enables those with deeper client data to deploy new mass-customisation capabilities much more cheaply. Those with existing distribution and those with their own client data can, and will, build their own investment products and advice process at the expense of those who don't have access to the data and can only offer mass-produced funds. As we go through life, our needs and risk preferences change continuously, in response to a variety of circumstances. Because of the nature of the relationship that they have with us, our financial advisors, wealth managers, banks and medical aids all have a much richer and broader understanding of how our financial needs and our family situations change, which is information that traditional asset managers or life insurers have no line-of-sight of.

When global events happen that are beyond our control – like the COVID-19 pandemic or the 2008 Global Financial Crisis – it is often surprising to both institutional and private investors how little asset managers change their asset allocation. This is due to both commoditisation of mutual funds and because of a lack of client data. For example, a 'blind' product, like a balanced fund, can hold our lifesavings but have no data or understanding of our specific circumstances and how radically things may have changed for us. So, they continue as they always have, which can lead to permanent erosion of trust and encourages us to seek out suppliers of investment returns who can adapt to our needs.

> Fund Managers have lost touch with the end client or investor as intermediaries own the client data

Investment management will be no different to other industries that face major disruptive disintermediation due to customisation. Take vehicle manufacturing. In the past, if you wanted to manufacture your own brand of car, you needed billions of dollars to build factories, hire people and build service centres and show-rooms. Because of this, existing vehicle manufacturers had it easy for decades as the set-up costs and intellectual capital created a 'competitive moat' that kept barriers-to-entry very high

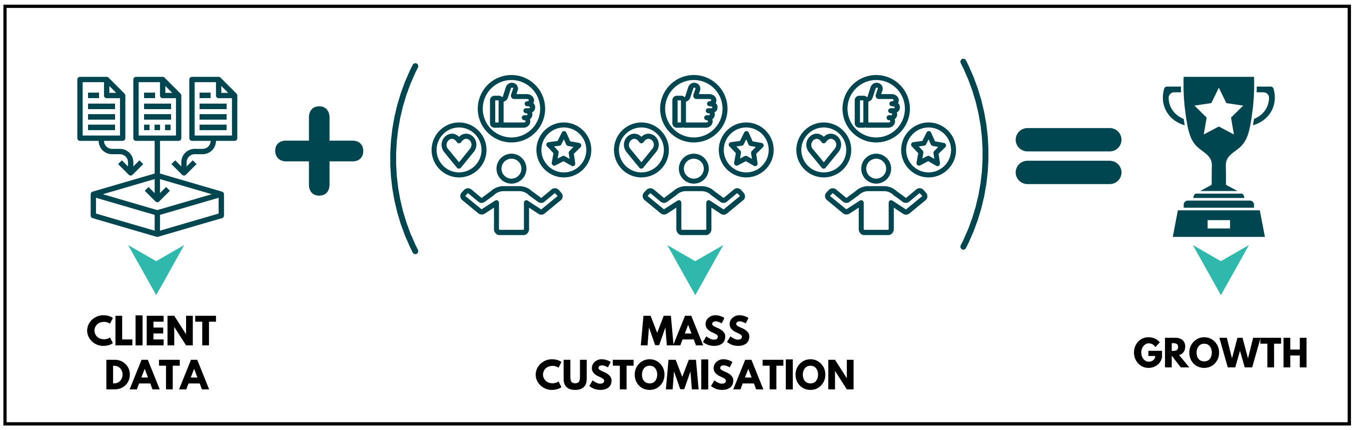
But then Tesla came along. With none of the traditional manufacturing or production competitive advantages that Chrysler or BMW had for combustion vehicles, the company rode the trend of new electric vehicle manufacturing technology, allowing them build a car brand from scratch with much lower set-up costs. The growth and impact of Tesla has surprised almost everybody.

Tesla has been followed by Vinfast (the motor division of Vingroup, one of the largest Vietnamese conglomerates that is still almost exclusively owned by its founder) making electric speciality SUV's. Within five short years, as of August 2023, Vinfast's total market value is larger than that of Ford, GM, BMW and Volkswagen.

Disintermediation due to advances in technology is revolutionising all industries – from banks, to shoes, universities and even fashion.

Today, the biggest fund manager in the world might be BlackRock, but the fastest growing asset gatherers over the next five years will be a list of names nobody has ever heard of. And, they could be anyone from a traditional fund administrator or a custodian that gets into risk-centric product development at super low-cost or an advisor-led, quant-platform, like Dimensional Fund Advisors (DFA), or a fintech shop like FNZ that integrates listed with unlisted portfolios and combines this with open-architecture customisation technology.

The point here is that the fastest growing asset gatherers of the future will most likely not be traditional fund manufacturers who rely on balanced-fund track records, nor those who rely on traditional target-date pension fund solutions nor those who try to deliver an inflation-targeted return using high-, medium-, low-risk static risk categories. The owners of client data, armed with mass customisation technology, are going to lead the way.



A **'Faster Business Model'** will define growth in **Asset Gathering**

In 1984, a 19-year-old freshman at the University of Texas did what many others did in that era – he started a computer company from his dorm room, with starting capital of $1000. Within a year, he'd dropped out of university and went on to build a $12bn company over the next 13 years.

Underpinning his success were two extremely basic, yet immediately successful, insights, based on customer need (which many of the biggest computer companies at the time, never considered).

First, the standard manufacturing process of building one-size-fits-all computers resulted in customers being forced to buy computers that were under- or over-specified for their needs. For example, memory chips and hard drives were extremely expensive items that the customer could not choose when ordering a personal computer.

Second, he realised that there were way too many intermediaries (including component manufacturers, computer manufacturers, resellers and distributors) in the distribution model of large computer and mainframe companies, resulting in a much more costly end-product.

Both of these insights led to a PC industry that was way too 'engineering-centric', with IBM, Compaq and HP subscribing to a 'we-have-to-manufacture-all-the-component-parts' coupled with a 'we-will-tell-the-consumer-what-they-need' view of the world.

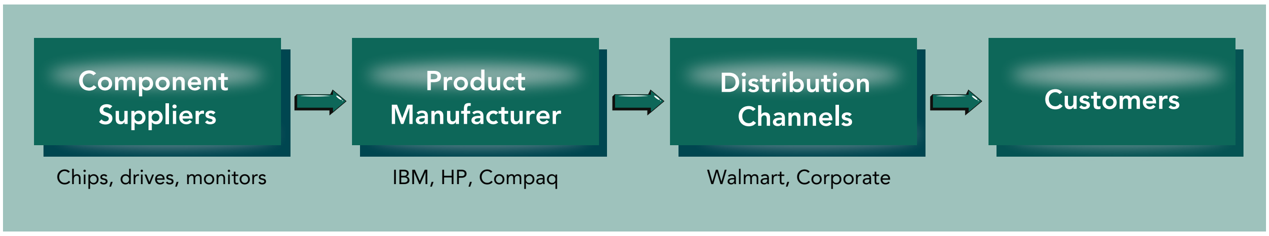
So, Michael Dell decided to do something brave. He created a 'direct to consumer' model, taking telephone orders and building personal computers exactly the way customers wanted them. In doing so, he instantly turned a 'push' business model (where manufacturers pushed their products onto consumers), into a 'pull' business model where the client co-created or was involved in the design of the final product.

Harvard Business Review (March-April 1998) explains in Michael Dell's own words, the substantial ancillary benefits of this new business model.

The direct model turned out to have other benefits that even Michael Dell couldn't have anticipated when he founded his company. *"You actually get to have a relationship with the customer,"* he explains. *"And that creates valuable information, which, in turn, allows us to leverage our relationships with both suppliers and customers. Couple that information with technology, and you have the infrastructure to revolutionize the fundamental business models of major global companies."*

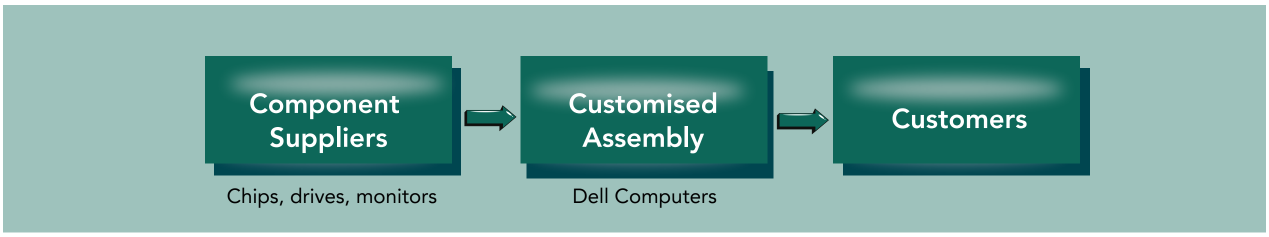
MASS PRODUCTION

The dominant model in personal computers - a value chain with arms-length transactions



MASS CUSTOMISATION

Dell's direct model eliminates the time and cost of third-party distribution



Source: Based on 'The Evolution of a Faster Business Model' - Harvard Business Review (March - April 1998)

Figure 2: Evolution of a Faster Business Model for personal computers (Dell Computers)

The entry of Dell Computers into the IT industry has strong parallels with what is happening in the investment management industry today. We still rely almost entirely on a push business model, with large, traditional, fund managers (manufacturers) supplying standard, highly similar, high/medium/low-risk balanced funds to anonymous clients.

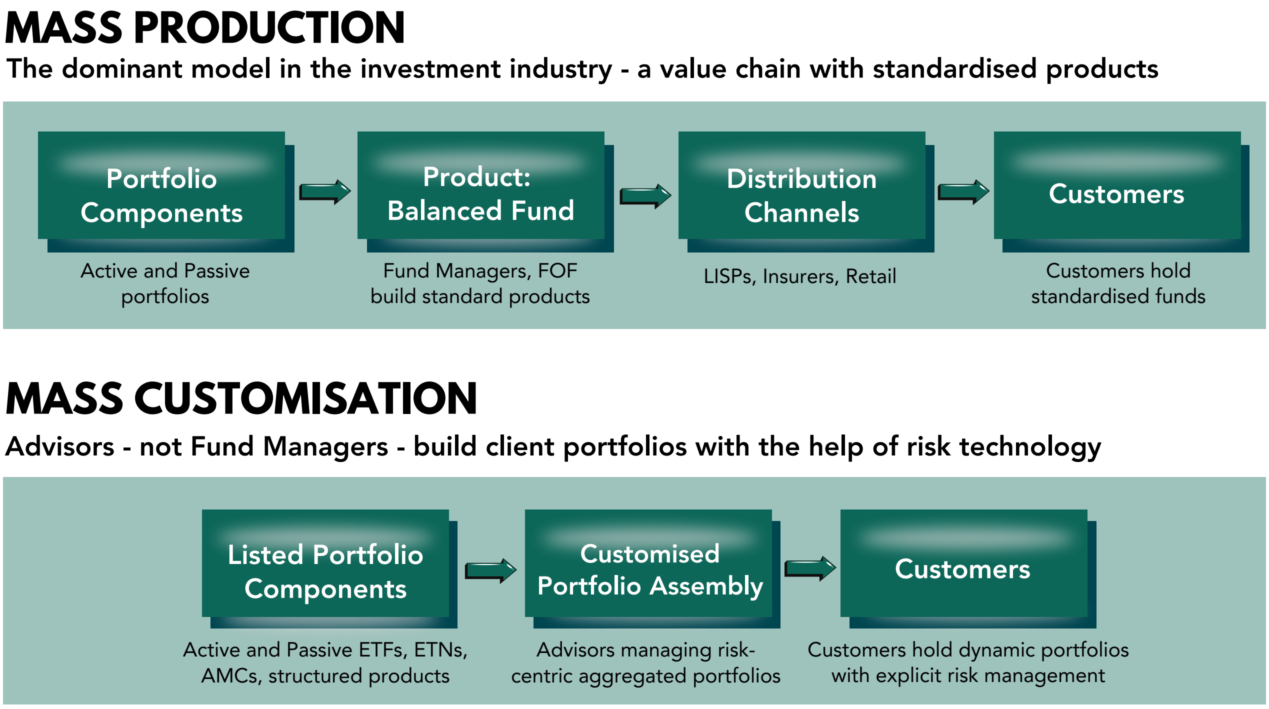


Figure 3: Evolution of a Faster Business Model for Asset Management

In addition, established 'manufacturers' are also losing touch with the end client because they rely on complex intermediary platforms like LISPs (and in some cases, captive advisors) to distribute 'standardised' products.

However, with new exchange-listed products and for much smaller asset 'pools', the wealth advisor is taking on the role of Dell Computers, becoming a mass-customisation enabler using technology platforms to deliver precisely what the client needs, while empowering themselves and their clients to give input on how their investments need to adapt, based on their life's changing circumstances.

Harvard Business Review calls this new way of servicing clients the 'Faster Business Model' as described in Figures 2 and 3. Because the client has ownership or involvement, the growth of the business is ultimately faster than the traditional 'broken telephone' distribution model where too many diverse intermediaries with different agendas in the value chain 'dilute' the client relationship with the original manufacturer.

As Dell moved from telephone orders to self-service online orders, his business exploded. Similarly, the financial advisor, who is now empowered with new risk management technology and has access to rich and continually evolving client data, effectively can 'mass assemble' modular portfolio solutions just like Dell assembles its customised or modular computers.

The ability of the advisor to use exchange listed portfolio components, like Passive and Active ETFs, is equivalent to Dell allowing anyone to use their open-architecture online assembly platform. Similarly, advisors won't have to rely on private, fund supermarket, platforms that often come with rules and constraints.

Portfolio management is a 'Pull' business model, whereas fund management remains a 'Push' business model

So, the 'direct to consumer' model that Dell Computers made famous is now making its debut in the investment management industry. We call this new investment business model **'modular adaptability'** because the client's portfolio can be adapted continuously with modular portfolio components that don't necessarily require traditional 'funds-for-life' like annuities, endowments or balanced funds.

Selling Past Performance
is getting harder

For years, our industry has held fast to the belief that past performance matters most and that beating a benchmark is what clients require and will pay for.

However, evidence shows that past performance has a very poor correlation with future performance. More importantly, top-quartile performance is irrelevant to the end-investor if their risk appetite or financial goals change, but the fund doesn't know about it.

Similarly, beating your peers or the market might sound like skill, but if the market lost 8% over the same period, your investors are not going to meet their goals for several years to come.

WHY SINGLE INDEX OR HURDLE RATES ARE NOT RELEVANT BENCHMARKS

Traditional benchmarking that uses a single index or hurdle rate like the S&P500, CPI+4% or peer-group averages has, for decades, been heavily criticised by the academic community as insufficient to define skill. One reason for this is that, with a popular US equity benchmark like the S&P500, over any given period, the majority of US equity fund managers all either out- or under-perform the market at the same time, meaning that, either everyone has skill at the same time or nobody has skill at the same time.

This is a flashing neon sign that the benchmark is more volatile than all the funds that are being benchmarked against it. Fund managers generally never hold full exposure to the largest stocks in the highly concentrated S&P500 or MSCI World indices that are dominated by, for example, huge technology companies.

As a result, every fund manager is a winner when the market or heavy-weight technology stocks plunge, because the fund managers all outperform relative to the S&P500. Similarly, every fund manager is a loser when technology stocks rally as the managers all underperform simultaneously. How are we supposed to know who actually has skill in this scenario – and whether this form of skill is even relevant?

DOES BEATING INFLATION WORK?

What about longer time horizons and so-called 'outcomes-based' funds that try to beat inflation?

Firstly, while beating inflation is certainly a noble pursuit, you don't necessarily need skill to beat it - passive and static allocations of 60% to equities and 40% to bonds has also consistently beaten inflation over intermittent 5-year periods.

"Perhaps no development caught investors off-guard last year more than the failure of the tried-and-true diversification strategy of owning bonds to cushion against losses in the stock market. The inability of so-called 60/40 portfolios—shorthand for diversified strategies with 60% stocks and 40% bonds—to offer investors protection from the bear market in stocks has upended what had become conventional wisdom among the markets."

Morningstar, January, 2023

Secondly, beating inflation doesn't mean that you have good risk control. Traditional actively managed balanced funds that re-weight back to a strategic asset allocation of high equity for growth and low equity for safety have come under a lot of fire for their lack of risk control, even though they may have beaten inflation. For example, the constant expectation for balanced funds, based on long-run averages, that equities and bonds are always lowly correlated is flawed – as was witnessed in 2022.

Mounting research, as this extract from Vanguard below shows, concludes that we need to do more than apply assumptions and heuristics when managing balanced or inflation-target funds. Vanguard clearly highlights that, with rising inflation and interest rates, equity and bond correlations also dangerously rise.

Certainly not all, but many balanced funds that rely on traditional asset allocation alone, do very little to adapt to these important findings and struggle to deliver the consistent returns that they promise.

> *"Faith in the traditional 60% stock/40% bond portfolio has been shaken further in recent months as a step-up in inflation and interest rates threatens to violate the negative stock/bond correlation underpinning the diversification properties of a multi-asset portfolio. This backlash comes at a time when the balanced portfolio is under increased scrutiny because of the historically low income generated by fixed income securities; some have argued that this low income not only dampens overall portfolio returns in normal times but also accentuates the limitations of bonds as effective equity shock absorbers. Although we acknowledge that returns for balanced portfolios are unlikely to reach their long-run averages, less is clear on how the stock/bond correlation is expected to evolve and impact portfolio outcomes."*
>
> **Vanguard Research: "The stock/bond correlation: Increasing amid inflation, but not a regime change" (September 2021)**

WHAT'S NEXT: DIY PORTFOLIO CONSTRUCTION?

Given that investors find it hard to differentiate between funds and are becoming impatient with this type of generic wealth creation, it is now more common for advisors and DFMs to take a stab at selecting very popular and flexible ETFs to manage their own balanced solutions. In the process, they are becoming asset gatherers.

This, of course, doesn't mean that advisors are any better than traditional balanced funds at navigating the murky future. They do, however, have one major advantage in that they can customise solutions for client that are more flexible in meeting their clients' needs when their circumstances or risk tolerances change.

In addition, as we will demonstrate later, some of the latest risk technologies coming to market allow advisors to embed some level of sophisticated risk management inside their own balanced solutions or within each asset class. This makes it much easier for them to run very credible and adaptive multi-asset strategies that can modify the asset allocation automatically to enable precise dynamic diversification, risk-control and tail-risk management. Advisors can even deliver their own, white-labelled solutions with structured payoffs like capital guarantees, effectively offering more compelling balanced funds when compared to traditional balanced funds that have no risk-technology or capital protection.

In contrast, many fund managers have, for decades, under-invested in risk technology and increasingly, find that they are now competing with these new asset gatherers who are turning to platforms bristling with new risk technology, like Motif or Betterment, Charles Schwab, Interactive Brokers, Saxo, SwissQuote, Aladdin Wealth (BlackRock), Neo (UBS), Nexus (JPMorgan), FNZ Q-Hub, LYNQS (Leonteq) and many others. Note that none of these names are traditional fund management businesses, but they are all rapidly facilitating 'non-fund' asset gathering and mass customisation.

There are also sophisticated balanced fund managers who do use the latest risk management thinking and technology very effectively, but it is becoming ever easier for advisors to also use these new platforms and do it themselves, given how this technology is becoming pervasive and open for anybody to access online.

The future, therefore, will not be about either skill or past performance. Instead, it will be about who has access to the best risk technology and who is able to manage risk more precisely and adapt more appropriately to major market dislocations, shocks or black swan events.

The future is not about who can beat benchmarks, but rather **who can manage risk**

In summary, the new value proposition for investment management is not beating your peers, over-promising top-quartile performance or winning awards, because this is not what investors want to pay for anymore. If you want to gather assets, you need to do something more. Technology can help you precisely manage risk for your clients' unique and dynamic comfort levels.

Launching a Balanced Fund
is not Dissimilar to Launching a Missile

Building a traditional balanced fund is not dissimilar to launching a traditional intercontinental ballistic missile. First, you measure distance and wind direction, and then, very carefully, take aim at the target and fire. After launch, you hope and pray that you got the calculations right.

Original ballistic missiles were notorious for missing their target as operators had no control over the projectile after launch. In the same way, launching a medium-risk balanced fund that tries to beat inflation by 4%, also requires making initial assumptions based entirely on history, hoping that if a particular asset allocation has been optimal over the last twenty years, it should hit its target for the next three years.

Building on this analogy, fund-of-funds allocate to multiple balanced funds or active managers which, from a risk control perspective, is the equivalent of launching multiple missiles hoping that, on aggregate, you will hit the target. However, firing more projectiles that all are highly correlated, could also mean that none of them hit the target.

Again, small human miscalculations can end in big misjudgements as evidenced by the poor track-record that traditional balanced funds have shown in hitting required targets or mitigating risk during market shocks.

Most balanced funds are structurally overweight equity to achieve higher return, which often lowers diversification making these products vulnerable to equity crises. If balanced funds are highly correlated, which many are, they could all miss the target, as was the case in 2022 when both equities and bonds fell precipitously at the same time.

Investors that are either invested in a single fund, or across multiple funds, are receiving implicit, rather than explicit, control of the risks.

Using a simple culinary example, if an investor buys three balanced funds based on their past performance, it is like buying three carefully prepared soups-of-the-day from three different restaurants and blending them into a single soup. Once combined, there is no way that we can control the quality of the blended soup at a risk-budgeting or 'ingredient' level, because each restaurant constantly modifies their recipe for their soup-of-the-day. Individually each soup might be very good, but when we blend them, we get an average soup that we have no way to customise.

WHAT IS THE SOLUTION?

Mass Customisation is only truly effective if someone or a technology process can dial-up or dial-down required investment risks as and when required or when we deviate from our target outcome.

Building a balanced strategy or process at portfolio level, using individual instruments and possibly incorporating ETFs, is a much more explicit way of controlling a custom risk-budget. However, it requires a two-step process. Firstly, we need to have a tool that can tell us what our current risk exposures are at any given point in time. Secondly, we need to map these current risks to our desired risk exposures – which is what risk-budgeting is all about.

This again demonstrates the importance of the quality data that a wealth manager or advisor has access to, by virtue of their relationship with an individual investor and their portfolio, as opposed to a fund manager running a single risk-budget for thousands of investors..

> Every portfolio is a soup of good and bad risks.
> Who has the **best technology to monitor and manage these risks?**

Case Study: BlackRock's Aladdin Wealth

BlackRock has now opened the Aladdin Wealth platform to advisors.

The platform, coupled to one of the most sophisticated global cross-asset risk systems, demonstrates one of the best examples of how to achieve mass customisation successfully.

In reality, every portfolio or balanced fund is, whether we accept it or not, a continually evolving soup of good and bad risks. The Aladdin Wealth technology continually 'advises the advisor' or the wealth manager about ways to improve a client's portfolio, including being able to advise how much of each risk the client is exposed to right now and how to adapt these risks to make sure their financial journey remains on track.

This type of technology is a complete break from previous extremely basic portfolio 'recipes', or heuristics, used by traditional managers, like mean-reversion based on assumptions from unstable historical averages or extrapolating current trends into the uncertain future.

Aladdin Wealth breaks down client portfolio risk into 3ooo risk factors and, like several other similar risk-budgeting platforms, can simulate and stress-test thousands of 'what-if' scenarios and summarise this information into simple choices for the advisor or wealth manager to present to clients.

Investment managers who don't have access to the latest risk management or risk monitoring technology will find it hard to deliver on client expectations, going forward.

A major trend in the investment management industry is that DFMs, independent financial advisors, high-net worth wealth managers, family offices, private client stockbrokers and robo-advisors are upgrading to or renting these super modern, risk-centric 'technology kitchens' that allow them to apply sophisticated customised portfolio recipes themselves. **Some of the 'recipe' options advisors like are:**

Methods that dynamically and continuously maximise diversification, ways to hedge specific unwanted risks or monitor how correlations are changing across countries, asset classes and risk factors. **When these correlations suddenly change, advisors really like how this newfound technology-led capability allows them to make highly relevant proposals on how to adapt client portfolios.** In times of crisis or opportunity, investors don't like to be in 'average' long-term solutions. This is when risk management technology, that is not based on human judgement, makes all the difference.

Alternatively, if the market is stable, but the **client needs to make an important portfolio change**, due to a change in financial needs or an unexpected life situation, **the advisor can change the client's inputs and risk tolerances and the technology seamlessly adapts.**

In the next section, we will delve into more detail around the latest thinking about how to better reach investors' minimum financial needs through continuous risk-budgeting. For now, the main realisation is that even slight miscalculations with infrequent and subjective inputs can throw a balanced fund's single and only trajectory way off target - and everyone in the fund will suffer.

Risk management technology enables advisors to monitor and adjust each clients' individual trajectories with modular and mass customised solutions.

SMART MISSILE TECHNOLOGY: KIYOSHI ITO

Scientific luminary, Kiyoshi Ito, expanded stochastic calculus and one of its most famous applications is to create 'smart missile' technology. He realised that the only way to prevent missiles from missing targets is to carve up the trajectory into smaller and smaller sub-regions and make high frequency, but small adjustments, to smooth the trajectory towards the target. In other words, self-correcting technology enables missiles to 'micro-adjust' in mid-flight.

If you adjust your balanced fund's asset allocation too infrequently and only use heuristics or subjective information, your fund might have already deviated too far from its required trajectory to be corrected.

However, if we use Ito's thinking and apply adaptive and continuous risk budgeting to the portfolio before it deviates by more than required (like with self-correcting missiles), the fund can stay on target. For example, during calm market conditions, we might not need to adjust the portfolio's trajectory often but when volatility increases, we require much more frequent, small changes, to ensure we stay on target.

Kiyoshi Ito (1915 – 2008)

Ito was a Japanese mathematician that introduced new ideas to model random events across multiple discrete time periods. These stochastic models have been applied to both missile technology and, more recently, to modern finance, helping investors to more precisely reach their financial destination and, also, to smooth the journey along the way. He was awarded the Kyoto Prize, the Wolf Foundation Prize of Israel and the Carl Friedrich Gauss Prize of Germany. Robert C. Merton, a winner of the Nobel in economic science used Ito's models in his research on the evolution of stock prices in a portfolio and, later, in helping develop a theory for pricing stock options that is still used on Wall Street today.

Neither fund managers nor advisors can do this without technology – and those who use technology to build a risk budget for each client (and re-evaluate this budget multiple times a year or when market or investor conditions change) will gather assets much faster than those who don't.

In effect, the winners in the game of asset gathering will be the service providers who can deliver 'Modular Adaptability' beyond fund level and at individual investor portfolio level. As we will show later, it is very possible for fund managers to successfully reinvent themselves as portfolio- or specialist risk-managers if they have access to good risk-budgeting technology (and slowly ween their revenue reliance off one-size-fits-all, ready-made, balanced funds).

And you thought your **Balanced Fund was diversified?**

It's important to illustrate the difference between how traditional asset allocation is applied to balanced funds versus how proper risk-budgeting needs to be implemented.

TRADITIONAL ASSET ALLOCATION...

Take a traditional fund running a strategic asset allocation for a medium-risk balanced fund that maintains a long-term allocation of 50% in equities and 50% in bonds, with temporary or tactical deviations based on the manager's economic forecasts and market return expectations. This portfolio construction methodology or balanced fund recipe probably summarises 90% of all the assets managed in balanced funds globally.

We now revisit, in more detail, this traditional 'capital allocation' approach and how it has failed investors in every financial crisis. At the core is the problem that we highlighted earlier: traditional fund managers assume that correlations between equity and bonds remain structurally low - which is a flawed assumption in a crisis. This means that, exactly when we need this model to work, it fails us.

...VERSUS RISK-BUDGETING

When we only focus on asset- or capital-allocation and ignore the constantly changing relative risk contributions, then our portfolio is far from diversified. It's vital to measure how much risk is contributed by each asset class, which changes all the time. Risk targeting or risk-budgeting is about the continuous correcting of the 'flight path' of your portfolio trajectory to keep it on target. When market conditions are stable, we correct less often but when a crisis hits, we need to make frequent, small, changes.

> *"Risk-budgeting is based on the concept of allocating units of risk to specific investments, in contrast to the historical process of allocating assets. Traditionally, investors allocated 60% of their assets to equities and 40% to fixed income. Although the 60% of assets in equity represented approximately 90% to 95% of the risk of a typical portfolio (with the 40% in fixed income representing only 5% to 10% of the risk)... resulting in dramatic differences between asset allocations and risk allocation"*

Richard Horwitz, Erin Simpson and Terry Smith in their book titled Risk-budgeting, 2012

Risk-budgeting requires effort and active management. Holding 50% in equities and bonds requires very little effort but offers very little diversification. As a result, traditional balanced funds are far less diversified than investors and advisors might believe.

Because of the well-known fact that equities are nearly always more volatile than bonds - and can be up to 5 to 10 times more volatile than bonds during crises, if you always hold 50% of your balanced fund allocation in equities, you are implicitly accepting that about 80-90% of your total portfolio risk could be coming from this 50% capital allocation to equity.

Asset allocation is insufficient to manage Balanced Fund risks

Put differently, if you hold 50% of your capital in equities and these equities are, let's say, 5 times more volatile than bonds at a point in time, then surely the contribution of risk from equities to your overall portfolio's volatility will be much, much higher than your 50% capital allocation.

To truly maintain a diversified portfolio where equities contribute no more than half the risk of the overall portfolio (this is a specific risk-budget known as risk parity), we should probably not hold more than 20-30% of our capital in equities. But we still need to continuously monitor how the unstable correlations and relative volatilities between equity and bonds evolve through time. Technology can do this for us, whereas humans can't.

Even if our capital allocation to equity and bonds stays static, the contribution to overall portfolio risk can radically change

HOW DOES RISK-BUDGETING WORK IN A CRISIS?

Due to behavioural issues like anchoring, fund managers typically don't like to constantly ensure a stable risk profile by constantly re-weighting the asset classes, as it creates churn and leaves the impression that they are either timing the market or are unsure of their own process.

This can mean that, in times of crisis, managers are often reluctant to change their allocations, and when they do, it can often be too late. Investors, on the other hand, do care, very much, about maintaining a strict risk-budget, especially during times of crises. They like being able to call their advisor or wealth manager to make changes or have a pre-agreed risk-budget in place that is already de-risking their portfolio before they pick up the phone.

As a result, only users of the latest risk-budgeting technology can effectively deliver explicit and continuous diversification. For example, as a financial crisis unfolds or as the correlations and relative volatilities between equity and bonds changes, the risk-budgeting process will flag that equity risk contribution has jumped from, let's say, 50% to 75% of total portfolio volatility.

The advisor then has three choices (or, alternatively, if the risk-budgeting process is set to autopilot like in a robo-advisor, it can automatically implement a 'trajectory-correction'):

1. **Do nothing:** The first choice is always to just 'ride-out' the higher overall portfolio risk.
2. **Rebalance:** The portfolio can be rebalanced by down-weighting equities back to the pre-agreed risk-budget or upweight equities as relative volatility starts falling again.
3. **Protect:** The portfolio can buy a capital guarantee or hedge the excess equity volatility, effectively immunising the client's portfolios from higher future equity risk.

With the new risk-budgeting technology, advisors will be able to see exactly how diversification and risk contributions are evolving but they can't help clients who are stuck in a traditional balanced fund, unless they manage the balanced fund process themselves.

Today, advisors can flick portfolio switches on and off for their clients, as and when needed. For example, an advisor can explicitly enable a drawdown floor at any point in time, forcing the balanced portfolio to not lose more than 10% over, let's say, the next six- or twelve-month period. The technology will figure out how and will execute on this independently. Depending on the discretionary mandate, the advisor can, with or without the client's consent, turn off this switch again once the crisis has passed.

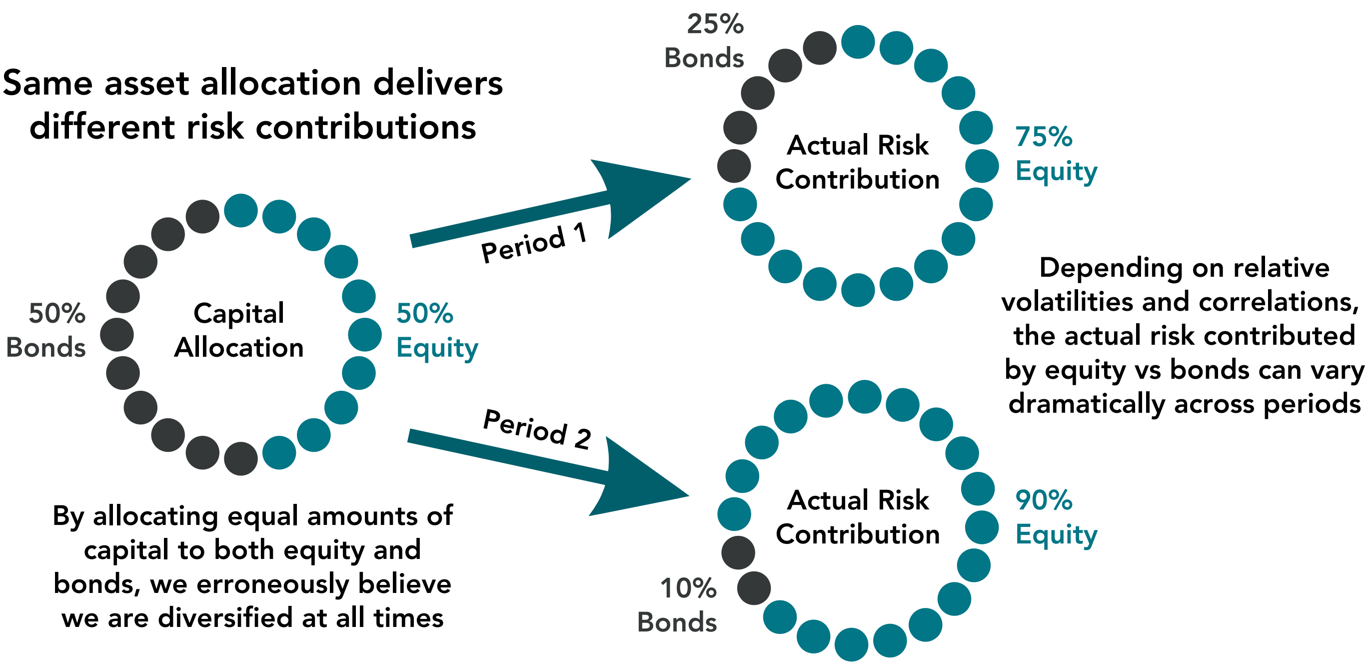


Figure 4: Why Traditional Balanced Funds that Rely on Asset Allocation, Fail during Crises

At a recent investment conference, Bob Rice, Chief Investment Strategist of Tangent Capital expertly summarised why traditional asset allocation is highly insufficient to manage our financial journeys.

> *"You cannot invest in one future anymore; you have to invest in multiple futures," Rice said. "The things that drove 60/40 portfolios to work are broken. The old 60/40 portfolio did the things that clients wanted, but those two asset classes alone cannot provide that anymore. It was convenient, it was easy, and it's over. We don't trust stocks and bonds completely to do the job of providing income, growth, inflation protection, and downside protection anymore."*

HOW ENTRENCHED IS RISK-BUDGETING CURRENTLY?

Risk-budgeting is a serious new field in asset and wealth management. However, very few traditional investment professionals and practitioners are implementing it due to a lack of access to technology that can help integrate this into their investment process.

Technology like Aladdin Wealth, DFA's portfolio construction tools and others are already rapidly becoming available to anyone with online access. They are also automatically being embedded in portfolio management apps or available to rent, saving wealth managers and asset managers from having to invest in the development of this technology.

Our clients have the right to know what the risks in their portfolios are at any given time, but we generally don't want them to know. This new technology will enable much needed transparency so that advisors and intermediaries can customise financial journeys by continuously monitoring the relative risk contributions from equity and bonds, while also measuring the client's portfolio sensitivities to other important market risk factors: economic growth, inflation, currencies, interest rates and credit cycles, commodity cycles etc

We have only scratched the surface of risk-budgeting here. However, it is inevitable that highly reactive technology will be (and currently is being) implemented to watch over the shoulder of advisors or wealth platforms - and give them better choices.

How Risk-Budgeting is evolving

Fund managers, whether they know it or not, have always been risk-budgeters – because every fund is an evolving single risk-budget. The issue with this is that investors have had to accept this take-it-or-leave-it, single risk-budget.

In summary, the major shift of assets over the last twenty years from traditional actively managed funds to passive funds has far less to do with skill or fees, than it has to do with the fact that passive funds don't have discretion. Combining a portfolio of passive ETFs provides a much more precise ability to manage a risk-budget than combining active managers does. By definition, active managers have discretion to 'drift' without permission, making tight risk control difficult (especially if they 'herd' in the same direction).

Consolidating multiple actively managed funds has been a huge growth area for intermediaries, but it has fallen short of delivering precise and timeous risk control. Someone once said that managing a risk-budget across multiple actively managed funds is like trying to conduct an orchestra where each musician is a solo artist playing their own tune.

HOW 'RISK-CENTRIC' MANDATES ARE REPLACING 'RETURN-CENTRIC' MANDATES

Going forward, advisors will increasingly ask portfolio managers, rather than fund managers, for mandates that are much more risk-centric and 'trajectory' specific, in order to achieve the more precise financial outcomes that are in the client's best interest. Here are some examples of what we can expect portfolio- or fund-mandate requests to look like:

The key point is that all of the above mandates are, in effect, precise risk budgets that are highly realistic and important to investors and their advisors, yet traditional funds are not able to deliver these kind of return profiles.

By assembling ETFs and/or active portfolio strategies (not funds) and combining them with bank or insurer portfolio guarantees, advisors can indeed deliver the above risk-budgets precisely.

Better still, many of these types of solutions have already been created and listed on exchanges. An example is the iShares Large Cap Moderate Buffer ETF that seeks to participate in the price movement of US large-cap stocks, up to a cap, while applying a 5% buffer against losses over each calendar quarter. These Active ETFs hold a bundle of iShares Core S&P 500 ETF flex options.

EXCITING NEW RESEARCH IS DRIVING THIS FIELD FORWARD

The science of risk-budgeting is largely about removing 'hope' from investors' financial journey. Currently, we still rely heavily on the hope of outperforming a benchmark, or the hope of picking the right fund, or the hope that talented humans with strong past track records will know how to navigate the complex and rapidly evolving global risks of the next financial crisis.

Clifford Asness, co-founder of AQR, a well-known academic and very successful hedge fund manager, uses risk-budgeting extensively. AQR's extensive research into this field concludes that, without risk-budgeting, traditional investing becomes much less robust:

> *"The concentration risk of traditional policy portfolios leads to a) lower risk-adjusted returns, b) less consistent performance across economic environments and c) higher tail risk."*

Thierry Roncalli, Head of Quant Portfolio Strategy at the Amundi Asset Management Institute and Adjunct Professor of Economics at University of Evry-Paris-Saclay has written more research than most on risk-budgeting and demonstrates the use of risk-budgeting for bond portfolio management.

In his book, Introduction to Risk Parity and Budgeting, 2014, Roncalli demonstrates how an approach that targets credit risk-spread volatility would have prevented the EU sovereign debt crisis and would have outperformed other traditional weighting schemes such as the ones that are still widely used in balanced funds today.

Technology and the science of risk-budgeting are increasingly trying to make investing more certain by managing risk as its main purpose and, thereby, being able to deliver a return payoff through time that does its best to avoid loss or extended periods of drawdown.

Several studies show that by merely minimising loss, we grow our wealth much more accurately and consistently than by chasing past performance, relative to fixed benchmarks or peer groups.

We grow our wealth faster
by minimising loss
than by trying to beat benchmarks

Scientific research is also uncovering how poorly we have managed risk in the past by looking primarily at asset allocation decisions only. In other words, managing risk properly requires much more than deciding which stocks to pick or how much to allocate to equity, bonds, property and cash.

In the same way that the microscope ushered in the scientific age, so new-age risk management is revolutionising investment management by going deeper than the human eye can see. We need to go beyond traditional perception of risk as being something that we can control with linear thinking and acknowledge that a lot of important, non-linear interactions are happening beyond our perception.

> *"Microscopes are the tools that allow us to look more closely at objects, seeing beyond what is visible with the naked eye. Without them, we would have no idea about the existence of cells or how plants breathe or how bacteria and viruses influence our lives."*

Using a different analogy to highlight the micro-detail in how various risks manifest themselves and evolve, research shows that risk-budgeting is not dissimilar to maintaining a balanced diet. Columbia Business School academic, Andrew Ang (who spearheaded a ground-breaking report on risk management after the 2008 global financial crisis that looked at why traditional asset allocation and balanced fund thinking is ineffective), used this 'diet' analogy first. He showed how only looking into asset class diversification is insufficient to manage a proper 'risk-diet' for a pension fund, sovereign wealth fund or a wealth client.

According to Ang, there are very important 'sub-risks' within equity and bonds that can 'gang up on you'. During the 2008 crisis, we experienced one of the worst credit and liquidity crises when both equities (property and financial stocks) and bonds plummeted at the same time, instantly vaporising any diversification benefits that fund managers had assumed would always be there (based on historical averages and assumptions).

Balanced funds can be likened to a balanced diet that pre-defines only how much carbohydrates, protein and fats (asset classes like cash, bonds and equity) you should eat. However, if you don't look deeper than the asset classes to the actual 'nutritional value' of your portfolio, you could end upbeing taken out by a 'sub-risk' such as the lack of iron or vitamin C in our diet.

Proper risk-budgeting allows you to drill down past basic asset classes into the real nutritional value of your portfolio – or to 'micro-nutrient' level. Doing this means that we have a better understanding of what we need, to maintain 'portfolio health' and achieve a very good balance across much more than just the general asset classes.

> *"Just like 'eating right' requires you to look through food labels to understand the nutrient content, 'investing right' means looking through asset class labels for the underlying factor risks. It's the nutrients in the food that matter. And similarly, the factors matter, not the asset class labels."*
>
> **Andrew Ang, Financial Times interview with John Authers – January 25, 2016**

Ang also makes the critical point that risk and return are umbilically related. In the long run, investors are rewarded for taking risk, which makes eliminating all risks self-defeating, because without risk we eliminate return too. Risk-budgeting is understanding that there are good risks and bad risks - just like there is good and bad cholesterol.

An interesting fact is that more Finance books about risk-budgeting or risk management by authors like Andrew Ang, Thierry Roncalli, Bernd Sherer and others are being published today than books about how to beat a benchmark.

Robo-advice expert, Agostino Capponi from the Department of Industrial Engineering and Operations Research at Columbia University says that an effective, technology driven advice platform needs to continuously facilitate an *"investment process that accounts for dynamic risk preferences and repeated interaction between client and the advice platform."*

Traditional balanced funds and LISPs don't encourage 'dynamic risk preferences' as clients are allocated to static high, medium and low-risk 'buckets', based on age or once-off risk profiling. Either way, clients in the same bucket get the same outcome, regardless of individual needs.

THE DEATH OF 'POLICY PORTFOLIOS'

As we described earlier, the latest research strongly suggests that the continued use of out-dated asset allocation methods (like mean-variance optimisation) that rely on assumptions of long-run historic averages are unable to provide the type of smooth or reliable return trajectory required for risk-budgeting.

As early as 2003, Peter Bernstein, well-known academic and author, called for the 'Death of the Policy Portfolio' and, by implication, of strategic asset allocation funds, like traditional balanced funds. Since then, many other luminaries have joined the cause.

For example, Edhec, an academic and industry thinktank focused on issues around retirement and investment policies, stated that Bernstein's claim echoed Nobel Economics prize winner Robert C Merton's call to action, all the way back in 1971:

> *"This early announcement has resulted from the recognition that there is no such thing as a meaningful policy portfolio—one should instead think in terms of a meaningful dynamic policy portfolio strategy. The claim here is that the need to react to changes in market conditions as well as changes in margin for error with respect to investors' most important goals, invalidates the relevance of any optimal portfolio that would be held constant for a sustained period of time."*

Lionel Martellini: "Mass Customisation vs Mass Production- How an Industrial Revolution is About to Take Place in Money Management." Edhec, 2016

SO, WHAT SHOULD ADVISORS DO?

More recently, Daniel Kahneman, another Nobel prize winner, this time from the Behavioural Finance camp, provided practical insights into how best to manage client wealth outcomes by specifically minimising 'regret'. To do this, Kahneman proposes the creation of two portfolios for investors: a risky and a safe portfolio which, together, can be used to deliver a 'regret-proof' investment solution.

Using Edhec's terminology, the safe portfolio should be a liability-matching/hedging portfolio that insulates the investor from various key market risks and the second, 'risky' portfolio, a growth-seeking portfolio. Developing a 'regret-proof policy', or 'regret minimisation' portfolio, allows advisors to add substantial value to clients by allocating between the two portfolios. The idea is that investors are less likely to regret-and-leave if they don't hold a single, traditionally mass-produced, one-size-fits-all balanced fund.

Traditional Balanced Funds that lock investors in are not designed to **minimise regret**

"The idea that we had was to develop what we called a 'regret-proof policy,'" Kahneman explained. "Even when things go badly, they are not going to rush to change their mind or change and to start over."

Daniel Kahneman

Dynamically allocating between a risky portfolio and safe one **delivers customisation and client centricity**

It is practically difficult for traditional fund managers to implement the above proposal as they are removed from the advice process - which makes it unfeasible to manage risk and meet individual client goals and needs.

Armed with the right risk technology, advisors suddenly become more relevant as manufacturers and arbiters of the financial journey. Robert Merton explained it well at a recent Q-Group panel discussion:

> *"Goal-based investing will be very important in the next decade. For example, if you have a goal of funding retirement or a benefit plan, you set the goal and manage it through a process called LDI (liability-driven investing). If you follow a liability-driven goal, then regardless of whether your Sharpe ratio exceeds those of your competitors, you can outperform competitors who lose their focus on the goal. We will be driven to the idea of greater service by knowing the client better, understanding what the client really needs, getting the client to identify what the actual goal is, and then designing dynamic strategies that achieve that goal."*

In summary, modern risk-budgeting technology and platforms, are empowering advisors with tools and processes that allows them to deliver returns that have much less exposure to unexpected disaster or loss. This is achieved by monitoring multiple macro and micro risks across sectors, geographies, asset classes and currencies and other risk factors that introduce fragility in our wealth.

As soon as an investor's risk budget goes off-course, threshold alerts kick in. Technology makes this monitoring seamless – like tracking your fitness levels being monitored via your smart watch.

Without going into technical quantitative details, this summary should give enough insight to illustrate how much more can be done with risk-budgeting than simply picking funds based on past performance.

Monitoring client portfolio risks and managing a personal risk-budget will be basic requirements in future. Clients are owed proper and immediate answers to questions about the risks currently impacting their investments and how these will be managed. Industry role players who are able to offer this technology-led service will be the most successful asset gatherers of the future.

2

Risk-Budgeting
in action

You may not yet have seen either risk-budgeting or mass customisation in action. This is because they are being implemented by new role players or by fintech innovators, rather than by financial or asset management houses, who primarily still rely on human decision-making, traditional fund-based products, and 'supermarket' distribution channels.

However, there are many industry success stories that are rapidly expanding thinking around mass customisation and risk-budgeting. These examples demonstrate that the concepts around new-age risk management are not just, theoretical, futuristic or academic pipe dreams.

BLACKROCK'S PIVOT

As discussed earlier in this report, BlackRock has successfully pivoted from traditional fund manager to a super-sophisticated, risk-budgeting platform. To do this, the company made two major changes to their business model.

1. With the success of their ETF and index platform, they realised early on **that investment management was becoming more modular and that, with more precise and well-behaved index funds, very precise risk-budgeting becomes a reality.** So, they facilitated the deconstruction or de-aggregation of traditional active management, understanding that, if you want to expose a client to the 'value' or 'quality' risk-factor, then you need to use a rules-based and precise index fund to capture these desired risks.

2. Their **tenacious commitment to, and use of, technology** – like their Aladdin Wealth platform – to build highly sophisticated and adaptive risk-budgets, that can then be monitored daily, has enabled them to embrace risk-budgeting on a major scale.

BlackRock sells Aladdin as a technology service – and it already accounts for more than 10% of their revenue. Aladdin doesn't replace advisors. Instead, it enables them to constantly visualise the risks in a client's portfolio, feed client needs into the system and help them to make decisions at key points around how to adapt their financial journey and risk-budgets.

In the same way that Amazon is not only an online marketplace anymore but has become a cloud computing service and logistics company, BlackRock is no longer a fund manager but, rather, a fully-fledged risk management technology company.

The customised risk-budgeting and planning technology market is being also targeted by other big players like State Street Global and PimCo.

State Street Global combines strong custody, asset management and index capabilities and recently acquired Charles River (a mid-sized portfolio and risk analytics technology provider) for $2.6bn giving it the key ingredients to become an integrated, low-cost, risk management specialist.

DON'T FORGET THE GLOBAL INVESTMENT BANKS

Global investment banks that have the budgets for specialist quant, index and risk technology business units, also are increasingly competing with traditional fund managers in the fully integrated wealth space, leveraging their own sophisticated global cross-asset risk analytics and wealth management platforms. Amundi has built Alto, JP Morgan has Nexus, Goldman Sachs has had several systems (SIMON, Marquee etc) and UBS has Neo.

And don't ignore Bloomberg. The company has a strong data background, bought Barclays' fixed income index business as well as their POINT risk platform. This effectively moved Bloomberg quite quickly from data provider and execution portal, to a fully-fledged index fund platform owner and, most likely, an asset gatherer.

In general, the global banks have two extra tricks up their sleeves, which are:

1. They invest billions of dollars in developing and expanding their global cross-asset risk technology but also provide the white-labelled risk-budgeting platforms for advisors and asset managers, who don't have the budget to develop their own.

2. Investment banks play an important role in facilitating the issuance and listing of new portfolio strategies, like dynamic portfolio notes, ETFs and structured products, effectively disintermediating LISPs and traditional fund distribution platforms.

Banks will increasingly do the market making, custody and implementation of white-labelled rules-based or fully active portfolio strategies (ETFs, AMETFs, AMCs, ETNs, Structured Products) that are listed on various exchanges. These unitised and fractionalised portfolios will give advisors or wealth platforms important new 'fund-like' capabilities as well as the ability to brand their own portfolio products and deliver the innovation that traditional funds currently lack.

This gives anyone with a client base the ability to offer their own asset-gathering versions of someone like BlackRock's ETFs. These listed portfolios might threaten traditional, generic, balanced funds, but they are also rapidly enabling traditional active fund managers to become much more modular and are allowing portfolio managers themselves to innovative with on-exchange product that can appeal to entirely new distribution channels, like wealth, advisor, private client stock broking and online trading portals.

Global listed product platforms, like Waystone, HanETF and Citibank's ACES platform are also assisting active and passive fund managers to list, via these 'exchange' platforms, their own focused, thematic and tactical portfolio solutions for risk-budgeting advisors to integrate in their solutions.

Anyone can build their own investment products today, **but very few can manage individual risk budgets**

We will explain this in detail later, but listing their active portfolios as Active ETFs, using listed product 'hotels', will provide an important growth area for traditional fund managers to effectively 'de-aggregate' their house-view portfolios and balanced funds into accessible sub-strategies.

In effect, one doesn't need a fund manager to access a fund anymore as you can build your own. But those with the experience and skill to manage funds (ie portfolio managers) will benefit from these new distribution opportunities and can start new, more focused, and innovative strategies for much lower initial assets under management.

As we move from beating benchmarks to actively managing downside risk for investors, banks and insurers will play a more important role in delivering precise risk immunisation strategies for liability-hedging payoff profiles that are needed for new-age risk-budgeting and proper goals-based investing.

For those worried about credit or issuer risk when investing in bank or insurance certificates and notes, there are now several new technology platforms that can fully remove or isolate bank issuer risk. Simple ring-fenced trusts and the smart use of collateralisation are already facilitating advisors, family offices, pension funds, corporates and wealth platforms who don't want to face bank credit risk.

The Swiss exchange (SIX) now even offers its own credit-risk management platform, called COSI, that can effectively remove counterparty risk for exchange-listed product by requiring the issuer to pledge collateral. The point is that funds are not the only wrappers that can unitise, fractionalise and pool portfolios. These new and much more innovative wrappers are also drastically contributing to the exodus from the original mutual fund concept.

FIDELITY DOES A 180

This is one of the most remarkable turnaround stories of recent years of a dyed-in-the-wool traditional asset manager.

One of the most legendary traditional active stock-picking firms, Fidelity, was steeped in trying to beat benchmarks and known for its star managers, like Peter Lynch, who boasted enviable track records that made any advisor or wealth manager throw client assets at them. But, around 2010, Fidelity lost its way and was on the brink of being marginalised (like Kodak or Nokia) by refusing to fix what it thought wasn't broken.

However, when Abigail Johnson took over as CEO, she turned the company around, converting the broken asset manager into something quite unique. In 2019, Johnson told the Financial Times,

> *"Every business has to change. If you don't change, you're by definition either on your way to atrophy or you are atrophying. The world changes, you have to evolve your business and challenge yourself to say, "Where are things going?"*

Fidelity was in deep trouble, with no real competitive advantage, massive asset outflows and no strategic direction. When she took the helm of the firm that her grandfather founded in 1946, Johnson started cutting costs, improving efficiencies - **and started spending billions of dollars on technology, particularly data and risk-index platform technology.**

Fidelity was extremely late to the index revolution and certainly missed the 'first starter' advantage in ETFs by many years. But, the company took the index concept and pushed it further than anybody else – and, in doing so became pioneers of what is known as '**self-indexation**'.

Fidelity realised that traditional fund management was broken and **reinvented itself with new distribution models and radical new portfolio technology**

Instead of paying index license fees to track the S&P500 or the MSCI World indices, Fidelity built their own indices – **which meant that their margins were higher t**han other ETF and index fund managers. In addition, they launched the first zero-fee index fund in 2018.

Today, Fidelity has surpassed State Street Global in terms of assets under management and is the third largest asset manager in the world, with over $4tn under management and over $10tn under advisement.

It was Fidelity's **drive to de-aggregate into cheaper, modular and quantitative strategies that got them major praise from advisors and other platforms** tired of star managers selling past performance. The diversification of revenue away from its original active-only funds has been impressive – and the underlying theme is mass customisation.

As a result, Fidelity's growth comes from corporates to manage their pension schemes directly, sophisticated wealth investors wanting to build their own balanced solutions, private clients handing over their savings to its financial advisors and from fast growing investment firms, selecting Fidelity as a custodian.

Fidelity has also industrialised what is broadly called '**Direct Indexing**'. This major growth area delivers highly customised, tax efficient, private portfolios to investors, rather than funds.

Coupling direct indexing portfolio infrastructure to risk-budgeting is an area that traditional fund managers and wealth platforms could significantly benefit from, provided they are willing to move beyond a funds-only business model. Direct indexing is also more efficient than ETFs. This is because direct indexing offsets capital gains tax at portfolio level – which investors incur when they buy and sell an ETF.

In April 2022, Fidelity aggressively launched their Fidfolios offering - a fully integrated direct indexing platform that very effectively blends both rules-based index thinking with active risk-budgeting.

In effect, Fidelity has strategically metamorphosed itself from a large institutional and traditional active mutual fund manager into a new-age wealth and advisory platform that is gathering billions of assets in private and corporate portfolios with significant ability to adapt to clients changing needs. Said Johnson: *"The goal has always been to grow the business beyond the success of the active equity funds. These [new] businesses started small and we worked on them, and now they aren't so small anymore."*

Mass Customisation is the fastest asset gathering model but it requires **portfolio and risk technology coupled to dynamic client data.**

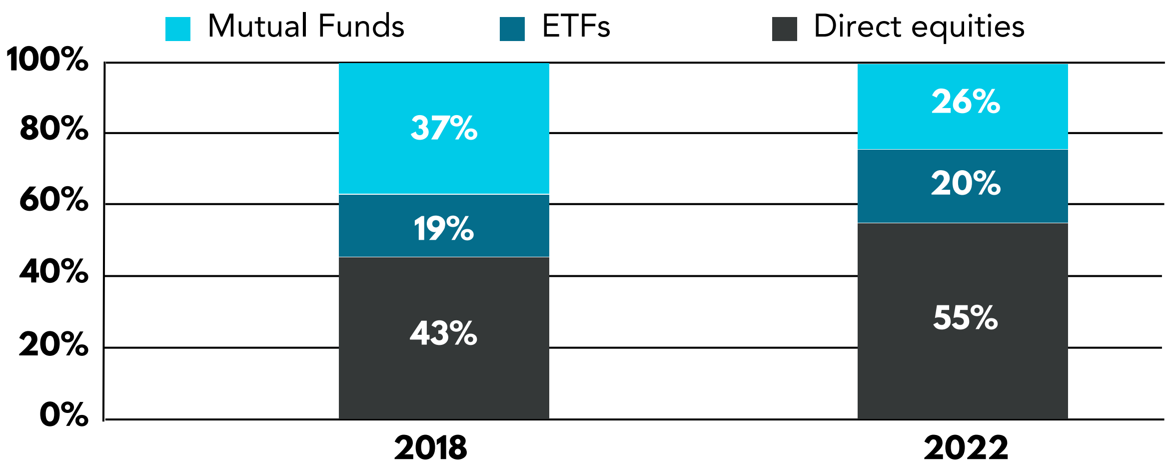
Direct Indexing and Active ETFs enable Risk-Budgeting

This is what a Bloomberg report said about Direct Indexing: "*an index strategy that's all about customization (and) is expected to grow faster than other investment vehicles over the next four years as investors' desire for personalization intensifies.*" Cerulli Associates predicts that Direct Indexing will grow faster than ETFs and will further exacerbate the exit from traditional mutual funds for many years to come. Direct Indexing has even been called the 'ETF Killer'.

While Direct Indexing is currently replicating index funds like the S&P500, the technology (that can run thousands of segregated accounts, coupled with customised risk-budgeting) is rapidly allowing leaders in this space to do much more than just track an index more cheaply.

Vanguard, DFA, BlackRock, Charles Schwab and other global heavyweights (including investment banks) are snapping up Direct Indexing technology providers and muscling in on this burgeoning asset gathering concept because it allows them to unleash risk-centric journeys for clients in separate managed accounts (SMA), which was not possible to deliver in scale before.

Figure 5: Investment Allocation Held by 'High Net Worth 2' Group



Source: Broadridge (https://www.broadridge.com/assets/pdf/broadridge-us-investor-study.pdf)

All of the above portfolio management innovations will, together, significantly impact the business models of most investment management role players, including wealth managers, independent advisors, asset managers, LISPs, insurers, asset consultants, fund administrators, custodians, fund-of-fund businesses and hedge funds.

In a nutshell, the traditional 'fund wrapper' is being replaced with **smarter 'portfolio wrappers'.**

KEY POINTS OF THIS SHIFT IN THINKING

A now widely quoted survey conducted by Broadridge in 2023, which used billions of data points collected after surveying 90% of households invested in mutual funds, uncovered three key points about this trend, which are:

Democratisation is on the rise:

New investors, across all age segments, are entering the market. Investing is now longer the domain of only the highly financially educated.

The next wave of investors:

Today's investors are extensive users of online platforms. And they are including more products in their portfolios.

Active mutual funds on the decline:

AUM in active mutual funds have declined across all wealth segments. Fewer than half of all investor households now invest primarily in active mutual funds.

The most striking data to come out of the Broadridge study is summarised in Figure 5. The survey polled various wealth segments, from mass market to ultra-high-net-worth investors, and the trend was found to be identical across all segments. Figure 5 shows the trend for the high-net worth group only.

What is striking about this data is that mutual funds shrank from 37% to 26% over a four-year period, while direct equity portfolios rose from 43% to 55%, which means that, for this wealth segment, investors now only hold about one-quarter of their wealth in mutual funds. This was also highlighted in an article by the Financial Times on May 15 2023, which stated *"US investors are deserting mutual funds in droves, but while exchange traded funds have been beneficiaries, the largest swing in recent years has been to individual stocks."*

Outside of the US, the trend towards mass customisation is also gaining momentum, while the shift to Direct Indexing is more muted. This is due to the fact that the tax loss harvesting benefits that are a major factor in the US, are less obvious elsewhere.

The use of Mutual Funds as the wrapper of choice for wealth creation is rapidly dwindling. Active and Passive ETFs, coupled to other non-fund wrappers, are picking up the slack

WHAT ABOUT PRIVATE SHARE PORTFOLIOS (PSPs) OFFERED BY LISPs?

Most traditional LISPs have, for a long time, offered what are called Private Share Portfolios (PSPs), which are a form of single managed account or customised portfolio. However, the ecosystems that are now being integrated around these basic private share portfolios is where the magic lies.

This is because, while having a private, long-only, customised portfolio might be great, if no one can tell you what your risk exposures should be, how they need to be changed or how to maximise your diversification, it doesn't help much.

Another issue is that most of the LISPs that offer PSPs confuse risk reporting with risk management. Risk reporting talks to what has happened to a portfolio, whereas **true risk management is about what can happen** – which relies on stress-testing and the simulation of thousands of possible outcomes. Without global cross-asset risk-budgeting software, LISPs are only able to offer risk reporting.

This presents a huge opportunity for the traditional LISPs to partner with risk-budgeting and mass-customisation technology providers (eg global banks, FNZ and Morningstar), provided the cost of the overall offering is competitive. Also, these LISPs need to move away from a fund-only supermarket approach towards co-administering listed products for advisors as well.

HOW DO ACTIVELY MANAGED ETFs FIT INTO THIS PICTURE?

While Direct Indexing provides useful portfolio efficiencies and interesting customisation benefits, the real future star-of-the-show seems to be Actively Managed ETFs. This single portfolio wrapper has the potential to do what passive ETFs and traditional funds could never do.

Passive ETFs have, undoubtedly, revolutionised our industry in the same way that Dell Computers revolutionised PC delivery. Their de-aggregation benefits allowed for the breaking up of balanced funds into asset classes, sectors, geographies, smart-beta and other risk factors, which empowered advisors and wealth managers to deliver low-cost holistic portfolio solutions that could easily be adapted and customised to changing client needs, while managing highly unique risk-budgets.

The problem with passive ETFs is that they have what we call a 'fixed underlying' – which means that, if the ETF tracks the S&P500 index or a global ESG index, it can do that and only that. You can't change the S&P500 ETF inside the underlying index to a small-cap value version of the S&P500. Passive ETFs are cast in stone at birth and can never change.

Active ETF is a fancy term for a listed mutual fund – which means that it can be a fully discretionary traditional fund that relies on human judgment, or it can be a dynamic, fully rules-based, portfolio strategy. And they have many benefits, which include:

BENEFIT

Active ETFs give product manufacturers universal, open-architecture shop windows (aka an exchange).

Once the Active ETF is listed and receives an ISIN, anyone with an online trading app can buy this listed portfolio strategy from anywhere in the world.

Listing an Active ETF is like selling your product on Amazon (as opposed to a mutual fund, which can only be found in a physical store).

BENEFIT

Studies show that Active ETFs cost up to 50% less than active mutual funds.

This is largely due to the fact that, if you list your Active ETF on an exchange, you benefit from economies of scale.

The stock exchange's share register becomes your custodian and the investor's stockbroker is the fund administrator (who also does the reporting).

BIGGEST BENEFIT OF ACTIVE ETFs

The biggest benefit (and innovation clincher) is that Active ETFs can manage or mitigate risk with a dynamic portfolio strategy **inside** the portfolio wrapper - whereas with passive ETFs you can only manage risk **across** the portfolio wrappers.

For example, with passive ETFs, in order to finetune the client's wealth trajectory and manage a customised and dynamic risk-budget, you have to physically buy and sell multiple ETFs, crossing bid-ask spreads and incurring tax events.

Active ETFs, to a very large extent, remove this clumsiness by enabling new ways to manage risk inside the product, eliminating product churn by moving the churn inside the listed instrument.

For example, while it is possible for traditional discretionary active managers to house an entire active stock-picking process inside Active ETFs, we increasingly see strict, rules-based risk management algorithms housed inside them too, making them much more precise for risk-budgeting purposes. Take for example, defined return ETFs or volatility-controlled ETFs or strategies that offer drawdown or tail-risk management.

This highlights that these are dynamic strategies that require some level of churn in order to mitigate risk, rather than try and beat an index. Investors don't mind churn during a crisis if loss mitigation is the goal, whereas they do mind churn in traditional mutual funds, when trying to beat a benchmark.

A major new trend is that **risk management is increasingly being embedded inside portfolio wrappers** rather than across wrappers. Passive ETFs can't do this.

Passive ETFs, on the other hand, were built to minimise churn given their buy-and-hold nature, which works fine until market conditions unexpectedly change. Cynics might say that passive ETFs that track market-capitalisation weighted indices, like the S&P500, cost virtually nothing because they do nothing.

They are designed to track the index as closely as possible – even if the index is falling 40-50%. So, passive ETFs guarantee you 100% of the upside and 100% of the downside for virtually no cost – and the only way to avoid plunging losses during a crisis (like COVID-19) is to sell out of it.

Active ETFs will change this. With smart Active ETFs that have built-in risk mitigation, like tail-risk management, you might not have to exit the ETF at all because the entire risk journey is smoother.

BUILT-IN RISK CONTROL

Volatility control has become a very basic, but effective automated way to manage portfolio risk (even though it is nothing new). Institutional portfolios that are managed by insurers and investment banks have been successfully using risk-control algorithms to target a level of volatility for many years - but now any advisor or wealth platform can use them too.

Volatility control methods are strategies that mechanically and actively allocate between a risky asset or index (like the S&P500) and a risk-free asset (like cash) to target a specific level of volatility. So, in low volatility periods, the method is fully exposed to the market, but as volatility starts rising above a threshold of, let's say, 15% per annum, the method proportionally sells out of the market and holds cash until volatility falls again, at which point the method moves back into the market.

The volatility of the S&P500 varies on the low side from 10% all the way up to 50% or more per annum. Higher equity volatility is almost always associated with negative returns. Avoiding these 'bad times' with sophisticated volatility control methods can significantly improve what passive funds and traditional active funds, that rely on human judgment, have been unable to provide.

ACTIVE ETFs ARE THE BEST WRAPPER TO UNLOCK RISK TECHNOLOGY

The neat thing about these types of active risk management methods is that they require no human intervention and, therefore, experience no delays from subjective human judgement or decision making. They watch the market daily to see if the level of volatility is rising or falling and might do nothing for months. But, when market conditions change and the risk threshold is breached, they immediately spring into action.

Active ETFs can efficiently and precisely house valuable and innovative tools for risk-budgeting. We are entering a period of huge progress in investment management which will allow us to automatically adapt to our constantly evolving surroundings.

In the same way that cars are now full of electronic sensors that constantly evaluate the environment, our portfolios will have 'safety' sensors calibrating and measuring appropriate ways to react. For the foreseeable future, Active ETFs are the best mechanism to achieve this.

Passive ETFs have already empowered index investing. Now, Active ETFs are able to empower active managers to reach new markets and embed new innovations in portfolio construction. The innovations that will grow and spread the fastest will be those that promote new ways to manage risk. According to BNP Paribas, overall ETF inflows are set to exceed €100 billion in 2023 alone as the asset class has become increasingly popular with individual investors and financial advisers in Europe.

Active ETFs are already growing faster than passive ETFs, achieving a 14% organic rate of growth in the first half of 2023, while passive ETFs grew only 3%, according to Morningstar's Global Fund Flows report for H1 2023. Overall, assets under management in active ETFs currently stand at nearly $600 billion. And, according to a forecast by Brown Brothers Harriman (BBH), Active ETFs should help the ETF industry grow to $30 trillion in the next ten years because "traditional asset managers are expected to enter the market."

And, finally, a recent Oliver Wyman report (2023) on the evolution of ETFs and investment management states: *"We expect a significant part of the growth to come from active ETFs, creating a revenue opportunity for the industry that asset managers cannot ignore — irrespective if they are active in the ETF space today or not. Those who are big enough and believe in this strategic opportunity will bear the investment and build an active ETF franchise on their own, while others will rely on support from white-label platforms which provide a cost-efficient infrastructure for fund initiators to launch their ETFs."*

Traditional Funds are Not Sufficient to **Customise Financial Journeys**

Blackberry's eventual demise is a case in point that demonstrates how quickly a business model can devolve by refusing to adapt to better technology and open access. This is probably a fair 'business school' summary as to what went wrong with Blackberry:

> *"The Customer experience is where BlackBerry turned out to be a laggard. Apple and Android were focusing on making their smartphone's software as open as possible by creating software that allowed anyone to develop and roll out apps. Meanwhile, BlackBerry only had a small selection of apps to offer and maintained focusing on their core services. That turned out to be a mistake."*

There are many parallels in investment management where closed architecture and private platforms are now being upended by listed products and open access that facilitate better client portfolio solutions with a full set of new risk-centric tools or apps.

In effect, advisors and wealth managers are looking for a fully open 'App store' that houses as many portfolio 'apps' as possible. Each of these apps should deliver a different, niche risk management benefit that wealth advisors can use.

As Blackberry users moved off the clunky Blackberry ecosystem and embraced iPhone or Android devices to gain access to better App stores, so too do traditional fund managers need to move their products from rigid fund platforms with fussy rules and gated access to stock exchanges (ie: the fully open App stores) for wealth advisors to 'download' and offer to their clients.

App stores created a platform for easily accessible, high quality apps - which weren't available on the Blackberry ecosystem

When fund managers put their unique app onto the exchange, they are effectively enabling others to build portfolios or risk solutions using the app as part of the overall solution. For example, Innovator Capital Management launched the Innovator US Equity Principal Protected ETF in June 2023, a portfolio app that is the first ever 100% capital guaranteed ETF launched in the US. Protected ETFs (also known as 'defined return' ETFs) are rules-based, automated funds that use derivatives - but are available to anyone to buy on an exchange. Advisors can choose to use this useful portfolio app that delivers an explicit defined return with a capital guarantee, unlike a generic balanced fund.

"I do believe these types of defined outcome ETFs will continue taking market share from annuities and other traditional structured products, which can be even more expensive and complicated, not to mention illiquid and possessing non-zero credit risk."

Well-known financial advisor, Nate Geraci, quoted in the Financial Times (July 18, 2023)

Defined outcome ETFs will take market share from annuities and other traditional structured products, which are more expensive and more complicated

The point here is that **new product innovation** and **new product access** are disintermediating traditional balanced funds, LISPs and other controlled marketplaces in a similar way to the Blackberry scenario.

EXAMPLE: BETTERMENT

Betterment is a rapidly growing, new-age, advisor-focused platform that has very basic, but effective, 'risk-budgeting' technology used in portfolio construction. Most traditional funds still apply static risk-budgets linked to some asset allocation, based on your age (eg so-called target-date funds) but Betterment monitors 'drift' away from the investor's customised risk-budget.

EXAMPLE: BETTERMENT CONTINUED

Betterment has three ways to optimise the tax efficiency around correcting portfolio drift:

- **Cash Flow Rebalancing when drift reaches 2%.**
- **Automatic Sell/Buy Rebalancing is triggered when drift reaches 3%**
- **Allocation Change Rebalancing, correcting drift when the advisor manually changes the target allocation.**

Betterment claims that although advisors provide an important 'human' advice role for investors, their platform delivers unbiased, transparent and technology-driven rebalancing that humans don't have the time to do. Betterment and other new-age advisor platforms also focus heavily on utilising cheaper listed products (open architecture) instead of the traditional, closed architecture platforms that rely on mutual funds only.

Where Betterment is a fully fledged financial advice portal, we are entering a period in investment management where start-ups can list active or passive portfolio strategies on exchanges and, with the right technology and media savvy, could grow as fast as some smart-phone app providers.

Take Greenwich, Connecticut-based Tuttle Capital Management, an ETF start-up that hired Citibank to launch, administer and trade their thematic ETFs. Within a year, their first ETF became the 5th most traded Active ETF indicating the appeal of its thematic concept. According to their prospectus, *"Tuttle has developed a proprietary multi-dimensional trend aggregation process that determines investment weightings. This involves combining methodologies that have different uncorrelated return streams, such as intermediate-term momentum and short-term countertrend strategies, with the goal of adapting to perform well in all types of market environments."*

Another example is Hong Kong-based Fubon Fund Management that started out managing their holding company's internal retirement scheme and, more recently, started managing retail assets. Fubon now has three thematic ETFs that they are growing by making them available to anyone globally.

Both of the above examples demonstrate that it is possible to start thematic funds for much smaller initial portfolio sizes and with quicker route to market than traditional mutual funds. We call this important trend, '**miniaturisation**'.

MINIATURISATION

These new distribution channels appeal to anyone with an existing client base or who needs scale quickly as global reach and distribution opportunities are exponentially greater with listed products.

Imagine that you are an author selling your self-published book by offering your book on Amazon. The obvious benefit of using Amazon is global access. Yes, there are millions of books competing with yours online, but there are also billions of clients globally. If you had to market your book globally without Amazon, the cost would be exorbitant. This allows you to reach scale much quicker, even though you started off small.

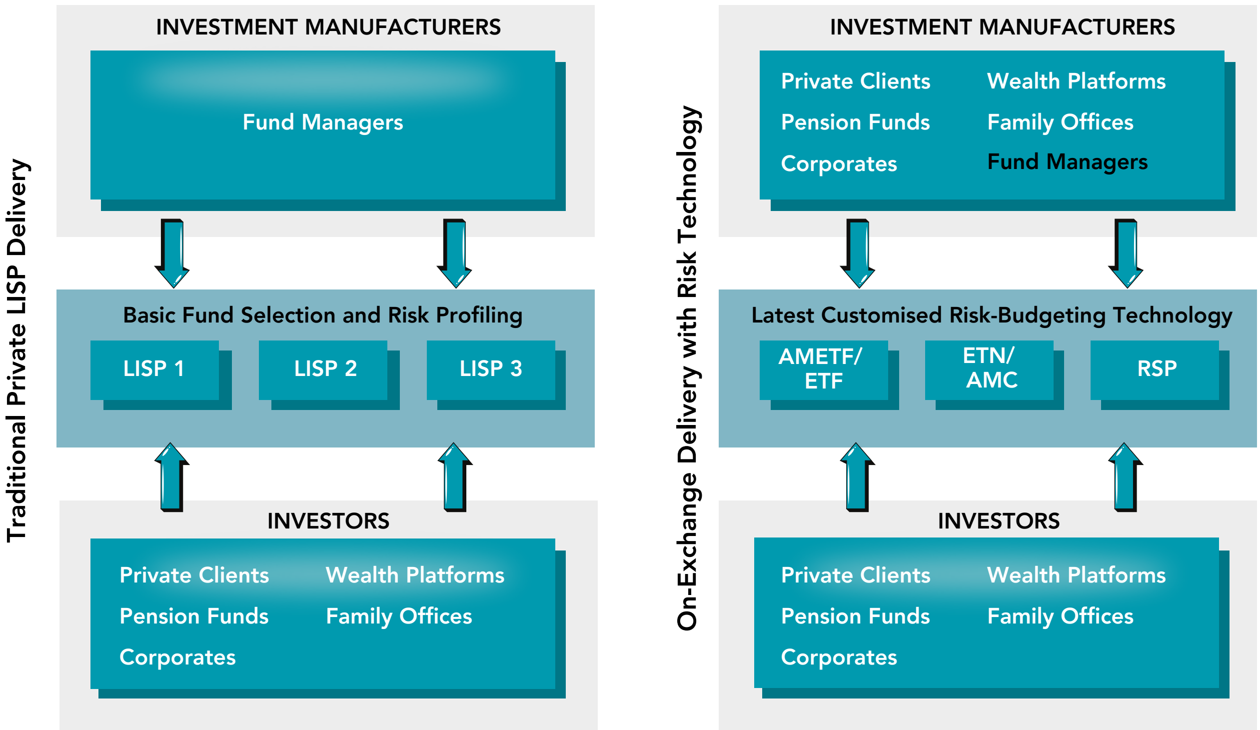


Figure 6: Investors are becoming their own Product Manufacturers

Legend:
LISP – Linked Investment Service Provider
AMETF – Actively Managed Fund
AMC – Actively Managed Certificate
ETF – Passively Managed ETF or Fund (eg index funds
ETN – Exchange Traded Note (eg issued by banks)
RSP – Retail Structured Product (eg capital guarantee)

Miniaturisation means that advisors and wealth platforms (or 'client owners') have a major competitive advantage. Until now, despite having clients, they haven't had the capability to design, build and launch their own quality or risk-managed solutions

Miniaturisation is, therefore, enabling clients of traditional fund managers to become product manufacturers themselves. Today, pretty much any industry role player can outsource the creation, management and branding of funds and other highly useful, non-fund, structured solutions, including wealth advisors, banks, private client stockbrokers, fund-of-fund managers, family offices, insurers, high net worth individuals, charities, companies, asset consultants and unions.

Well-known traditional funds, with every chance of continued success, like Bill Miller's eponymous Legg Mason Value Fund, can lose their way, while lesser-known managers become a huge success. Think of Rob Arnott, an academic known as the 'godfather of smart beta', who founded Research Affiliates and has built a very successful business on a concept known as 'fundamental indexation' (a fully rules-based index concept that does not weight portfolios by market capitalisation like the S&P500 index does). Using a largely formulaic approach that avoids behaviourally biased human judgement in traditional mutual funds, Research Affiliates has grown exponentially and today manages around $200bn of assets.

If you have an existing client base, a thematic idea or want to achieve scale quickly, it is easier to set up your own products than to outsource the product to multiple traditional mutual funds.

Previously, if you wanted to manage assets you needed to design, manage and distribute funds. Fund managers today don't need to rely purely on funds anymore to gather assets, as there are many other ways to manage wealth with miniaturisation.

> Lesser-known managers can quickly become a huge success with highly innovative listed strategies.

Aggregation vs De-Aggregation: The Netflix Approach

Netflix reinvented the business model for entertainment companies because they understood that data and client needs matter. Originally an intermediary buying in external content, Netflix used data gathered due to their proximity to the end client to now make, brand and sell their own client-focused content.

Traditional fund management, with flagship balanced funds, can be likened to big budget movie production companies who don't really have any data on, or relationship with, cinema goers. Similarly, fund managers lack any connection with the end-investors in their funds.

Netflix has deep data relationships that update daily. For example, client viewing habits and regional content demand allow Netflix to track the success of a series or new episode instantly – information that they have successfully used, via innovative data mining, to facilitate a form of mass customisation. Beyond this, Netflix's success is due to two main features of their business model:

It's a diversified business and revenue model. Netflix is an online distribution and streaming subscription service, which means that they don't have to rely on fickle box office success and can offer a huge bouquet of movies and series bought in from external producers without spending the hundreds of millions of dollars that is costs to produce a single two-hour blockbuster movie. As a result, **Netflix has a much lower setup-cost-to-revenue ratio**, unlike big budget production houses that have long-lead times to claw revenue back. Netflix also has over 200 million guaranteed 'bums on seats' every night.

Netflix now also **produces their own content**, called Netflix Originals, with much smaller and less risky initial budgets for each project, allowing them to attain scale more quickly. This is a shift from their original approach, which was to buy content from smaller, independent film production companies.

HOW CAN THE NETFLIX APPROACH WORK IN OUR INDUSTRY?

To create a new and diversified business and revenue model, wealth platforms, asset managers, advisors need to operate like Netflix – which means that they don't need expensive multi-year setup and marketing costs that are required to launch one or two mega flagship funds (which may or may not succeed).

Instead, they should look to broaden their range of niche, thematic and focused funds which, while they might never get to flagship status, are sustainable, profitable and quicker to set up for much smaller initial commitment.

Again, managing a bouquet of tactical and risk-centric portfolios, rather than hoping for the next blockbuster balanced fund makes most sense. What's more is that traditional funds are often messy to open or close and can take forever to get to scale. Also, once a flagship balanced fund has a period of poor performance, it is often extremely difficult to keep flogging a 'dead horse'.

Self-manufacturing works well, particularly if you develop niche geographical content like Netflix – which caters to local demand for local content – or thematic and innovative, risk centric products in the case of fund managers. Also, when you create your own product range, like Netflix, you can take a much bigger slice of the revenue, boosting your profitability.

The primary paradigm shift for fund management is coming to terms with how rapidly the traditional mega-fund 'aggregation' process (house-view portfolios, balanced funds, general equity funds, global funds, endowments) is being taken away from traditional funds because these generic, 'zombie superfunds' are increasingly unable to cater to individual needs. Investors are starting to view these as mass-produced products made for average investors with average needs.

Traditional mutual funds are like producing blockbuster movies that require huge scale and time to succeed. Intermediaries that think like Netflix can have more stable business models.

Interestingly, many passive ETFs have also become zombie funds. Examples are the original S&P500 ETF (SPDR), which is now bigger than $400bn, while iShares and Vanguard's S&P500 ETFs are at nearly $350bn each.

However, an important difference between active and passive ETF's and traditional mutual funds is that the ETF funds have grown so much because, as they are listed, they are now the portfolio 'ingredients' or modular building blocks that facilitate the de-aggregation of massive balanced funds, global equity funds and the like.

Asset gathering will, therefore, shift from pre-aggregation, to re-aggregation by advisors, wealth platforms and portfolio managers. These new-age aggregated solution providers will be able to manage 'downside' risk, provide guaranteed yield, offer dynamic and continual diversification algorithms, perform liability hedging as well as the explicit hedging of unwanted risks at individual investor level.

WHO PLAYS THE ROLE OF AGGREGATOR AND DE-AGGREGATOR?

> Fund managers need to find ways to monetise and distribute their capabilities, rather than their funds

With vehicle manufacturing, the manufacturing of components has been very successfully compartmentalised. Ford and Toyota don't make airbag units and airbag producers don't make cars, meaning the car manufacturer needs to insource these technical components. It would be silly for Ford or Toyota to set up their own internal airbag manufacturing facility.

Similarly, new-age wealth advisors who manage individual risk-budgets don't have the scale to create super low-cost ETFs, while big ETF providers, like Vanguard, are unable to manage individual client portfolios as well as wealth advisors can.

The issue with traditional fund management is that it tries to do both – manage the clients' aggregated balanced fund as well as manufacture all the 'ingredient' strategies for these funds (the internal equity and bond teams), which makes it very hard for them to adapt to changing market conditions and to customise risk-budgets.

THERE IS A SMARTER WAY

Large fund management houses that run traditional, aggregated, funds can also start to offer 'de-aggregated' versions of their internal teams, boutiques and thematic portfolio strategies to external aggregators, providing valuable new revenue growth.

Using a car analogy again, consider Tesla. The market has always questioned whether Tesla should be a vehicle manufacturer (aggregator) or rather a sophisticated, alternative-energy technology company that designs and sells solar panels and vehicle batteries. Its market valuation certainly suggests that investors believe Tesla is worth much more than vehicle assembly.

One day, Tesla may be overtaken by higher quality EV vehicles coming out of Volkswagen, BMW, Mercedes and Audi. But that doesn't mean Tesla can't 'de-aggregate'. Imagine Tesla were to stop selling cars and start selling their real competitive advantage, sophisticated EV technology, to other 'aggregators' or vehicle assemblers.

Similarly, large asset management companies should accept that they have unique internal intellectual property and skills that other aggregators might want, which is how BlackRock has evolved into being so successful at delivering low-cost, modular components for advisors to assemble in a myriad of mass-customised ways, and even providing the technology for them to assemble their own portfolio solutions and manage hundreds of customised risk-budgets.

BlackRock was able to successfully morph from its original days of traditional active management, earning revenue from aggregation of very big, mass-produced funds into earning substantial revenue from de-aggregation too, by supplying low-cost passive, rules-based, risk-centric portfolio components that are essential for mass-customised risk-budgeting.

But they didn't stop there. BlackRock committed strongly by investing in Aladdin - the crucial technology backbone for other aggregators. As a result, the company supplies portfolio components for mass-customisation AND empowers advisors and aggregators who want to use their ETFs and other active quant portfolios, supporting them with the best risk-budgeting technology platform too.

This is the equivalent to Tesla or VW allowing anyone with an existing client base to design, assemble and brand their own customised vehicles inside a VW or Tesla assembly plant.

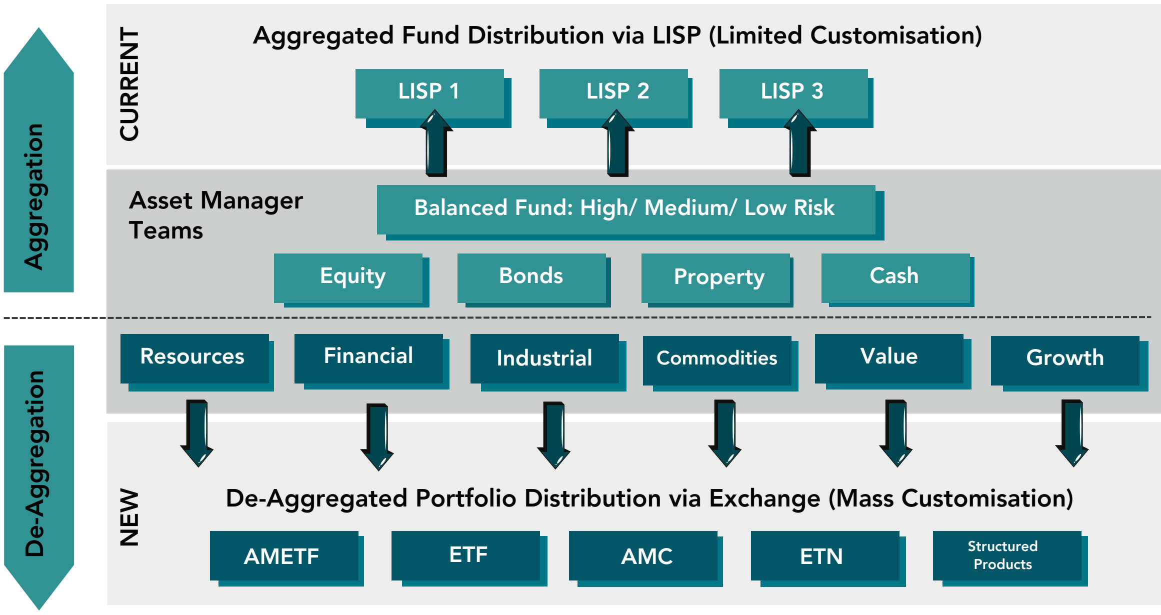


Figure 7: De-Aggregation provides asset-gathering directly into internal portfolio strategies

THE IMMEDIATE OPPORTUNITY IS TO HAVE TWO SIMULTANEOUS DISTRIBUTION MODELS

Figure 7 illustrates that traditional fund managers can continue to sell conventional mass-produced balanced funds, while carving up skills sets internally and empowering their own teams, analysts and portfolio managers to sell their own 'products' and, in doing so, become de-aggregated portfolio component suppliers.

In a traditional fund management business, the business revolves around 'cash cow' funds – the flagship balanced funds that get the lion's share of the marketing budget and a lot of the CIO's attention. But is this a smart business model?

To deliver this, the CIO often has to manage a large number of people, including specialist teams covering asset classes (equities, bonds, commodities), sectors (Financial, Resources, Industrial) or geographies (global developed and emerging markets). Some firms even have specialist teams covering an investment philosophy like value or growth.

Ask any CIO about combining these teams and portfolios into a coherent, single risk-budget balanced fund or house-view portfolio and they will tell you how difficult and risky it is. If you get your 'aggregation' or asset allocation wrong, you could underperform for a long time, lose track record and sacrifice revenue for years to come.

Which is why fund managers stick to peer group benchmarks. The consequence of this, though, is highly correlated competing products that, in turn, prevent proper individual risk-budgeting and mass customisation.

> It is critical that fund managers have both off-exchange and on-exchange distribution to maximise growth into new markets

It is well documented that this type of traditional, pre-aggregated, business model is slow to adapt to changing market conditions, as important investment decisions need to go through the investment committee for approval, resulting in long delays to implement any changes. The model is also extremely vulnerable to behavioural biases because the entire process is driven by human judgment (and, at times, internal politics). Think of this type of business as a ship at sea – everyone on board is heading to the same destination, whether they want to or not, and the captain has to get them all through stormy seas (which may or may not allow them to reach their desired destination on time). Also, once you're onboard, you can't get off.

Without the ability to de-aggregate and sell internal strategies and intellectual property directly to the market, these traditional fund management houses are forced to rely heavily on expensive marketing budgets to maintain brand awareness.

INSTEAD OF SELLING THE SUM OF THE PARTS, SELL INDIVIDUAL PARTS

Traditional fund managers have always lacked access to private client stockbroking and wealth management, as advisors from these disciplines prefer to build and manage portfolios, rather than commit clients to single-journey funds. And, it is these advisors that are being significantly empowered with new risk-budgeting technology and are building their own mass-customised, balanced funds.

As a result, there is a significant growth opportunity for traditional fund management houses to list their sub-strategies and 'sub-portfolios' (output from their portfolio specialists) directly on exchanges, allowing other aggregators to use their niche or thematic intellectual property.

EXAMPLE

You might have a specialist internal team of portfolio managers that manage a novel ESG-themed emerging market portfolio or a special low-volatility momentum strategy, but it gets drowned out or diluted by the CIO who only allocates a small slice of the balanced fund's asset allocation. Why not list this unique portfolio on an exchange as an AMETF or AMC, allowing other aggregators and advisors to invest directly into your internal specialist teams' efforts.

Many traditional fund managers are finding that the sum of the parts is not as great as the parts themselves when it comes to running balanced funds. You can have great internal teams and strategies, but the aggregation is actually very hard to get right.

Gathering assets at aggregate balanced fund level AND at de-aggregated portfolio strategy level provides welcome broadened revenue opportunities, while mitigating the risk of relying too heavily on a single flagship fund.

In the long term, the effect could be that the entire fund management industry 'unbundles' or fragments into a myriad of smaller, tactical and thematic portfolio strategies that are then aggregated and assembled, by new industry role players with the right technology that can easily allocate to these listed components, into risk-centric, highly bespoke journeys for investors.

IS THE TREND TO MASS-CUSTOMISATION AN ENDORSEMENT FOR BOUTIQUE FUND MANAGERS?

The argument for de-aggregation doesn't necessarily mean that boutique managers will flourish over large, multi-disciplinary asset management houses. This is because, although they may not admit it, boutique managers often aggregate, just like large fund management houses do, and sell mass-produced, one-size-fits-all balanced or global equity funds that also languish on LISPs.

We see the boutique managers of the future moving away from only managing funds towards selling their intellectual property as portfolios, trading signals (as many quant shops already do) or wrapping their unique selling points in non-fund wrappers and listing them.

Wealth managers would prefer these boutique strategies on exchange for them to incorporate into individual risk budgets. This is equally true for both large, multi-disciplinary investment firms and for boutique managers.

> Boutique asset managers will benefit strongly from being able to offer thematic strategies and/or can manage risk dynamically. The same is true of large asset managers.

To return to an analogy that we used earlier, we see fund managers increasingly becoming specialist 'tradesman' and moving away from generic funds. So, instead of selling the same type of average bread as other bakeries or supermarkets, we see them selling artisanal baked goods that clients cannot buy in a supermarket. As a result, some may even give up selling traditional bread altogether.

New Wrappers = New Growth

How will fund managers of the future, design and deliver these component parts to advisors, wealth platforms and Discretionary Fund Managers (DFMs)? We will describe how these new portfolio wrappers that house specialist or de-aggregated niche portfolios are being implemented by well-known industry role players.

BBH highlights that many *"US managers have opted to convert mutual funds into an active ETF and the introduction of the semi-transparent active structure has acted like a boon for growth. In addition, many European ETF asset managers have launched active strategies in the last number of years."*

The growth trajectory of traditional funds (like Balanced Funds) is rapidly slowing as wealth platforms look for new, more flexible and easily accessible portfolio wrappers

Traditional active managers who want to expand into listed funds are increasingly dipping their toes into new distribution opportunities, via white-labelled ETF service providers who can bring an Active ETF to market within weeks and at smaller scale.

"Those who want to launch an ETF face several challenges, including the high cost of setting up an ETF infrastructure, the high risk of failure, and difficulty in finding the right people with expertise in ETFs. These challenges have given rise to a new trend in the ETF market — the emergence of white-label ETF providers. This relatively new business model allows fund providers to quickly bring their strategies to market. White label ETF providers offer their investment trust, custody, fund administration, portfolio management, and marketing and distribution services, thereby creating economies of scale and reducing the financial risk and operational challenges for small fund providers in launching an ETF."

Oliver Wyman

CASE STUDY: DIMENSIONAL FUND ADVISORS (DFA)

One of the best examples of how seriously large players are taking the de-aggregation trend and the get-your-products-to-new-markets approach, is Dimensional Fund Advisors (DFA), a highly successful provider of portfolios to advisors in the US (and they're growing globally).

DFA's founders learned from the 'fathers of factor investing', Nobel laureates Eugene Fama and Kenneth French, how to 'mechanise' access to rewarded risk premia (like value, quality, momentum and small-cap investing), using rules-based index funds.

DFA claim that almost all excess returns (ie alpha) from traditional active stock-picking 'skill', can be attributed to three or four common risk premia that anybody can track.

Their business model, backed by decades of research, effectively 'unbundles' or de-aggregates what active stock-pickers sold for a premium, via higher cost traditional mutual funds. DFA also offers advisors the ability to combine these same market risk premia with their own 'portfolio-builder' technology (aka risk-budgeting software).

Where Vanguard may have championed the lowest cost market access, DFA are leaders in the drive to lower costs of accessing valuable, excess return, risk premia for their clients. Over the last 18 months, DFA have embraced actively managed ETFs like nobody else has in their bid to broaden the accessibility to these important portfolio components for anybody to re-aggregate globally.

The Financial Times (July 14, 2023) reported that DFA, who manage nearly $650bn and have grown their ETF book to $95bn over the last 3 years, is now seeking permission to offer ETF share classes for all its 112 US mutual funds (which amounts to moving $400bn of assets into entirely new, on-exchange, listed solutions). No other fund manager has taken this 'all-in' route to entirely switch, over time, to Active ETFs, leaving their original mutual fund distribution model behind.

In their SEC filing, DFA makes their intention very clear: "ETF class shareholders will be able to benefit from more efficient rebalancing using mutual fund cash flows and lower total portfolio transaction costs, as well as the benefits of scale."

Technically speaking, a mutual fund's total expense ratio (TER) should be roughly the same as an ETF wrapper. Depending on how advisors access unit trusts or mutual funds, the platform costs (LISP platform fees and other intermediary charges, etc) over and above the TER, are often higher than buying the funds directly on an exchange.

DFA is being aggressive and passing on these lower cost benefits by pricing their ETF expense ratios lower than their overall mutual fund fees because of potentially much higher growth, direct access via the exchange and due to the higher scale in listed funds.

CASE STUDY: GMO

Founded in Boston in 1977 by Grantham, Mayo and Van Otterloo, GMO took a contrarian, bearish investment stance to the markets, holding the view that undervalued assets will revert to the mean – as a result, the firm has reputedly successfully called economic bubbles. At its peak in 2007, GMO had $155 billion in assets under management (AUM), dwindling to just above $50 billion of late.

GMO is the most traditional of asset managers: fiercely independent and proud of their benchmark-agnostic deep-value proposition, despite many of these funds suffering for long periods. The odds, therefore, of GMO ever being associated with cheap, listed, ETFs was extremely slim, until now.

It would appear that GMO has opted to market a 'spicy' thematic and focused portfolio version direct to advisors and other aggregators. The Financial Times (August 2023) quotes a GMO spokesperson: *"GMO has always been committed to offering innovative investment solutions in the structures that best suit our clients. Our extension into exchange traded funds is a natural evolution of that commitment, driven by demand from the intermediary and wealth management space."*

GMO recently filed an application to list an Active ETF that delivers a listed fund version of their thematic Quality portfolio. Investors have a choice now – they can continue to invest in the (flagging) flagship general equity mutual funds that GMO offers, or they can buy a front row seat for a more focused GMO thematic portfolio strategy listed on the stock market, via an ETF.

In the same article, Daniil Shapiro, director of product development at Cerulli Associates, explains why traditional active managers are seeing listed Active ETF distribution as something to embrace. He said: *"A key challenge at this stage of the market is finding a niche for a product, and while this often sends upstart firms in the wrong direction, often via overly targeted exposures, there is plenty of room for trusted managers offering active exposures."*

ADDITIONAL SOURCES THAT SUPPORT THIS APPROACH

The 2023 Broadridge survey estimated that, across the US and Europe, pure passive mutual funds had an average management fee that was 19% higher than listed pure passive ETFs. For pure active funds, **Active ETFs were 49% cheaper than the equivalent, unlisted traditional active mutual fund**s.

A 2022 Financial Times survey into listed products like active ETFs quoted Elisabeth Kashner from FactSet who said:

> *There are a lot of asset managers that have determined that the ETF is the path forward, the way of growing their business or slowing the decay of their business, so there has been a big push from the management side." Kashner goes on to explain that asset managers who offer both types of vehicles were increasingly likely to "turn their marketing muscle on their ETF product."*

The 2023 Oliver Wyman report into ETF trends supports this view: ***"The exchange-traded funds landscape is just embarking into a next stage of growth — this time fuelled by the rise of active ETFs."***

When a manager lists their traditional fund as an Active ETF, it changes its status from a one-size-fits-all fund to a **customisable portfolio 'Ingredient'.**

Cathie Wood's success with ARK Invest is possibly the best example of what Active ETFs can do for an asset manager frustrated by the big aggregation machine. Her decision to originally list Active ETFs without the need for mutual funds and LISPs is what single-handedly launched ARK Invest as a new-age asset management firm that almost entirely relied on distribution via exchanges.

As CIO of global thematic strategies at Alliance Bernstein, Wood had several ideas for focused funds that tried to capture companies facilitating disruptive technology. When Alliance Bernstein labelled her thinking as 'too risky', she broke away and founded ARK Invest.

By October 2014, the company had launched its first four listed active funds: the Innovation ETF, the Genomic Revolution ETF, the Next Generation Internet ETF and the Autonomous Technology & Robotics ETF, followed by the Fintech Innovation ETF and the Space Exploration & Innovation ETF.

In December 2020, the Innovation ETF became the largest Active ETF, with $17 billion in assets under management and a 170% return. The following year, ARK Invest became one of the top 10 issuers of exchange-traded funds, with about $50 billion in assets under management (although this has now dropped to around $15 billion after a period of poor performance).

Despite its recent drop in fortunes, the key point is that, without the Active ETF wrapper and new de-aggregated distribution opportunities that come with it, ARK Invest would not be where it is today. Many more exciting, start-up, asset management companies will be founded like this going forward, by not having to rely on the original mutual fund concepts and their traditional distribution models.

THE CASE FOR AMCs

AMCs or Actively Managed Certificates are wrappers that can be issued (or listed on an exchange) by banks or other issuers, for even smaller initial seed capital than Active ETF's. In essence, an AMC is a unitised structured note, that offers investors access to an underlying active portfolio of assets that behaves exactly like a traditional fund, but for much lower set up costs.

Unlike traditional structured notes, where the underlying assets (stocks, bonds, commodities) remain static throughout the term of the contract, AMCs allow portfolios to be dynamically rebalanced based on the discretion of the portfolio manager or advisor.

Advisors and risk-budgeting platforms can buy and sell these portfolio strategies as long-only instruments or with embedded capital guarantees and derivative payoffs just like any other listed security, giving advisors much more flexibility than traditional funds can offer.

AMCs therefore facilitate much more innovative risk-budgeting strategies, allowing them to compete head on with annuities, endowments and traditional hedged portfolios.

Note that AMCs carry issuer or credit risk as they are not physically settled funds. However, new AMC platforms are already successfully facilitating the issuance of AMCs as collateralised wrappers which can partially or fully remove issuer and credit risk.

AMCs have another interesting feature. A fund manager or advisor can list a single AMC, but each investor can enter the AMC via a ‘feeder certificate’ – which means that each investor has a different exposure to the same AMC. For example, a normal long-only investor could have 100% exposure to the underlying AMC portfolio, whereas a risk seeking investor could have leveraged exposure to the same AMC, while a more risk averse, conservative investor could buy a capital guarantee or a currency-hedged exposure to the same single AMC portfolio. Compared to funds, this opens up Pandora’s Box when it comes to customisation – and it allows for much more creative ways to deliver active portfolio strategies.

Given their flexibility and lower setup costs for small initial portfolio assets, AMCs are growing rapidly and stealing significant assets from traditional funds. Fund managers looking to access new distribution channels are eagerly using these ‘mini fund’ wrappers to build track record and raise AUMs immediately. Several media sources estimate the total assets under management for AMCs has already exceeded a trillion dollars. As a result, AMCs are also rapidly enabling de-aggregation and mass customisation.

For example, anyone with $1m or more, can now have their own branded, unitised and pooled portfolio, with or without a capital guarantee, that is listed on a local or global exchange by one of the global banks or other AMC issuance platforms. Traditional mutual funds and ETFs only start making commercial sense above $500m of initial assets under management.

Miniaturisation is how technology and new suppliers like banks and Insurers are allowing viable and customised, fund-like instruments for very low, ‘Start-Up’ assets.

The Dual Model

As a result of the disruption in traditional fund management, investment management houses are looking at their options for growth. Consolidation is always the most obvious, but not always the best, option.

Fund managers are already merging in droves to maintain critical mass. Deloitte reports that cost savings from mergers can be material (up to 60%), but the risks are high – inertia from amalgamating technology and distribution processes, cultural mismatches and messy layoffs. However, this has not stopped some of the oldest and most independent firms from merging. Franklin Templeton has merged with Legg Mason, Jupiter with Merian, Aberdeen with Standard Life, Janus with Henderson, Amundi with Pioneer and Bloomberg bought Barclays' passive index unit. In the US alone, between 100 and 150 merger deals are done in the asset management industry per annum.

There is, however, another more formal way that fund managers can strategically enhance their growth using listed portfolio strategies. Using a 'Dual Model', they can enter into strategic alliances with those who have access to new distribution channels, better client data and the latest risk technology.

The allure of a strategic alliance, combined with the ability to appeal to the rapidly growing need from advisors and wealth platforms to mass customise risk-centric solutions, could work particularly well for asset managers who have neither the capital nor the appetite to spend billions on building their own risk-budgeting technology platforms, like Fidelity and BlackRock.

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CASE STUDY: LENOVO'S DUAL MODEL

IBM's merger with Lenovo created a successful, fully integrated, strategic platform that caters to large business clients, while offering mass customised retail distribution. This is an example of a more synergistic and successful collaboration if compared to other large mergers in the technology industry that have a very high failure rate.

Studies of the Lenovo merger show very low overlap between the two companies, in terms of client bases, functional capabilities and distribution processes. In other words, one plus one equals three.

IBM had very loyal corporate clients, with big project budgets and was not well-established in the retail market. It had a very strong presence in developed markets, but very weak coverage and market share in emerging markets.

Lenovo, on the other hand, was well versed in doing business in emerging economies and focused on mass customisation, with a flexible approach that allowed it to manufacture personal computers with adaptations that met needs across geographies. The benefits of collaborating were obvious.

Timing also helped the merger significantly. At the time of the merger in 2005, growth in emerging markets for personal computers took off. Lenovo went from less than 2.5% world market share, with virtually no sales outside of China to the largest personal computer manufacturer globally with over 20% global market share. By 2013, 60% of sales were outside China.

However, the success of this merger was largely attributed to their 'dual-model', which was unique to Lenovo. IBM facilitated access for Lenovo to the corporate lease and maintenance clients, allowing Lenovo to build a name that opened doors to the personal and SME transactional laptop and PC market, at a time when other hardware vendors believed that there was no reason anyone would want a computer at home. A former Lenovo board member describes it like this: *"It prepared us to compete in the global market and allowed us to ride the wave of the rising demands of transactional type customers while simultaneously maintaining strong and close relationships with corporate users worldwide."*

WHAT DOES THE DUAL MODEL MEAN FOR INVESTMENT MANAGEMENT?

In the IBM/Lenovo example, the market for 'computers' bifurcated into two distinct directions, each with different needs and delivery mechanisms. The home and SME markets needed mass-customised computers, while large corporations needed customised computers, coupled with servers, firewalls and other infrastructure – which is why the Dual Model worked.

Investment management is bifurcating too, which is best seen in the shift of assets under management from fund management to wealth management. This has parallels in IBM missing out on explosive growth in the customised personal computer space (which is later regained through the Lenovo partnership).

It is important to note that IBM didn't sell more mainframes by partnering with Lenovo. In the same way, the long-term aim should not necessarily be for a traditional fund manager to sell more, one-size-fits-all balanced funds by partnering with somebody who offers a new distribution channel.

Instead, large fund managers looking to maximise growth need to find their own 'Lenovo' partner and use their portfolio engineering expertise and internal specialist portfolio teams to supply this new strategic partner with innovative 'Lego' blocks to mass customise portfolios.

DUAL MODEL EXAMPLE

Bloomberg buying Barclays' fixed income index business is a good example of a synergistic dual-model. Bloomberg has tons of data but no product and Barclays has tons of product that can't be customised.

OTHER EXAMPLE

In contrast, two large, traditional asset managers merging - like Janus Capital and Henderson Group will require work to ensure that, over time, one plus one does not equal one.

In the past, success in fund management relied exclusively on product and distribution. Today, success will mainly belong to those who can **add risk technology and use it to customise financial journeys.**

The most successful future asset gatherers will be those who get three things right:

- Product
- Distribution
- Access to mass-customisation technology (ie: risk-budgeting)

In the past, it was only about product and distribution. Not anymore.

More specifically, traditional fund managers need to partner with industry role players who specialise in what they don't have. High growth will come from access to:

- New mass-customisation 'portfolio assembly' platforms
- High-frequency client data with advice, not fund, infrastructure
- Latest, dynamic, risk-management execution technology

Combining these three elements across individual risk-budgets with more flexible and accessible listed portfolio wrappers (ie Active ETFs, AMCs and structured solutions) is how to gain scale much quicker than trying to build and maintain growth with mega-funds only.

Through their partnership with Lenovo, IBM learned that they didn't own the high ground anymore as they had not set up to mass customise. In the same way, sophisticated financial solutions are no longer the sole purview of traditional fund managers.

Whether they be advisors, wealth managers, corporate pension members or self-directed millennial investors, with the right technology, anyone can aggregate their own balanced funds and better control their financial risk journey with adaptable portfolios and the potential to immunise explicit risks at any point in time.

The barriers to entry are crumbling and the playing fields have been levelled. The new competitive advantage is creating explicit risk-managed journeys for clients. Large fund managers need to find their new value proposition in this evolving landscape and only those with deep pockets and strong leaders can go it alone. The rest will need to find strategic partners, rather than merge.

> Advances in vehicle technology have almost exclusively been focused on safety, rather than on ways to improve driver skill.
> The same will be true of Portfolio Risk Management.

Conclusion:
It's a new dawn – not a sunset

As with many other industries that have been shaken to the core with the entry of new technology, investment management is in the grip of disruption and disintermediation caused by the growth of the latest risk management customisation technology.

Old methods that relied almost exclusively on human judgement when managing portfolios are being replaced with smart and faster portfolio technology to minimise exposure to loss. Old, private distribution platforms are losing ground to newer publicly listed distribution platforms.

However, change brings opportunity – for those that are willing to change.

Industry thinktank, Edhec, has conducted cutting-edge research into how our industry needs to change and believes that we are on the cusp of a new dawn.

"I do believe that our industry is truly about to experience something that looks like an industrial revolution, an industrial revolution which will take place within the next 5–10 years. We currently are at the confluence of historically powerful forces. On the one hand, liquid and transparent access to risk premia harvesting portfolios is now feasible with smart factor indices, which are cost efficient and scalable alternatives to active managers. On the other hand, distribution costs are bound to go down from their stratospheric levels as the trend towards disintermediation is accelerating through the development of FinTech and robo-advisor initiatives, which are putting the old business model under strong pressure, and forcing wealth management firms to entirely rethink the value that they are bringing to their clients. Risk management, defined as the ability for investors, or asset and wealth managers acting on their behalf, to efficiently spend their dollar and risk-budgets, so as to enhance the probability to reach their meaningful goals, will play a central role in this industrial revolution that will eventually lead to scalable, cost-efficient, investor-centric, welfare-improving investment solutions."

Lionel Martellini, Professor of Finance – Edhec Business School

So, who will the winners be in this rapidly evolving landscape?

Those who have strong, close relationships with their clients hold the competitive advantage – and will, increasingly, use the in-depth knowledge of their client's changing needs to build and launch their own aggregated, risk-centric, portfolio solutions.

Mass customisation has to sit with the advice process and be separated from the product manufacturer. Access to high frequency customer data is what drives customisation. It cannot sit with traditional mass producers or mass aggregators (like balanced fund managers, house-view committees, general equity funds) because their value proposition is to produce one solution for everybody, where, in reality, clients want something personal. As a result, flagship funds that service anonymous investors will be less relied upon in future.

Todd Rosenbluth, head of VettaFi, sees growth in customisation continuing*: "Investors have more access to customised individual stock portfolios and ETFs than in the past and no longer need to rely on expensive and one-size-fits-all active mutual funds. Direct Indexing and ETFs will continue to gain traction as a younger generation accumulates more wealth."*

Investors are rapidly trusting technology more than human judgement, particularly for managing portfolio risk. In the same way that we don't think about how our ABS brakes work or how our mobile phone communicates with satellites, we will implicitly use technology to intervene and control our financial journeys.

For new-age advisors, past performance or award-winning managers are no longer necessary, nor sufficient, to win a competitive advantage. Risk-budgeting technology is now front and centre and, if correctly incorporated with a resolute focus on portfolio management rather than fund management, it can explicitly deliver smoother financial journeys for clients. The fund manager of the future will be a risk manager, not a benchmark beater.

For more strategic insights on the investment management industry: info@neobeta.net