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OLIVER WYMAN

BLUEPAPER

Wholesale Banks & Asset Managers

The World Turned Upside Down

Our new work suggests that in a reversal of fortunes Asset Managers now face intensifying top-line pressures from cheap beta and regulations, while Banks are primed for upside with regulatory shifts helping to drive RoE up by ~300bps.

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Joint Executive Summary

We see a reversal of fortunes for Wholesale Banks and Asset Managers. The effects of Quantitative Easing (QE) and bank regulation drove a more than $100BN divergence in revenues since 2011, with Asset Managers up $65BN and Wholesale Banks down $45BN. This now looks set to go into reverse. Asset Managers face growing fee pressures whereas Wholesale Banks will benefit from shifts in policy, technology, and operating leverage. But the gulf between winning and losing firms will widen in both Asset Management and Wholesale Banking.

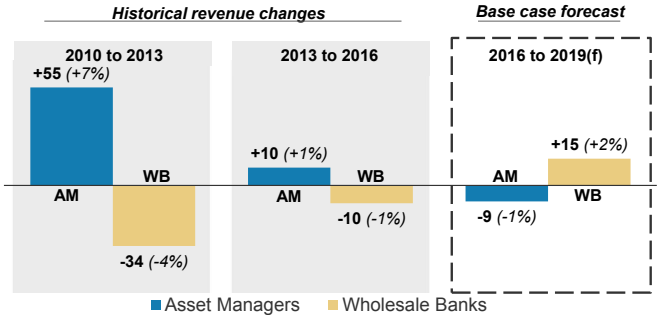
We expect six major drivers of value over the next three to five years:

- Intense fee pressure for Asset Managers, triggering cost programs and consolidation
- Re-engineering of active Asset Management, as seizing alpha opportunities becomes more critical than ever (e.g. unconstrained, private market assets, solutions)
- Increasing capacity and revenues for the Wholesale Banks, driven by a tempering of regulation and rising rates
- A structural shift in Wholesale Banking revenue pools, from institutional to corporate clients
- Pressure on flow trading and research, but growth in more capital intensive activities
- Technology driving down Wholesale Banking costs, but opening up new forms of competition

Exhibit 1:

World turned upside down

Change in revenues, Asset Managers vs. Wholesale Banks, 2010-19(f), $BN (% CAGR)



Source: Oliver Wyman analysis

Exhibit 2:

Pressure points and value are shifting across the securities industry

Total value captured 2016 $BN, Outlook to 2019

		Banks & Broker Dealers	Traditional Asset Managers	Hedge Funds & Alternatives	Market Infrastructure[1]	Boutiques & specialists[2]
Investment management	Retail service[3]	--	$30 - 35BN	< $2BN	--	~ $10BN
	Research, solutions, active management	~ $15BN	~ $105BN	~ $60BN	~ $25BN	~ $5BN
	Beta provision and administration	--	~ $80BN	~ $8BN	~ $50BN	--
Trading	Financing	~ $35BN	< $2BN	--	< $2BN	< $1BN
	Market connectivity	~ $35BN	$8 - 10BN	$20BN	~ $20BN	--
	Risk warehousing and recycling	~ $65BN	--	< $2BN	--	~ $5BN
Liability generation & advisory	Issuer risk transfer	~ $15BN	--	--	--	--
	Origination	~ $35BN	--	--	< $2BN	< $2BN
	Corporate advisory	~ $20BN	--	--	--	~ $10BN
Total value captured		**~ $225BN**	**~ $225BN**	**~$90BN**	**~$100BN**	**~$35BN**

Strong growth | Modest growth | Modest pressure | Severe pressure

1. Includes Inter Dealer Brokers, Exchanges, Central securities depositories, Custodians, Data providers.
2. Defined as organizations that participate in only one activity within this table, to include Non-Bank Liquidity Providers, specialist data providers and independent corporate advisory firms.
3. Represents the incremental costs borne by retail investors to access Asset Management services, not including retail distribution fees

Source: Oliver Wyman analysis

Asset Management

Revenue growth turning negative with secular industry re-pricing

Sustained fee pressure is a growing threat for Asset Managers. Margins contracted ~6% in 2016, more than offsetting modest growth in AUM and leaving revenues down ~5%. Fee declines were steepest at the ends of the barbell (passives and Hedge Funds) but pockets of resilience were hard to find elsewhere. Conditions for Asset Managers should improve over 2017-19 as QE recedes, rates rise, volatility increases and correlations decline, improving performance and driving up net inflows. The challenge is that the forces driving margin compression appear unlikely to abate. Our base case is for fees to compress a further ~10% by 2019 compounded by a ~7% revenue decline arising from shifts to lower fee products offsetting asset growth to leave total revenues down ~3% 2016-19.

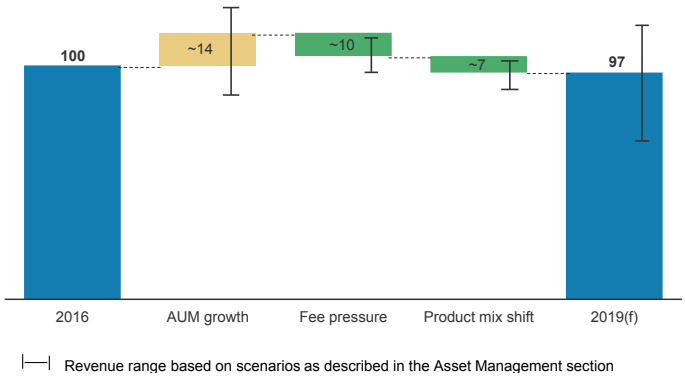
Our analysis shows that the link between fund performance and asset flows is breaking down. The shift to passive is well understood but the market may have underestimated the extent of change underway in active. The correlation between fund performance and flows has weakened, with fee levels becoming the more important driver. Flows between active funds are still ~2.5 times greater than flows from active to passive, meaning pricing strategy and accessing pockets of growth become ever more important.

Downside risks outweigh the potential upside. We see growing focus amongst end investors on the absolute level of returns after costs, meaning fee pressures would be heightened in a lower return environment, exacerbated by a regulatory push for transparency. We outline two bear scenarios - one built around persistent low returns, the other around a classic boom/bust cycle. In both scenarios, 2019 revenues are down ~30% vs 2016. Our bull case is for ~17% revenue growth driven by growing AUM and moderating fee pressure.

Exhibit 3:

We expect revenue to be lower in 2019 with AUM growth failing to compensate for margin compression

Base case indexed revenue outlook, 2016-19(f), 2016 indexed to 100



Source: Oliver Wyman analysis

The core proposition must evolve, blurring traditional product lines

Fundamental changes to the core proposition will be required to meet the challenge. Managers would be mistaken to think that cost reductions alone will be sufficient to address what we believe will be a multi-year process of adjustment. Approaches will vary by Asset Manager, but we expect to see many re-engineering the role of portfolio management as they look to either provide returns more cheaply or explore ways to generate more sustainable alpha. For example, we expect growth in high active share funds, unconstrained strategies and solutions as well as a growing adoption of risk factor approaches to investing. Traditional boundaries between active and passive, and between core active and alternatives, will blur as firms seek to access growth.

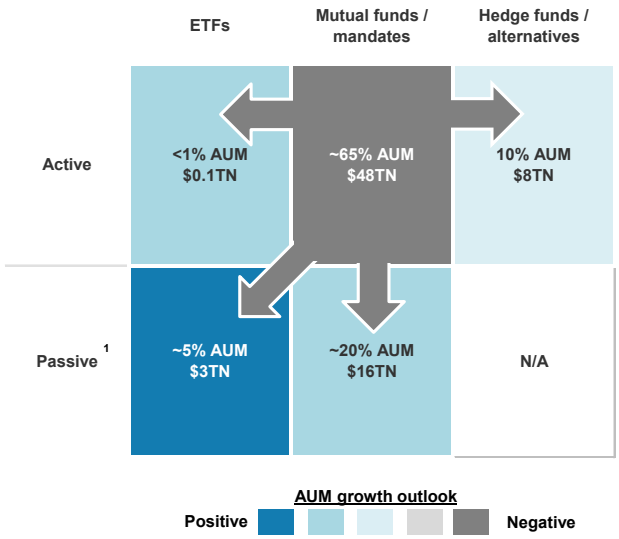
Ironically, active Asset Managers themselves could reinforce growth for passive providers. Asset allocators are increasingly using near-zero cost Exchange Traded Funds (ETFs) to source beta, allowing them to focus fee budgets on high conviction strategies or alternative investments. We believe this approach could be more widely adopted by others, accelerating flows to ETFs and contributing to our estimated $2-3TN AUM increase over the next three to five years. Over time we see increasing usage by mutual funds themselves.

Traditional Asset Management will encroach on alternatives. Investors are increasingly willing to sacrifice liquidity for higher income and Asset Managers have an opportunity to leverage new approaches to gain a foothold in private markets. To do this, they will need to address a number of skills gaps particularly in sourcing assets in a supply constrained market.

Exhibit 4:

We expect traditional product lines to blur as active Asset Managers reposition their business models

2016 AUM distribution and expected changes to Asset Manager value propositions



1.Includes LDI and smart beta assets
Source: Oliver Wyman analysis

Operating model reform needed to defend profits

Cost reduction is now imperative. There is a danger that the industry underestimates the scale of the challenge ahead, as many banks did in 2009. Fee compression combined with the shift to passive represent a ~17% revenue drag for the industry as a whole out to 2019 – and it could be much tougher for the most impacted firms. To find the cost savings necessary to defend profit levels, Asset Managers must leave no stone unturned. All will target the low hanging fruit, but leveraging big data / artificial intelligence using shared utilities and / or outsourcing, as well as streamlining product portfolios is likely to distinguish winners.

Regulatory initiatives add to the need to overhaul operating models. Regulatory scrutiny continues to grow. We expect this to drive a 2ppt cost drag on the industry and more emphasis on capital, as outlined in our Blue Paper, *Learning to Live with Less Liquidity*, last year. Markets in Financial Instruments Directive 2 (MiFID 2), derivative margining, liquidity risk, conduct risk, and value-for-money will all require new operational capabilities and careful management. The level of readiness varies widely.

We expect more M&A as Asset Managers look for efficiencies but the most attractive deals will also bring together complementary capabilities. With 10-15% cost synergies typically on offer, M&A could buy valuable time - but does not come without risks. The best deals will have broader ambitions, including lowering operational complexity, attaining distinctive investment capabilities or new distribution access. Growing concentration in distribution and deep scale economies in solutions and ETFs mean size matters more than ever. Longer term, however, new technologies could erode some scale economies, helping smaller, more nimble firms.

Wholesale Banks

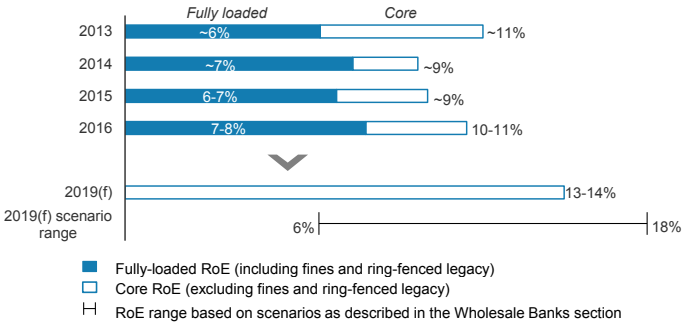
Policy shifts should radically improve the outlook for Wholesale Banks

Wholesale Banks can now see a clear path to above hurdle returns. A tempering of regulation, improving revenues, and new technology look set to drive wholesale bank returns up to 13-14% by 2019. This comes after seven years of structural declines in revenues, single-digit returns and waves of restructuring. Attention now is shifting towards capturing growth and improving operating models. Efficient deployment of capital, analytics, transaction execution, and client support will define the winners.

Exhibit 5:

Our base case is for the Wholesale Banking industry to reach above hurdle returns by 2019 after an extended period of low returns

Wholesale Banking activity RoE evolution, 2013-19(f), Core perimeter and fully loaded returns



Note: Ring-fenced legacy reduces RoE given higher capital consumption and negative profitability across non-core units
Source: Oliver Wyman analysis

The potential easing of capital requirements is a key swing factor. Our base case factors in ~$20BN of capital release, primarily in the US, worth ~1ppt of RoE. This assumes less intense implementation of supervisory stress tests, and tempering of liquidity and capital ratios, rather than a re-write of the regulatory framework. European banks also benefit, though less, as additional requirements (such as Basel 4 and Fundamental Review of Trading Book (FRTB)) come through in a less onerous form.

The revenue outlook has improved, but headwinds remain. Growing business confidence, rising rates, elevated volatility, and increased capital capacity are all strong tailwinds. However, we don't expect the headwinds of recent years to be entirely reversed. Changes in client behaviour and market structure are here to stay, and few banks will be re-entering shuttered business lines. Our base case is for a ~2% revenue CAGR over the next three years, worth ~1ppt of RoE.

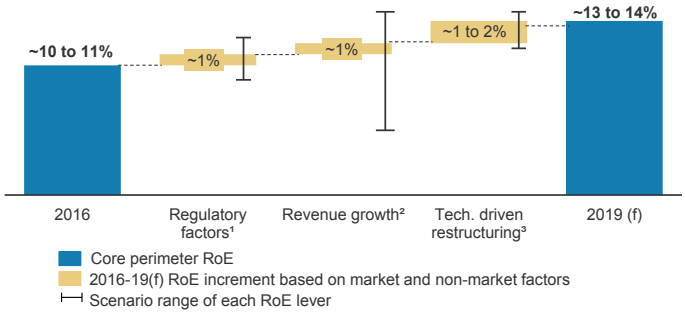
Regulatory fragmentation and protectionism present significant risks. Europe faces the most pressing issues, particularly for International banks with hubs in the UK. An adverse outcome for Brexit and the new EU Intermediate Holding Company (IHC) requirements could drive returns down in the European segment. Subscale players may choose to exit.

These concerns inform our two alternative bear scenarios. "Deflated Expectations" sees a frustrated policy agenda and a return to the revenue erosion of recent years. "Boom & Bust" sees strong growth through mid-2018 followed by an asset price collapse and bear market through 2019, a higher severity outcome but one we felt instructive to keep in mind. In both cases, returns drop below 10%, triggering further restructuring.

Our bull case "Dares to Dream". If the US administration's tax reform, fiscal stimulus, and deregulation agenda is achieved, we would expect much stronger revenue growth and more capital release, with revenue growth of ~7% CAGR and industry returns of ~17%.

Exhibit 6:

Regulatory easing, revenue growth and technology restructuring are the levers to drive up returns



Notes: excluding fines and ring-fenced legacy
1. Regulatory factors include reduced capital pressure, revenue gains from capital redeployment, and changes to regulatory and operating costs
2. Base, bull and bear cases revenue growth with associated operating costs and cost inflation.
3. Tech restructuring relates to cost savings from new technologies net of investment
Source: Oliver Wyman analysis

Technology transformation will gather pace

Implementation of new technologies could transform the cost base for Wholesale Banks. We estimate that banks can release 12-15% of total expenses over the next five years by deploying currently available technology. Though investments and other inflationary effects will offset much of this benefit; however, we still expect 1-2ppt of RoE benefit after reinvestment costs. Advances in robotics and artificial intelligence in particular have dramatically expanded the possibilities for automation of processes. The biggest savings will come from control functions, and also the front office.

But technology is also changing the way markets operate, opening the door for new competitors. Non-bank liquidity providers have already carved out a major role in foreign exchange (FX), cash equities and listed derivatives. They deploy best-in-class technology and data analytics to compete head on with major banks. We estimate $2-3BN of further revenues are potentially in play for these models as they expand their offering. Smaller banks may be forced to the sidelines, while larger banks will need to re-invest to remain competitive.

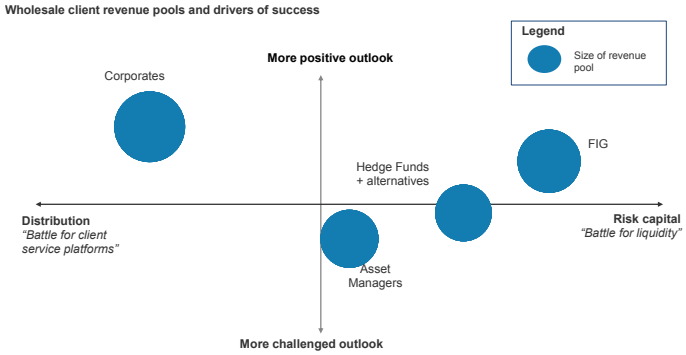
Transaction Banking is the next battleground. Transaction banking - today a ~$265BN revenue pool comprising provision of payments, cash management and trade finance – is attracting the attention of technology giants and potential disruptors. We expect more partnerships where banks leverage FinTech solutions to serve clients. Tempered regulation could even free up Wholesale Banks to make more strategic acquisitions to expand their capabilities. However, FinTechs without capital and unable to offer balance sheet will face constraints. Lending remains an important barrier to entry.

Corporate clients are growing in strategic importance

Structural shifts in the client base are redrawing the battle lines for Wholesale Banks. As capital pressures ease, the battle for market share will intensify. At the same time the client revenue base is shifting profoundly as the corporate client wallet grows while the institutional investor wallet shrinks. We estimate the shift to passive could knock $2-4BN off bank revenues from the Asset Manager wallet, for example.

Exhibit 7:

Corporate clients are growing in strategic importance – while Asset Managers are pressured



Note: Asset Managers category also includes Pension Funds; Corporates includes Corporates and Publics; FIG includes Banks, Central Banks and Insurers
Source: Oliver Wyman analysis

In Fixed Income a more heterogeneous supply side is emerging as banks adjust to these shifts. Revenues are growing as rising rates and expected higher volatility drive increased client activity. More focused models are emerging, some built around a regional corporate franchise, others around risk capital, and a final group around technology. The most pressured spot is flow market making where we see an increasingly strong case for smaller players to outsource this activity to scale players or technology-driven specialists.

Pressures from these structural shifts in the client base are particularly felt in equities, posing tough questions for mid-tier players. Our estimates suggest structural changes have knocked $10-15BN off the equities revenue pool, as the historical link to volume and value growth has broken down. Yet capacity release has been only marginal. Research unbundling in Europe under MiFID 2 will drive further consolidation and compression of cash commissions. The leaders enjoy strong economics, but mid-tier players will increasingly question the integrated equities complex, and we may see deeper restructuring if revenues disappoint again.

Some share may rebalance as restructured banks recommit. Over 6% of share has migrated away from the top five European banks over the last five years, primarily benefiting the large US banks. Restructured banks, non-banks and boutiques are likely to gain ground as they allocate resources to their chosen areas of focus.

Returns are likely to tell a different story as the effects of operating leverage and capital play through. Unlike in prior up-cycles, we expect the spread of returns across banks to remain wide. The varying potential for capital release is a big factor, and skewed to the US banks versus European banks. Operating leverage is another differentiating factor, with firms that invested over the past eight years in the best position to capture revenue growth and translate it into earnings.

Messages from Our Proprietary Survey

Key take-aways from our meetings with senior executives of Asset Managers with ~$15 trillion of combined assets under management.

Reflationary environment is seen as broadly positive to product demand dynamics.

- The accompanying pick-up in risk appetite and expectations of a better environment for alpha generation is expected to improve demand for active in general and equities in particular.
- Opportunities are also seen in unconstrained fixed income, flexible duration global macro and Money Market Funds.
- Appetite for private market assets is expected to continue unabated.

Fee pressure is intensifying, US and UK more advanced, Europe and Asia are expected to follow, retail is more vulnerable from here.

- To date, pressure has been more intense in the institutional area with many investors successfully demanding discounts on new mandates.
- Retail premium is expected to shrink given the push for transparency, and significant differentials in active/passive pricing.
- Strong performance and capacity constrained active products are more resilient to fee pressure, but not immune.
- Distribution consolidation is exacerbating fee pressure as distributors leverage their buying power via the threat of platform exclusion. Being a global partner with broad product waterfront is seen as a defence for Asset Managers.
- Fee capture is increasingly in focus in informing pricing decisions.
- Most Asset Managers currently see limited investor appetite for new fee structures, though they are open to different approaches on fees to better align with clients.

Fundamental re-shaping of the cost base now mission critical.

- Front to back efficiency is critical.
- Big data, artificial intelligence and digital distribution are seen as cost-saving options, but benefits will take time to come through.
- Front-office compensation is also considered a key lever, but one that needs to be handled carefully so as to prevent destruction of shareholder value.
- Managements are protective of content but are prepared to outsource an ever expanding part of the value chain

M&A is likely to pick up but focused on the "pressured pack in the middle".

- More scale-driven or platform M&A is anticipated given the top line challenges, but many of the executives we spoke with were equally focused on the downside risks of consolidation, with a view that these deals risk simply creating "larger melting ice cubes" unless accompanied by a strategic growth plan.
- Many fear that client/consultant anxiety would impact the top line post-deal, plus they see risks to culture.

Opportunity set seen as most compelling in concentrated active, solutions, risk factor/smart beta, low cost beta and private market.

- Clients want both active and passive - beta alone does not fulfill return requirements, so demand for active products remains strong.
- Managers have to decide where their competitive advantage lies - as a scale provider or as a specialist manufacturer.
- Management teams seem most excited about demand for ETFs (including as components for Wealth Managers/outsourced CIO service), high conviction/high active share, illiquid alternatives and multi-asset solutions.

Regulatory thrust on value-for-money, transparency viewed as sensible.

- More disclosure, transparency, and focus on hidden charges is seen as sensible.
- There are concerns on the concept of an all-in-one fee payment structure given uncertainty on component costs (e.g. trading).
- Most see incremental rather than significant change in capital intensity, though there is a difference in views between UK (more hawkish) and US.

We would like to thank the firms and individuals who took the time to meet with us.

Asset Managers

Growing pressure on earnings

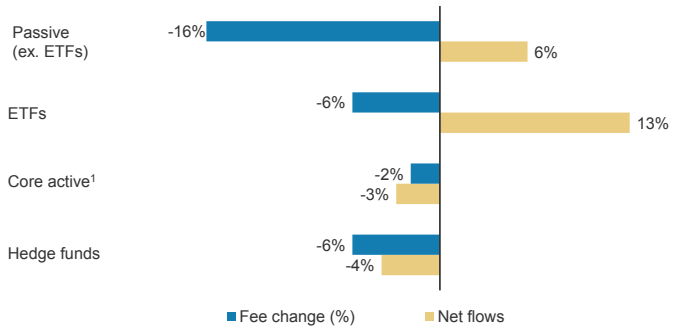
Structural fee pressure is set to intensify challenges for the Asset Management industry. The low returns environment, regulatory action and higher levels of transparency have increased price scrutiny. We believe that asset growth will fail to offset these headwinds even if we enter an environment of more dispersed returns that brings better opportunities for alpha creation.

Fee compression to date has been steepest at the ends of the barbell. Passive at one end and Hedge Funds at the other saw average fees fall ~16% and ~6%, respectively during 2016 whereas core active strategies suffered a ~2% squeeze. Recent difficulty in adding alpha in a QE-driven environment, regulatory pressures and a change in how investors consider value-for-money make us think that margin compression will not abate. Our base case revenue outlook is therefore calibrated to the pace of margin compression seen in 2016.

Exhibit 8:

Asset Manager fees are pressured across the board but most intensely at the ends of the barbell

2016 fee change and net flows by product, % change in fees, % AUM



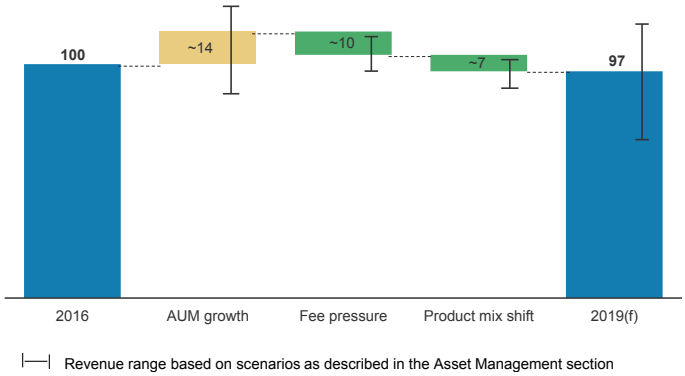
1. Core active includes traditional, actively managed funds and excludes Hedge Funds and alternatives
Source: Oliver Wyman analysis.

We forecast revenues to fall further over 2017-19. Industry revenues fell ~5% year on year in 2016 bringing to an end the post-crisis revenue growth cycle. AUM expansion was not sufficient to compensate for ~6% margin contraction. We expect this rate of top line pressure to continue as a result of fee compression in combination with a shift in the product mix and to result in a revenue drag of ~17% over the next three years. If this proves correct then our forecast asset growth of ~4% per annum will not be enough to prevent revenues declining further. Our expectation is that revenues will fall ~3% from current levels by 2019.

Exhibit 9:

We expect revenue to be lower in 2019 with AUM growth failing to compensate for margin compression

Base case indexed revenue outlook, 2016-19(f), 2016 indexed to 100



Source: Oliver Wyman analysis

Downside risks significantly outweigh the potential upside. Our base case is grounded in an improving economy with modest equity market appreciation and gradually rising rates. Our bull case sees more robust economic growth and an environment with more dispersed returns which will support AUM growth and provide an opportunity to create alpha, which in turn will reduce margin pressure. In such a scenario, revenues would be up 15-20% by 2019. However, we think the downside risks are higher and our two bear cases see revenues down ~30% by 2019. In one, policy stimulus fails to encourage economic growth resulting in markets pulling back from current levels; in the other, an initial period of growth gives way to an asset price collapse, possibly triggered by a major credit event. In both cases revenues would be expected to fall ~30%. In the former case sustained pressure on fee structures linked to low returns is the dominant factor; in the latter, a sharp drop in AUM is the key driver.

Exhibit 10:

There is substantial downside risk if economic growth fails to materialize

2019(f) outlook scenarios, % change vs. 2016

	Base	Bull	Bear "DE"	Bear "BB"
Description	• Economic environment steadily improves	• Accelerating global economic growth boosts confidence	• Failure of policy to stimulate economic growth	• Initial economic growth reversed by significant shock
	• No let up in margin pressure or product mix shift; compression continues at similar pace to 2016	• Environment supports AUM growth and creates more opportunity for alpha-generation	• Markets pull back from current levels	• Sharp drop in market valuations impacts AUM and adds to the momentum of shift towards passive
	• Revenues fall as AUM gains prove insufficient to offset fee declines	• Focus on fees and shifts to passive diminish	• Falling asset prices intensify fee pressure	• Margin pressure initially moderate as in Bull scenario but becoming intense post-crisis
AUM ($TN, % change)	$86TN +14%	$92TN +22%	$71TN -6%	$68TN -10%
Fee pressure product mix shift effects (% change)	-17%	-5%	-24%	-20%
Revenue (% change)	-3%	+17%	-30%	-30%

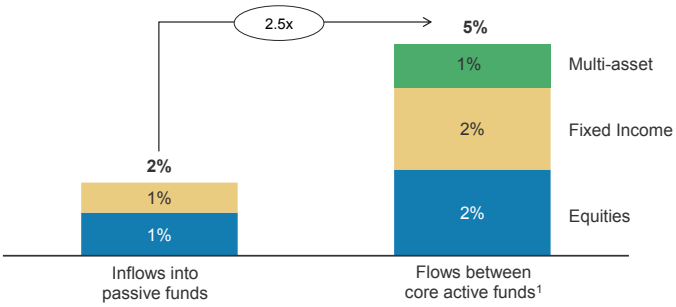
Note: Bear "DE"= Deflated Expectations scenario, Bear "BB"= Boom and Bust scenario
Source: Oliver Wyman analysis

The pressure on individual Asset Managers could be even more acute. Suggestions that the existence of the active industry as a whole is under threat are overstated, in our view. Actively managed assets (excluding HFs and alternatives) still account for roughly two-thirds of all AUM. While passive structures have continued to gain net asset flows, flows between active funds within the same asset class remained ~2.5 times greater than active to passive in 2016. This also implies revenue pressures were most intense for those active Asset Managers where the passive for active substitution opportunities are the greatest, particularly equities.

Exhibit 11:

The relative size of flows within core active highlights the significant value that remains for Asset Managers who differentiate themselves

Flows between funds, % industry AUM, 2016



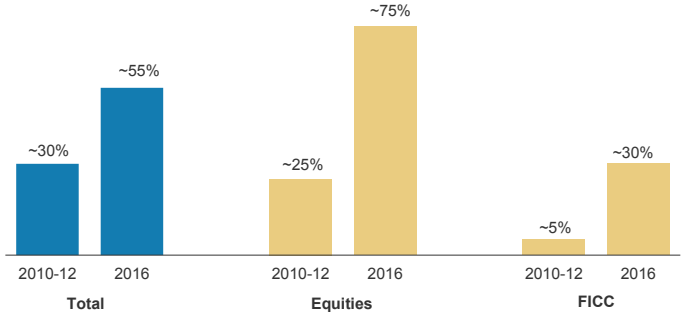
1. Relative flows between the funds of the same asset class based on the evolution of fund AUMs controlling for market effects
Source: Oliver Wyman analysis, Morningstar

Price seems to be growing in importance in driving active manager selection. Historically assets have been mainly attracted by performance rather than price but our analysis suggests that this relationship is breaking down, particularly for equity strategies. Over the past year, price has been the primary determinant of reallocations between active Asset Managers in over half of AUM shifts, compared to 30% from 2010-12.

Exhibit 12:

Across the active management industry price competitiveness is becoming increasingly important

Global active Mutual Fund flows where price was the primary determining factor, % of flows between funds, 2010-16



Note: Based on a comparison of average flows for groups of funds with similar performance and price characteristics

Source: Oliver Wyman analysis, Morningstar

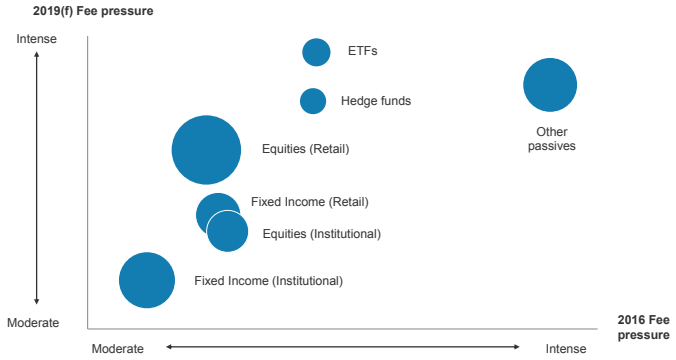
Institutional investors are extracting the biggest reductions but the next battleground will be in retail. Over recent years we have seen the level of discounts extracted by institutional investors double in many cases. On the retail side, mutual fund fees are significantly higher, attracting a ~50% premium over institutional fees. If segregated mandates are included in the comparison then the premium is closer to 100%. In part, this reflects structural differences in the business, especially the higher costs incurred to serve retail clients. But we expect growing regulatory focus and demands for greater transparency to have significant impact on retail pricing.

These factors put Asset and Wealth Managers into battle over their share of a shrinking total wallet. As yet, there are no clear winners. Wealth Managers are increasingly bundling flows to extract greater discounts and many have begun to create simpler product structures, built around a core set of ETFs, to reduce client fees. Asset Managers look set to pursue a range of strategies with direct digital distribution as one potentially attractive option for firms with sufficient scale to bear the significant costs.

Exhibit 13:

Pricing pressure is shifting to retail AUM but remains most intense at the ends of the barbell

Map of historical and forecast fee pressure by asset class and investor segment, Bubble size: 2016 AUM, 2016-19(f)



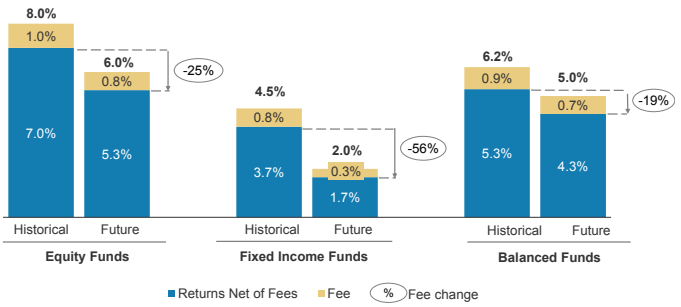
Source: Oliver Wyman analysis, Morningstar

Lower asset returns could have a profound impact on pricing. We are starting to see the notion of 'fee capture' limits gaining ground with investors as a way to think through fee levels. This could imply heavy margin pressures in an environment where returns are lower. Based on US active retail mutual fund returns over the past decade we estimate that fee capture has averaged ~15%. **Exhibit 14** shows what might happen to US retail mutual fund fees if future fund returns fall while fee capture rates remain constant. This logic would imply a ~25% reduction in fees earned by large/ midcap equities and declines of over 50% for fixed income funds in an extreme case. How-ever our base case assumes equities to be most pressured. We think the greater ease of passive replication and the larger price differen-tial between active and passive funds will heighten pressures in equity funds, while fixed income funds are likely to benefit form asset inflows as investors are attracted by rising yields.

Exhibit 14:

Pricing pressure could be more pronounced in a bear scenario if investors are not prepared to accept higher levels of fee capture

Bear case fee compression assuming constant fee capture rate on lower prospective asset returns, (US retail Mutual Funds)



Note: Historical data based on 10 years gross annualized returns and fees for 5th decile US active retail Mutual Funds; 'future' outlook reflects Morgan Stanley's base case for asset class returns

Source: Oliver Wyman analysis, Morgan Stanley Research, Morningstar

Operating model reform needed to defend profits

Cost reduction is now an imperative. Most Asset Managers will naturally focus on "low hanging fruit" such as strategically realigning compensation with performance or taking a more aggressive stance in vendor contract negotiations. They will also look to quickly identify pain points in existing processes and "implant" robots to address high frequency and fault-prone processes, particularly in the middle and back office. However, such measures are unlikely to be enough to offset the revenue headwinds, particularly for the most pressured firms, and our concern is that the industry underestimates the size of the change required, as many banks did back in 2009.

Rising regulatory costs will add to the challenge. The industry is facing a growing set of regulatory initiatives. Most immediately, the industry is recognizing it will have to run hard to meet requirements on MiFID 2 and derivatives margining. Liquidity concerns and the associated system and risk modeling requirements will also require investment to ensure compliance. We estimate a 2ppts cost drag on average, more for most mid-sized firms, particularly those with complicated legacy infrastructure.

Achieving regulatory readiness is harder than many thought

MiFID implementation concerns show a broader lack of regulatory readiness. With the deadline for compliance set for January 2018, MiFID 2 is a rapidly approaching deadline for Asset Managers operating in Europe and given the imminent deadlines it is now quickly rising up management agendas. The challenge is twofold: first, to adapt business models to accommodate new regulatory imperatives, such as best execution, and to minimize the financial impact of replacing services traditionally provided at zero-explicit cost, such as research; and secondly, to enact the required solutions with limited implementation or project management experience and, for many, scale challenges.

We still have the sense that many Asset Managers have not adequately prepared for upcoming regulatory changes. For example:

• **Margin rule:** Many Asset Managers failed to implement the required legal and operational changes ahead of the March 1st deadline to meet mandatory margin requirements for non-cleared derivatives. Even the most advanced firms found themselves having to apply an "all hands on deck" policy as the deadline approached.

• **Department of Labor (DOL) Fiduciary Standard:** Readiness, on average, is higher, although the fate of this new piece of regulation is unclear under the new administration and the bigger implementation burden lies with the distributors.

• **Conduct:** MiFID 2 regulation in Europe also requires Asset Managers to implement changes that reduce conflicts of interest (for example, treatment of research) and in this sense elements of what might be broadly referred to as "conduct" are being addressed by Asset Managers. ESMA published research on closet tracking, which has emboldened many European supervisory and consumer authorities to take action against poor "conduct". In the UK, where the principles of "conduct" have been more clearly defined than elsewhere, and have recently focused specifically on value-for-money, Asset Managers are still in relatively early stages of implementing "conduct frameworks" and demonstrating how they deliver value-for-money through governance and process.

Regulatory risks are not immediate but have not disappeared for ETFs. Current liquidity regulation and tax treatment typically favor ETFs. However, as the industry matures and migrates into new asset classes there are growing concerns in the regulatory community that issues may arise, which could trigger a further regulatory response and may reduce the current advantage enjoyed by ETFs.

Liquidity concerns remain a watch point for regulators. Our research over the past two years has shown little evidence that Asset Managers are a source of systemic risk. This is supported by evidence from the UK, where, despite isolated events, the referendum on EU membership saw broad-based resilience. Research on the impact of secondary market liquidity remains inconclusive as most recently shown by an IOSCO study. Nonetheless, SEC regulations on liquidity have been finalized and the FSB recently published its final policy recommendations which include proposals relating to liquidity.

Model validation is gaining in importance. While banks have been exposed to increased scrutiny for years, we have started to observe a shift in regulatory focus from banking to Asset Managers. An increase in regulations would have a significant impact as achieving regulatory compliance can be an onerous and time consuming process given the numerous models that are typically critical for investment and liquidity management.

As a consequence capital scrutiny will increase further. Our discussions with regulators show an increasing awareness of both prudential and conduct risks faced by the industry, for instance in the commitments made to clients regarding the liquidity profile of their investments. We see an increased focus on capital levels by regulators and expect large scale investors – particularly public pension funds – to take increased interest in the financial strength of Asset Managers.

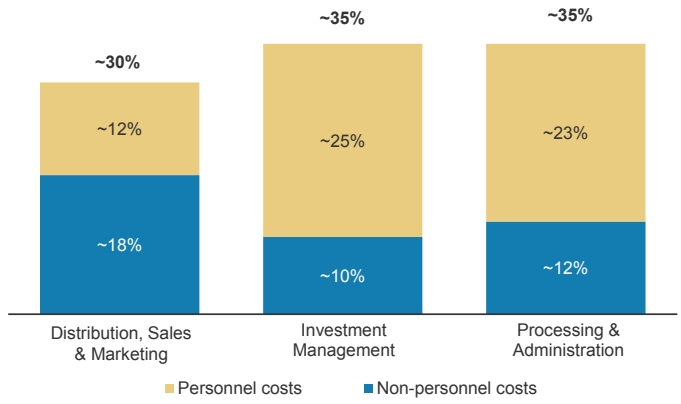
Regulatory work is also an opportunity for greater business insight. Similar to what we have seen in the banking space, the Comprehensive Capital Analysis and Review (CCAR) institutions have moved beyond regulatory compliance and now use the tools built (e.g. Pre-Provision Net Revenue modeling) to support business planning. We expect leading Asset Managers to see regulatory pressure as a chance to leverage these efforts in a business context.

A step-change is required in the use of technology to drive efficiencies. The industry has failed to keep pace with rapid technological advances that other industries have already adopted and which clients are coming to expect. Our research shows that Asset Managers need to increase technology budgets by an extra $20-25BN over the next 3-5 years to replace in-house legacy front- and back-office systems and, more importantly, compensate for historical underinvestment in technology. The alternative would be to significantly increase the level of outsourcing or better collaborate with emerging FinTech firms.

Exhibit 15:

Cost control is now an imperative and cost savings will have to be sought from across the organizational spectrum

Industry cost base, % total industry costs, 2016



Note: Non-personnel costs for Distribution, Sales & Marketing include third-party distribution expense
Source: Oliver Wyman analysis, s

Cost saving efforts will require radical measures and a "zero base" mentality. This means reviewing each function with the objective of releasing savings of 3-4% per year until 2019 - nearer 10% each year in our bear case scenario. Differences in business models will dictate where cuts will ultimately be found but there are a range of options for Asset Managers to explore:

- **Tiering and focusing distribution.** A balance will need to be struck to ensure savings do not impair asset retention and client acquisition. To support this effort, better management information will be required on client-level economics and the cost and value of their various client touch points and distribution channels.
- **Automating elements of research**. MiFID 2 will force banks to charge separately for research and data, which had been historically bundled into commissions. Asset Managers will need to decide how much to purchase in future and what capabilities to build in house. Big data and artificial intelligence techniques are already being used by some Asset Managers but there is scope for others to embrace new approaches that may offer improved performance as well as cost savings.
- **Broader outsourcing propositions.** Rising availability of viable options provides outsourcing opportunities far beyond the traditional remit of custody or back-office services. Custodians and other market infrastructure providers are significantly increasing their offering upstream into core portfolio management, distribution and data analytics. Traction so far has been limited but we expect this to gain further ground as custodians continue to invest in systems and functionality.

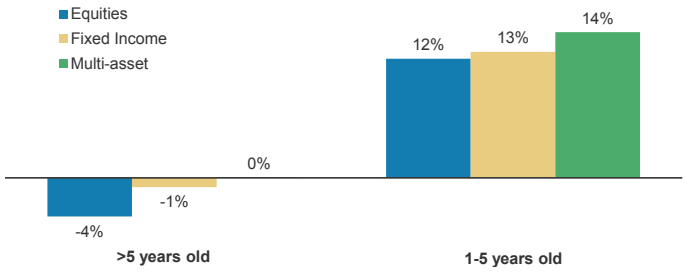
- **Consolidating the product offering.** Whilst younger funds have attracted inflows on average, funds older than 5 years have experienced net outflows. Our analysis also shows that nearly 40% of these older funds are subscale with less than $50MM in AUM. Other incentives also exist for Asset Managers to rationalize their product ranges, not least the fact that platforms are in the process of reducing the size of their product shelves. For some firms, more than 50% of the current product offering should be under the microscope. As they undergo this process, they will have to overcome a natural resistance to act, caused by the hope of a 'cyclical return to flavor'.
- **Re-evaluating trading activities.** Many Asset Managers have built up substantial trading operations in response to the more challenging liquidity environment. As banks move toward an agent-like relationship in more asset classes and are obligated to provide "best execution", the value proposition of the buy-side trader diminishes in liquid asset classes.

We expect more M&A as Asset Managers look for efficiencies - but most attractive deals will bring together complementary capabilities. M&A is up ~150% since 2012 in terms of the number of transactions. We expect transaction volumes to increase further as active Asset Managers battle to free up investment budget in the face of falling revenues. The 10-15% cost savings typically associated with scale-driven M&A could buy valuable time but are unlikely to have the transformational impact on businesses that many Asset Managers need. Furthermore, M&A may even have the reverse impact to the one intended if additional topline pressures from watch list inclusion prove hard to reverse, or the messy business of extracting synergies in the infrastructure functions distracts management from the more fundamental task of restructuring the client proposition. Some Asset Managers may have no choice but to do deals to drive scale and ensure survival. But for most, we believe that M&A has to be underpinned by a strategic rationale that delivers enhanced capabilities to the acquirer, for example in the areas of distribution, investment expertise or technology.

Exhibit 16:

Older funds account for a disproportionate share of outflows and will have to be targeted by Asset Managers rationalizing their product ranges

Average flows of global active funds by asset class and vintage, flows as a % of asset class AUM, 2012-16

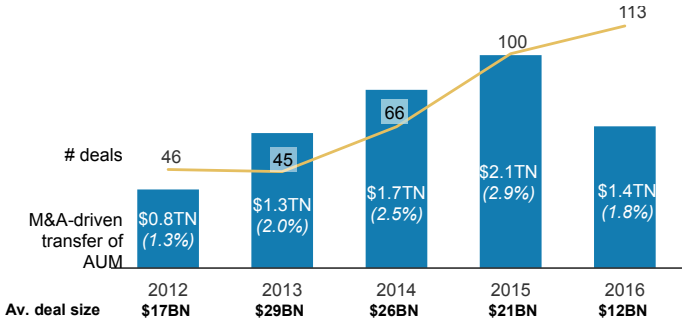


Source: Oliver Wyman analysis, Broadridge

Exhibit 17:

Deal volume has increased significantly in recent years as managers look to address their challenges

M&A-driven asset flows and deal volumes, (% industry AUM), 2012-16



Source: Oliver Wyman analysis, Morgan Stanley research

Blurring product lines

To meet the scale of the challenge, Asset Managers will need to more fundamentally adjust their core proposition, blurring traditional product lines. Managers would be mistaken to think that cost reductions alone will be sufficient to meet what we think will be a multi-year process of adjustment for the industry. Changes will also be required to the core portfolio management layer, which will result in the boundaries blurring between active and passive and between active and alternatives.

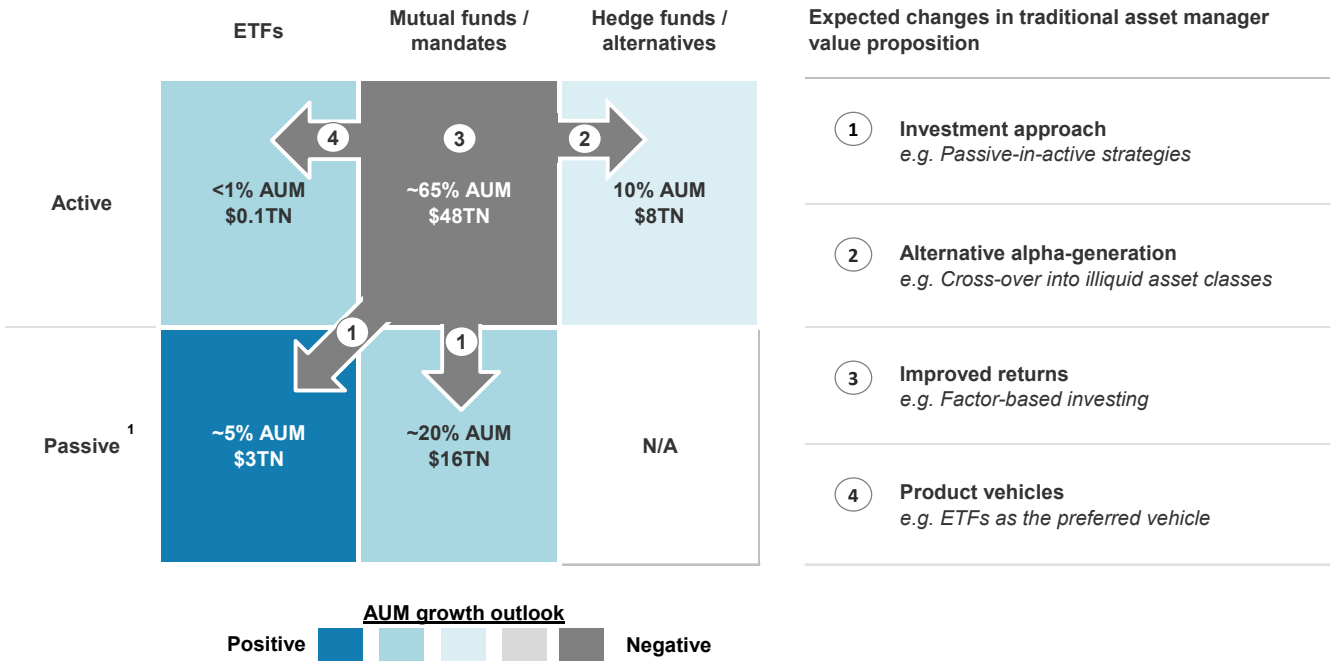
Whilst strategic direction will differ between firms, we see four main areas that Asset Managers will explore:

1. Active Asset Managers themselves may be the biggest growth driver for passive providers. We expect ETF growth to accelerate and AUM to grow by $2-3TN over the next three to five years. Asset allocators such as Outsourced Chief Investment Officers (OCIO) and Wealth Managers will account for a large proportion of this incremental demand as they increasingly use ETFs at near zero cost to source beta exposure, allowing them to focus their resources on high conviction managers or more complex alternative investments. However, looking beyond 2019, the emerging use of passive vehicles as an integral part of an active fund management strategy will be arguably the more significant dynamic. Currently, Mutual Funds have ~$0.5TN invested in ETFs, much of which is used for liquidity management. We estimate using ETFs rather than the traditional approach of holding individual stocks offers a cost advantage of 5-8 bps in large and mid-cap equities. As Asset Managers search for ways to deliver performance at lower costs, this may mean that mutual funds find themselves among the largest investors in ETFs.

Exhibit 18:

We expect traditional product lines to blur as active Asset Managers reposition their business models

2016 AUM distribution and expected changes to asset manager value propositions



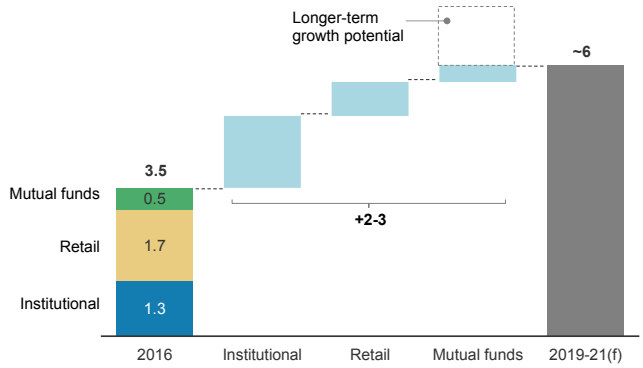
1.Includes LDI as well as smart beta assets

Source: Oliver Wyman analysis

Exhibit 19:

ETFs are likely to experience a significant AUM uplift as passive-in-active strategies become more commonplace

AUM outlook under high ETF growth scenario, $TN, 2016-21(f)



Source: Oliver Wyman analysis

2. Traditional Asset Management will increasingly encroach into the alternatives space. We expect the drive for alpha to push active Asset Managers to move further into private markets. Investors are increasingly willing to sacrifice liquidity for stable income and Asset Managers have an opportunity to leverage new approaches to gain a foothold in the sector.

The private debt arena is particularly open to disruption but to date only ~$500BN is managed in private debt funds. Managers will need to address a major skills gap to effectively source assets. Leveraging new technologies or partnering is one possible solution; alternatively, we believe that acquiring a P2P platform would provide sourcing and risk modeling technology, processes and, importantly, a client base with accompanying credit exposure.

Not all Asset Managers will look to entirely new pastures for an alternative means to generate alpha. We expect some firms to explore ways of delivering higher returns from their traditional investment universe by adopting new investment approaches. Taking a lead from activist investors and private equity firms, one option is for them to build a concentrated portfolio invested in companies in which they take a hands-on operational role with the aim of improving shareholder returns. Fund performance, therefore, would still be generated through traditional selection decisions but could also be enhanced by an additional element of "operational alpha".

Exhibit 20:

With investor demand high and attractive revenue pools available, we expect traditional Asset Managers to move further into private markets

Asset Manager private debt capability assessment

	Deal sourcing / access to borrower	Due diligence / risk assessment	Loan servicing	Key capability gaps for traditional asset managers (in addition to investment expertise)
Direct lending	○	◔	◔	• Access to SMEs or individual borrowers • Data on default rates; limited tools to assess creditworthiness of SMEs or individuals
Real estate debt	◔	◑	◑	• Access to networks to source deals • External support available for due diligence and loan servicing
Infrastructure debt	◔	◑	◔	• Access to attractive (and scarce) deals • Ability to service loans over long investment horizons
Asset-backed loans	◑	◔	◔	• Ability to assess underlying risks and enhance / maintain value of loans • Banks looking to offload legacy loan portfolios - ability to price correctly is key

Key: ○ Limited existing capabilities / large capability gap ● Sufficient existing capabilities / small capability gap

Source: Oliver Wyman analysis

3. Risk factor investing will gain prominence in core active management. Risk factor investing has gained significant momentum over recent years as investors have looked for ways to enhance their portfolio returns in a low yield environment. For many, risk factor investing is synonymous with "smart beta" which has seen strong investor interest and an accompanying explosion of Asset Managers marketing smart beta funds as a source of enhanced equity returns for more passive-like fees.

However, the concept of risk factor-based investing is not restricted to equities and in fact transcends asset class boundaries. We have begun to see some of the more sophisticated institutional investors, including many of the leading pension funds and sovereign wealth funds, cast aside the traditional "strategic asset allocation" process in favor of "strategic risk factor allocation". As risk factor modeling continues to improve and investors become more accepting of the principles, we expect to see a much larger share of portfolios being managed this way. It should also facilitate articulation of a value-for-money framework for investors.

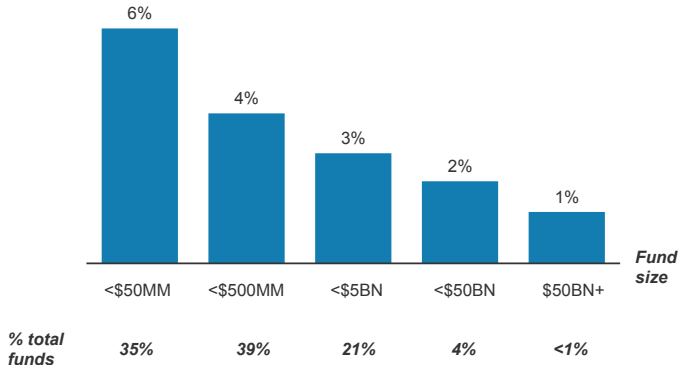
4. Active Asset Managers will make more use of ETF wrappers. Most regulators require daily disclosure of ETF holdings which deters many active Asset Managers from using them as a fund wrapper. Some Asset Managers have launched active ETFs in spite of this but currently these funds account for less than 1% of industry AUM. However, as a fund structure, ETFs offer advantages over traditional mutual fund vehicles – trading, cash management and servicing costs tend to be lower in ETFs, not to mention the tax advantages they bring for a variety of investors. Regulators are currently being lobbied to allow 'undisclosed' ETFs and should they change their stance, we expect even more active Asset Managers to launch new active ETF strategies or migrate portions of existing asset bases into ETF wrappers.

These product trends will drive further consolidation in passive, ETFs and solutions. ETF providers are the biggest beneficiaries of the trend towards passive and scale effects are marked in this business unless group-wide capabilities in technology, structuring or distribution can be leveraged. The five largest ETF providers hold ~75% of AUM compared to ~20% for the five largest active Asset Managers. Operational efficiencies mean that the largest funds enjoy a profitability rate of as much as 90% on every extra dollar of AUM, creating a winner-takes-all environment. Smaller funds also come with higher tracking error although in some cases this can be explained by smaller funds investing in 'nichier' indices. Nonetheless, we expect investors to become more focused on these effects, driving even more flows towards the larger funds. Scale factors are also likely to be pronounced in solutions where the ability to offer sufficient breadth and platform capabilities in house will lead to a more cost effective proposition. Indeed, while facing increasing pressure, Distribution looks set to remain a source of competitive advantage: platforms are increasingly consolidating, direct distribution remains costly and strategic partnerships are difficult to orchestrate.

Exhibit 21:

Most passive ETFs struggle with high tracking errors which undermine their passive tracking credentials

Average tracking error for passive ETFs by fund size· %, 2016



Note: Excludes active, inverse and leveraged ETFs

Source: Oliver Wyman analysis

Otherwise we expect technology to erode scale advantages. The role of scale more broadly is becoming less obvious. Already today the link between size and efficiency is debatable. Looking ahead new technologies and the emergence of more outsourced or vended cloud-based solutions models are likely to further erode any scale advantages in the operational layers. Winners are more likely to be those that embrace change in the core proposition, driving a clearer distinction between lower cost and higher value activities – and delivering returns congruent with this.

Wholesale Banks

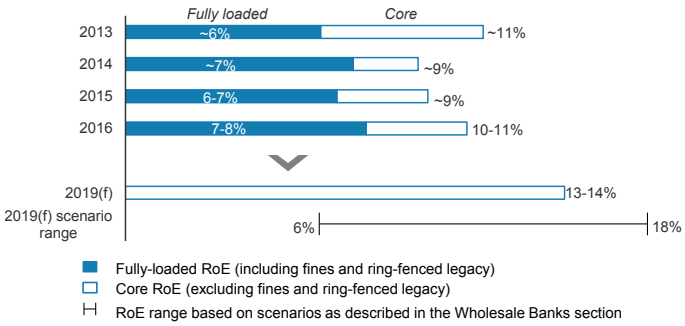
1. Policy shifts driving RoE uplift

Policy shifts have radically altered the outlook for Wholesale Banks. A strong economic outlook and a new focus on less restrictive financial regulation looks set to create a more attractive environment for Wholesale Banks. The last 7 years have been characterized by a steady decline in industry revenues amid a host of new regulations, waves of business line restructuring and cost cutting. RoEs on the core business have languished in the 9-11% range; fully loaded returns factoring in non-core units and fines were <8%. Now the potential easing of capital constraints, revenue growth, and further gains from technology, look set to drive RoEs up to the mid-teens by 2019. The range of potential outcomes is wide, however, and we model a 6-18% a bull-bear range.

Exhibit 22:

Our base case is for the industry to reach above-hurdle returns by 2019 after an extended period of low returns

Wholesale Banking activity RoE evolution, 2013-19(f), Core perimeter and fully loaded returns



Note: Ring-fenced legacy reduces RoE given higher capital consumption and negative profitability across non-core units
Source: Oliver Wyman analysis

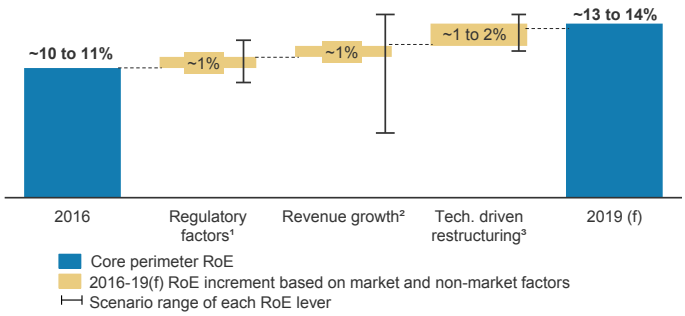
Operating leverage is the new mantra and will define the winners in 2017-18. Attention is now shifting towards capturing revenue growth and translating this growth to earnings. All banks have spent the past 3-5 years reshaping and restructuring their businesses, exiting where they can no longer compete and optimizing costs and financial resources where they can. But the work for many banks is not complete. Those that still have heavy lifting to do will be at a significant disadvantage in a growth cycle, starved of resources when they need them most. Leaders will look to press their advantage, investing further in technology to build barriers to entry and shifting available resources to growth engines.

Our base case forecasts Wholesale Banks returns climbing to 13-14% by 2019. Returns in 2016 were 10-11% within the core business perimeter, as cost-cutting initiatives delivered a ~6% reduction in expenses across the industry, offsetting a ~1% decline in revenues. The gap between core and fully loaded returns remained stable as the wind-down of non-core units offset fines, but we expect this gap to fall as the wind-down accelerates and fines begin to taper off. Our "Sustained Recovery" base case forecast for 2019 assumes modest regulatory relief easing capital pressure, driving up RoE by ~1ppt and allowing banks to redeploy some of their existing capital buffers to growth. Revenue growth of ~2% per annum driven by economic growth and elevated volatilities will drive another ~1ppt gain. However, technology transformation is the biggest lever for returns growth, potentially worth $15-20BN in cost saves and ~2ppt of RoE.

Exhibit 23:

Regulatory easing, revenue growth and technology restructuring are the levers to drive up returns

Wholesale Banking activity base case returns (RoE) outlook for 2019(f)



Notes: Core perimeter, 2019 (f), excluding fines and ring-fenced legacy

1. Regulatory factors include reduced capital pressure, revenue gains from capital redeployment, and changes to regulatory and operating costs

2. Base, bull and bear cases revenue growth with associated operating costs and cost inflation.

3. Tech restructuring relates to cost savings from new technologies net of investment

Source: Oliver Wyman analysis

Our bull-bear RoE spread is ~12ppt, reflecting heightened uncertainty around the policy environment. We have modeled three scenarios, based on the wide range of potential outcomes in the policy environment and banking regulation. But we see more upside than downside risk.

- In our "Dare to Dream" bull case, larger fiscal stimulus and corporate tax reform as well as realization of a broad deregulation agenda in the US combine with an improved outlook in Europe and growth in Asia. There is little further regulatory balkanization. Revenues grow ~7% per annum, with returns reaching 17-19% across the industry by 2019.
- In our "Deflated Expectations" bear case, economic and trade policies fail to produce significant growth, while political processes stall, limiting regulatory relief. Client activity reverts to the stop-start pattern of 2012 - mid 2016 and revenues fall ~2% per annum. Returns remain steady at or just below the cost of capital. Several banks are forced to further restructure, some exiting major business lines.
- In our "Boom & Bust" bear case, economic stimulus and aggressive regulatory relief drive growth in line with the bull case through mid-2018. However, confidence in asset prices unravels as protectionist policies fail to deliver growth, and interest rates rise in response to inflation. Regulatory balkanization becomes more pronounced. A crisis unfolds through 2019 and revenues fall to ~$170BN net of credit losses. Returns drop well below the cost of capital.

Exhibit 24:

Given the uncertainties, the range of outcomes across our scenarios is ~12 ppt in RoE by 2019

Base, bearish and bullish scenarios, 2017–19(f)

	"Sustained Recovery"	"Dare to Dream"	"Deflated Expectations"	"Boom & Bust"
Economy and markets	• Sustained uptick in economic growth, driven by the US • Equities markets rise moderately; interest rates rise, yield curves steepen, currencies move in response	• Accelerating global economic growth driven by expansionary policies • Strong bull market in equities and other risk assets; interest rates rise, yield curve steepens, volatility climbs	• Growth disappoints; US rate rising is put on hold / ECB QE continues • Equity markets take back recent gains but avoid collapse; volatility remains muted	• Strong initial growth fades as new policies fail to deliver • Interest rates rise in response to inflation but asset-price confidence falls away • Isolated but significant shock triggers more widespread crisis
Policy and regulation	• Stimulus activities in the US boost growth; Brexit is manageable • Intensity of supervision in US eases, global rulemaking stalls with limited additional pressure on bank capital	• Strong fiscal stimulus in the US; Europe stabilizes; no real Brexit disruption • Substantial US regulatory easing with few new EU regulatory hurdles	• Tax and stimulus initiatives in US fail to materialize, with disruption from Brexit and EU elections • Limited US regulatory rollback, with Basel 4 going ahead as originally stated	• US stimulus initially exacerbates asset bubbles • Regulatory balkanization becomes more pronounced
2019 revenue	~$238 BN	~$270 BN	~$210 BN	~$172 BN
2016 to 19(f) CAGR	+2%	+7%	-2%	-8%
2019 RoE	13 - 14%	17 - 19%	8 - 10%	5 - 7%

Source: Oliver Wyman analysis

A key swing factor is the potential for easing of capital requirements. In our base case, we have factored in $20BN of capital release from banks' Wholesale Banking divisions over the coming 3 years. Capital relief would occur as regulators in the US take a less discretionary and more quantitative approach to applying buffers and surcharges. This could allow buffers in their Investment Banks (IBs) to fall by around one-third from today's levels, which we estimate would provide the industry with a ~1ppt RoE uplift, up to ~2ppt for US banks depending on bank by bank dynamics. European banks are unlikely to see significant capital relief, but there is a growing sense that additional requirements (such as Basel 4 and FRTB) may come through in a less onerous form.

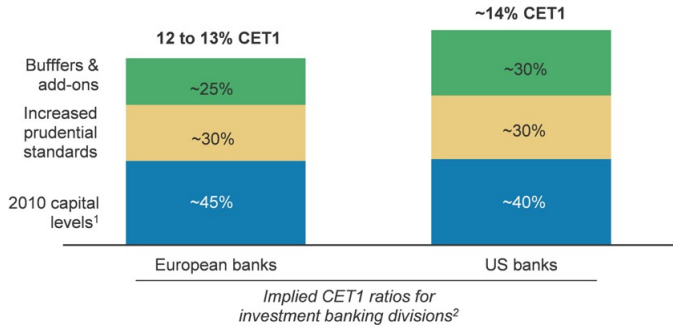
This is in a context where capital levels for Wholesale Banks have more than doubled over the last 6 years. Approximately half of this increase was due to the move towards Basel 3 prudential standards, with the rest from additional buffers. For US banks we estimate these buffers represent ~30% of their Wholesale Banking capital, and are primarily driven by CCAR capital stress testing, resolution planning, and G-SIB capital surcharges. For European banks, buffers are ~25% of Wholesale Banking capital (varying more widely across institutions), driven more by local entity constraints (including in the US) and expectations that the Basel 4 process will drive up capital requirements.

Capital release is anticipated – but won't be straightforward. A friendlier regulatory climate should allow banks to release capital and liquidity. But banks face multiple constraints; they hold financial resources to meet multiple requirements, so lowering the bar on one standard may not release any capital or liquidity. In addition, several US policymakers are advocating for a higher leverage ratio (the ratio of capital to total assets) as an "off-ramp" from a more complex set of regulatory requirements. However, the net effect of accepting the higher leverage ratio would be an increase in capital for all major financial institutions. For these reasons, our estimates of potential release are at the modest end of the spectrum in our base case.

Exhibit 25:

US banks have ~1-2ppt higher implied CET1 ratios than European banks given the rise in buffers and add-ons under the current US system

Implicit capital ratios in Wholesale Banking, 2016



1 Based on implied capital ratios of the industry using 2010 balance sheet and risk calculated with today's prudential standards

2.Based on 10% cost of capital. Figures include offsetting management actions to mitigate impacts e.g. model improvements. US banks CET1 ratio based on OW estimate of implied capital ratios held against CIB businesses

Source: Oliver Wyman analysis

The direction of travel on regulation looks positive but the path is uncertain.

US regulators have been the driving force behind global regulation of the banking industry since the crisis. The new administration is clearly following a different course, one that is likely to provide relief to US banks and remove support for major global regulations like the Basel 4 capital and liquidity standards. However, the path is far from clear – all global banks are now governed by a complex network of policymakers with competing objectives and an equally complex network of regulations that produce multiple binding constraints.

Expect regulatory easing rather than full-blown rollback in the US. The new US administration has signaled its intent to overhaul Dodd-Frank and reduce the burden on US financial institutions. But the administration will face significant political opposition and a full-blown rollback is unlikely. We have calibrated our base case around reduced intensity of supervision, as the senior leaders of US regulatory agencies are replaced. US regulators have broad discretion over the interpretation and enforcement of new legislation and existing regulations, so the quantum of relief may be significant. We expect many of the following rules and regulatory programs to be in play.

1. The Volcker Rule restrictions on proprietary trading
2. The Department of Labor (DOL) fiduciary standard for financial advice
3. The qualitative standards (and associated capital buffers) for CCAR stress tests
4. The threshold for designation of Systemically Important Financial Institutions (SIFIs)

For further detail on the potential outcomes and implications of the new administration's financial policies see the recent Oliver Wyman paper on this topic:

http://www.oliverwyman.com/our-expertise/insights/2017/jan/implications-of-the-trump-administration.html

Capital release could add some capacity back into the industry, but will drive only limited revenue benefits. To understand the potential for capital release to drive revenue growth, we have reviewed the drivers of revenue decline over the last 10 years.

- Businesses that banks deleveraged without exiting altogether look like the areas with the most potential for partial recovery if capital constraints ease. We estimate cuts in these areas to have accounted for ~$11BN of revenue "loss" over recent years. Based on this analysis, parts of Securitization, Rates, and Credit trading would be the largest beneficiaries.
- In activities that banks have exited altogether some selective re-entry is possible, but we think this is likely to be marginal. Many banks (and their clients) have deep scars in areas such as Correlation Trading and highly Structured Credit Derivatives (e.g. CDO2). Some other areas, such as commodities, would be operationally challenging to build back into. Reputational concerns on some products would also factor heavily. We estimate cuts in these areas to have accounted for ~$24BN in revenue loss.
- In other areas revenue declines reflect market structure changes, such as the increase in clearing and trade reporting requirements and the growth in volume traded on electronic execution venues. In these products it is margins, not volumes, that have been lost. This repricing is due to greater electronification and more price transparency, which we do not expect to be reversed.

Exhibit 26:

S&T revenues are ~$45BN lower compared to pre-crisis levels, most of which has been driven by increased prudential standards and could be at least partially rebuilt

Evolution of Wholesale Banking S&T revenues, pre-crisis to 2016, by asset class and driver of change

Revenue ($BN)	Definitions	Listed products	Flow fixed income	Secured funding	Structured products[1]	Structured Derivatives[2]	Commodities	**Total**
Historical	• 2006-11 average, excluding 2008-9	~$30BN	~$70BN	~$30BN	~$45BN	~$20BN	~$10BN	~$205BN
(-) Reduced RWA/ balance sheet	• Tightening balance sheet in core activities		~$4BN	~$1BN	~$5BN	~$2BN		~$11BN
(-) Individual business exits	• Business lines wholly shut down	~$2BN	~$6BN		~$9 to 12BN	~$3BN	~$2BN	~$24BN
(-) Client activity	• Market conditions • Trading styles	~$2BN	~$2BN		~$1BN	~$1BN		~$5BN
(-) Market structure changes	• Transparency, technology • Restrictions on activity	$2BN	~$3BN			~$1BN	~ $1BN	~$5BN
2016		~$24BN	~$55BN	~$29BN	~$29BN	~$13BN	~$7BN	~$160BN

1.Structured products includes structured credit, securitization, and real estate financing and trading
2.Structured derivatives includes equity derivatives, structured rates and FX hybrids
Note: Order of rows represents the likelihood of revenues returning over coming years (top rows most likely to return)
Source: Oliver Wyman analysis

Growing nationalism presents major risks to the outlook. Less international cooperation and alignment, combined with a greater focus on local recovery and resolvability, could drive up the cost of operating across borders. Cross-region activity represents 20-30% of industry revenues for the Wholesale Banks. There is a risk that this activity becomes harder and more costly to conduct, eroding the value of global networks and forcing banks to splinter key hubbed activities. The direct impact on bank revenue pools is less clear. In cross-border M&A for instance there are risks that major transnational deals are harder to complete, but equally there could be opportunities for the banks in helping clients restructure their activities in the face of a changed policy context. More broadly, the risk is that new trade barriers emerge and have a damaging effect on economic growth. These factors are key concerns informing our two bear case scenarios.

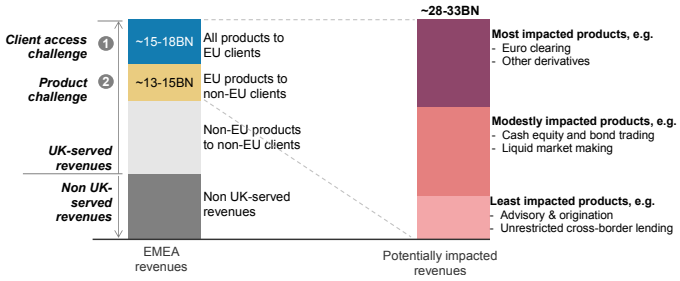
The most pressing challenge is in Europe where we could see a material worsening of the economics post Brexit. On one level, the scale of the impact is often overplayed. Much of the Wholesale Banking activity in the UK today is with other financial institutions – notably Asset Managers and Hedge Funds – and they have not indicated an intention to move from the UK. The immediate focus for banks therefore is on the businesses that serve EU (in this report meaning EU ex-UK) clients cross-border from the UK, which are likely to require a level of new onshore distribution capability. There is also a risk that some EU product traded in the UK is forced onshore. Together these represent 35-40% of EMEA Wholesale Banks revenues. The most impacted activities, notably lending and derivatives by banks that do not already have a material EU entity, make up around half of this fee pool (or 6-8% of global industry revenues). This sets an outer band for the likely impact of Brexit on the Wholesale Banks business and we expect bank management teams to take action to minimize the scope of operations moved out of London and further reduce the impact.

However, returns for the European business could still face major challenges. The access model emerging out of the Brexit negotiations is a key unknown, but the bigger swing factor could be the EU supervisory framework and in particular the approach taken to the newly proposed Intermediate Holding Company (IHC) structure. We estimate that returns on UK-based EU activity for the most impacted international banks could fall by up to 5ppt, equivalent to 0.5-1ppt on global Wholesale Banking RoE if delivery models undergo significant upheaval.

Exhibit 27:

The UK-served wholesale banking revenue pool will be impacted by product and/or market access challenges, though it will vary by bank, client and product

EMEA Wholesale Banking revenues and potential challenges, $BN, 2016

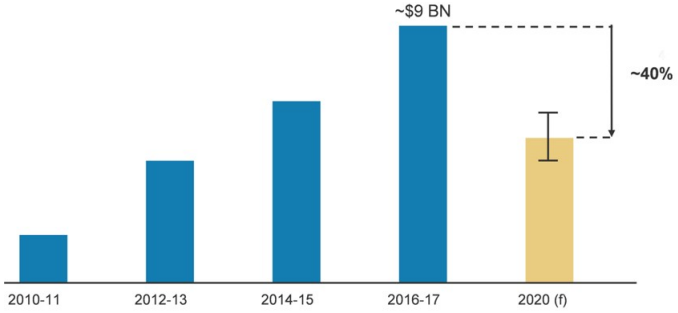


Source: Oliver Wyman analysis

Exhibit 28:

A wind down in the intensity of new regulations could release significant costs from the industry after total spending peaks in 2017

Wholesale Banking industry regulatory spend evolution, 2010-20(f)



Source: Oliver Wyman analysis

The cost impact of regulatory on banks will be asymmetric. The run-off of regulatory change costs should benefit most banks. We estimate these costs have peaked at ~$9BN in 2016-17 and should be set to come down significantly over the next 2-3 years. But some banks have done a much better job than others in coordinating these huge investments in risk, technology and business processes. As revenues return they will benefit from more robust platforms and more scalable processes.

Easing regulatory capital conditions are likely to benefit the US banks most, due to the size of the buffers at stake. However US banks are more threatened than their European counterparts by Brexit and the prospect of a more onerous local entity supervisory framework in the EU. The idiosyncrasies of booking models and banks' ability to adapt and evolve to these will be increasingly important.

Brexit

Asset Managers face disruption, but we expect only limited operational upheaval. Distribution of funds to EU clients could be restricted, but this is a relatively small part of the value chain outside of UCITS funds, and many funds are not domiciled in the UK currently anyway. Crucial for Asset Managers will be the ability to continue to delegate portfolio management to the location of their choice. We do not expect to see large movements out of the UK. However, in a more severe outcome some of the £1.2TN[1] of AUM currently managed in the UK on behalf of EU clients could be at risk.

Wholesale banks face bigger challenges. There are two potentially impacted areas:

1. **Activity conducted in London serving clients in the EU.** This represents $15-18BN of revenues today that are likely to be significantly disrupted. Banks will require some level of onshore distribution within the EU to continue this activity. The biggest challenges will be in derivatives and Corporate Banking products, which are likely to also require some level of onshore booking
2. **EU product traded in London.** This represents $13-15BN of revenues today that could be disrupted in some areas. Policymakers may seek to bring these activities onshore, but the mechanism to enforce this is not yet clear. For instance restrictions around Euro swap clearing could create strong incentives for banks to locate swap trading desks within the EU.

Building up the required capabilities will be a major initiative for those banks that do not already have trading entities within the EU. Management teams will look to maximise and preserve optionality and minimise disruption. But tight timelines will impel them to take decisions prior to receiving clarity over the outcome of Brexit negotiations.

The severity of the impact on the economics depends on three key interrelated swing factors, which in aggregate could create up to 5ppt drag on the UK-based EU activity of the most impacted international banks. This is equivalent to 0.5-1ppt drag on global Wholesale Banking RoE for those banks.

1. **The access model for serving EU domiciled clients from the UK (and vice versa).** Initial hopes for "passporting" have faded, and there are concerns over the coverage and stability of the current equivalence provisions. A favorable outcome here would minimise change required, limiting the costs. This would likely rest on enhanced equivalence agreements between jurisdictions.
2. **Booking models.** Of specific concern for international banks is regulatory treatment of back-to-back booking models and inter-affiliate exposures. A back-to-back set-up would allow banks to maintain their core trading infrastructure and risk management in London, with distribution only in the EU. There is a risk that regulators push back on this model, pushing the banks towards a more onshore model that would duplicate infrastructure and likely create trapped capital and funding.
3. **The supervisory framework that comes with new EU intermediate parent holding company rules.** In the US, the enforcement of the IHC regime for Foreign Banking Organizations (FBOs) brought heavy implementation costs and drove up capital and liquidity requirements. We estimate this cost ~3ppts of RoE on the US business of major FBOs. However, these heavy costs were driven in large part by the nature of the supervisory framework in the US, in particular CCAR stress-testing and Recovery and Resolution.

Note: 1. The Investment Association 'Asset management survey 2015-16'; £1.2TN out of £5.7TN AUM total assets under management by IA members

Banks: 2. Technology – New driver of advantage?

New technologies are opening up massive savings potential, but also shifting the basis of competition. We estimate a potential $15-20BN of cost release is possible across the industry, albeit we expect that reinvestment and other inflationary impacts will offset some of this benefit. But technology is also a strategic threat, lowering the barriers to entry and opening up the market to new competition. We estimate $2-3BN could leave the traditional Wholesale Banks revenue pools, as margins are compressed and revenues migrate to non-bank players.

We highlight four key battlegrounds: (1) enhancing and replacing human processes, (2) capturing customer value, (3) tackling core legacy infrastructure, and (4) enhancing the employee value proposition.

Battleground 1: Enhancing and replacing human processes

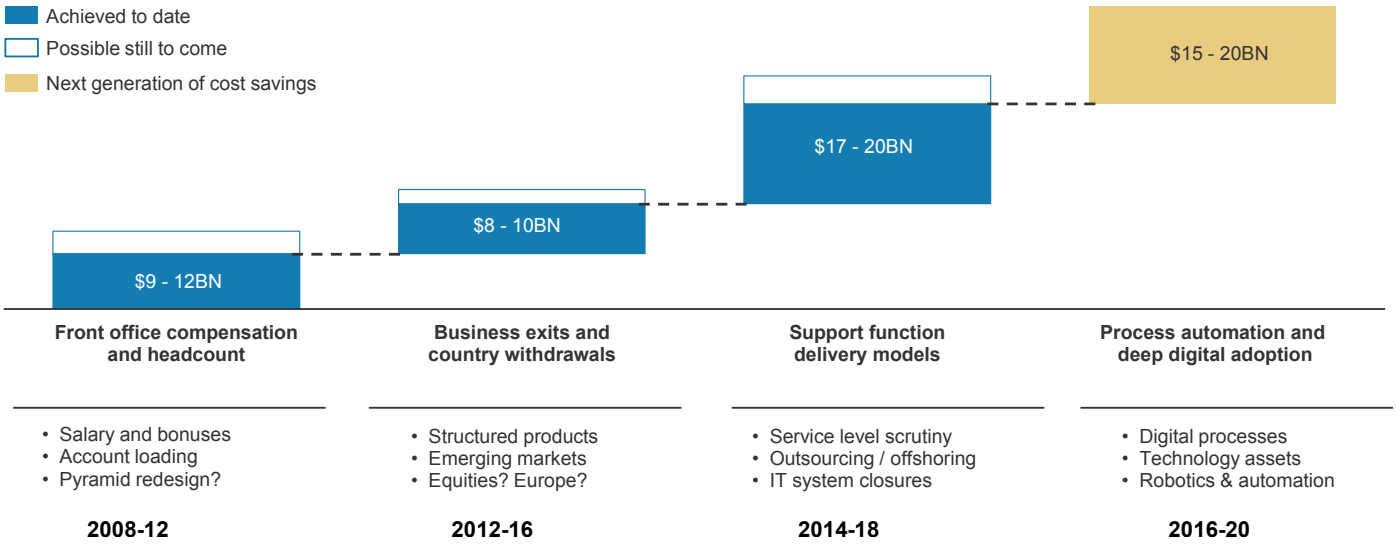
Some of the most exciting opportunities center on new technologies in data science, AI and robotics to replace and/or enhance human decision processes. Advances in programming power are opening up new possibilities, for instance the ability to manipulate large and complex data sets accessed from a wide set of sources, including unstructured data and natural language sources. And Robotic Process Automation (RPA) promises to replace manual repetitive processing tasks, although experience to date has been mixed. We see these innovations as presenting both a cost and productivity opportunity that could be worth $15-20BN to the wholesale banking industry in cost savings over the next 5 years. After taking investment costs and cost inflation into account, we are targeting industry costs down 0-5% to 2019. FinTech and other third party firms will be important contributors – but we think mainly as partners and collaborators with the banks rather than competitors.

These technologies could have a radical impact on the control functions of risk, finance and compliance. Many of the activities in these areas involve running routine processes, with pre-set decision criteria that could potentially be codified and automated. Yet in many cases these tasks are carried out by highly qualified – and costly –

Exhibit 29:

The next generation of cost savings will be built around process automation and deep digital adoption across banks

Phases of Wholesale Banking cost reduction



Source: Oliver Wyman analysis

individuals. While much has been done by the banks already to control costs and offshore headcount, the heavy regulatory change agenda since the financial crisis has driven the ratio of control function costs to front office headcount up by 50%, we estimate. A strong case will need to be made to supervisors that fewer control heads harnessing technology solutions may be a more effective model.

Exhibit 30:

The majority of control function headcount in Wholesale Banks Divisions is employed in core repetitive processes

Control function headcount mapped to families of processes across Wholesale Banking

Process type	Example	Control function headcount
Repetitive	• Financial report generation • Management accounting and information • A/P processing • Data and database management • KPI, KCI and KRI production • Risk measurement and reporting • Compliance training	**~55%**
Analytical	• Trade and communications surveillance • Risk identification, rating and limit setting • Reconciliation of risk exposures between trading and risk management systems	**~25%**
Advisory / Complex	• Case reviews of compliance breaches • Situation interpretation and business forecasting	**~20%**

1.Control function includes Finance, Risk and Compliance departments

(KPI = Key Performance Indicator; KCI = Key Control Indicator; KRI = Key Risk Indicator; A/P = Accounts Payable)

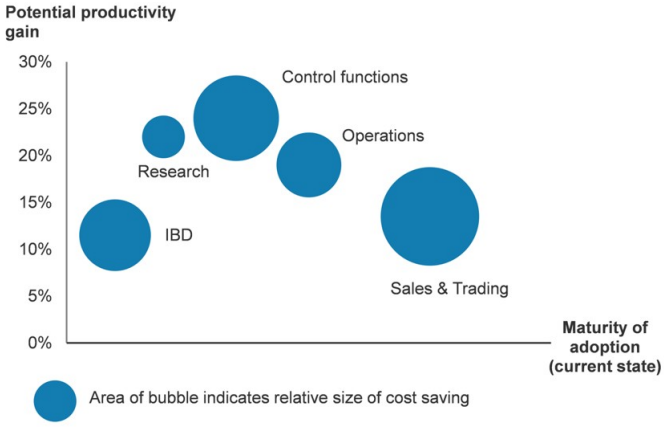
Source: Oliver Wyman analysis

The biggest prizes will come from full digital redesign of cross-functional processes. Activities such as pre-trade credit approvals and post-trade collateral management touch a large number of individuals and functions. Efforts to digitize to date have often focused on adding digital interfaces or addressing specific pain-points – but often amount to layering on top of existing processes. The credit approval is a good example of a process that has successfully been transformed in this way by some players in retail / commercial banking, often resulting in over half the total cost of the activity being stripped out.

Exhibit 31:

Productivity gains will come from across the organization, but control functions present the biggest opportunity in terms of % saving

Potential cost savings through productivity gains from automation and digital adoption by Wholesale Banking department, 5-8yr horizon



Source: Oliver Wyman analysis

There are also opportunities in the front office. These initiatives aim to enhance productivity as much as reduce cost. Predictive analytics can help banks optimize resource allocation and generate intelligent advisory ideas. Sales teams are building tools that can analyze a wide range of data to provide ideas and prompts, linking data around positions, market movements, conversations, social media and CRM systems. Analytical solutions are emerging that replace some of the legwork to produce reports and prospectuses in research and banking traditionally performed by armies of analysts.

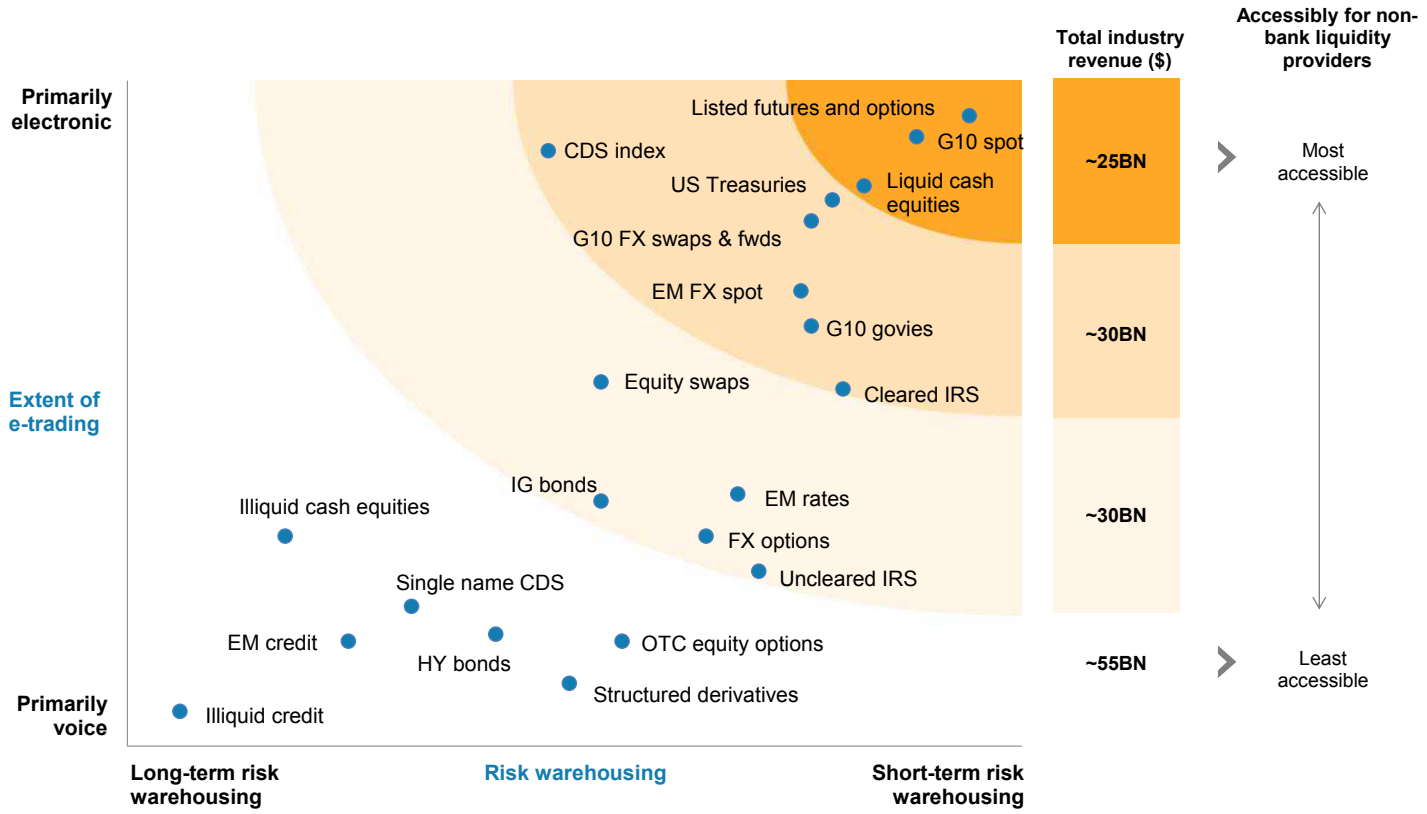
Battleground 2: Capturing customer value

More threatening developments for the banks are technology and data driven approaches that can allow non-bank players to capture customer value, through the provision to clients of liquidity and capital – or superior infrastructure for anchor activities.

A striking example is the growth of non-bank liquidity providers. Non-banks have grown rapidly and now account for 15-35% of volumes in spot FX and developed listed equities markets. High frequency traders were first, but the new and more threatening class of entrant deploys capital and takes positions to support market making. Non-banks benefit from lower regulatory costs, but most importantly they rely on market-leading algorithms and data interpretation rather than salespeople and traders to deliver tighter prices in the market.

Exhibit 32:

Non-bank liquidity providers are active in the lowest margin parts of the most liquid products, but are looking to extend their business model



Note: Total revenues exclude Core Prime Brokerage, Commodities and Munis

Source: Oliver Wyman analysis

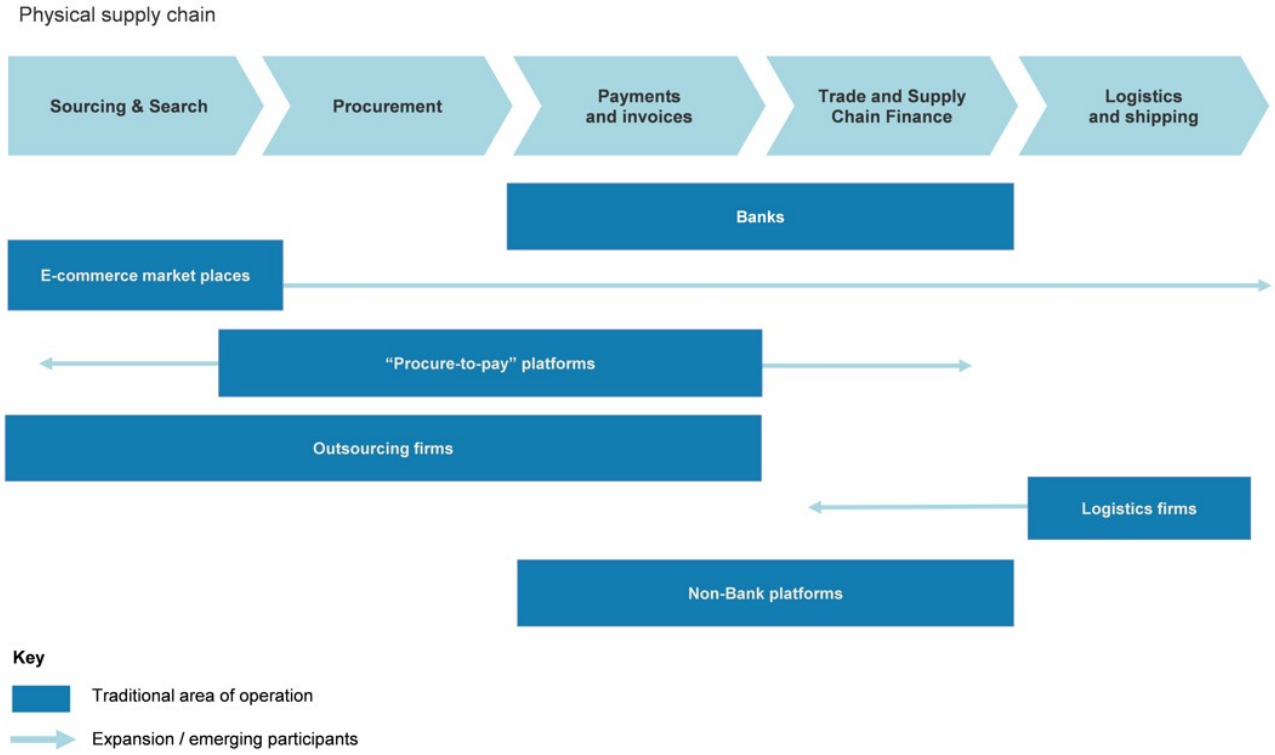
The good news for banks is that non-banks are active in the lowest margin parts of the most liquid products. For instance, across sales and trading we estimate that non-banks compete in only ~15% of the fee pool, principally in cash equities, US Treasuries and FX. As such their share of total revenues is 3-4 times lower than their share of volumes. The bad news is that they are likely to take more share as they build into new asset classes and extend their business model, with swaps and bond trading most likely to come next. Some non-banks will look to strike deals with smaller banks to effectively out-source market making. Others will look to rent technology to banks in a more traditional approach. Our analysis suggests that over the next 2-5 years non-banks could take $2-3BN of revenues from the Wholesale Banks.

Another focus area is Wholesale Transaction Banking, a ~$265BN business globally, competed for by global universals and a long tail of regional players. These businesses are gradually being drawn closer together with Capital Markets businesses as universal banks look to drive synergies in CFO/Treasurer coverage, maximize return on lending balance sheet, and skew the business mix to capital efficient products. There are two main areas of potential disruption:

- **Payments.** This is an infrastructure business, worth ~$70BN in revenues globally. A key competitive advantage is the size and reach of the international payment network that allows banks to safely facilitate payments globally, meeting the requirements of know-your-customer (KYC) and anti-money-laundering (AML) regulation across jurisdictions. Banks capture value from payment fees themselves, but also capture value from related products such as the FX income on cross-currency transactions, and liquidity management tools. New technologies such as distributed ledger technology could offer completely new payments rails that reduce settlement times, end-user costs and fraud risk. This opens up the markets to new entrants – both other banks without large correspondent banking networks, or non-bank players – and therefore presents a threat to incumbents. The pace and extent of disruption remains highly uncertain, largely due to the strong incumbency of SWIFT and the stickiness of the correspondent banking model – yet we are already seeing material disruption at the SME end of the market where new payments providers are emerging and winning with simple and easy-to-use propositions.
- **Trade Finance.** This is a lending business, worth ~$50BN in revenues globally across traditional Trade Finance and Supply Chain Finance. Here the threat to incumbents is that non-bank players – such as e-commerce firms, procurement platforms or logistics companies – capture the client interface and diminish the role of banks to 'dumb pipes' of financing. A number of FinTechs are emerging and gaining scale, and ecommerce platforms are increasingly offering financing products as part of an integrated solution. Leading banks are responding via selective investment in and partnership with FinTechs, investing in building out their own trade platforms, extending into non-financial flows, and leveraging their data on supply chain and payments activity to identify client opportunities and ultimately form a superior view on credit quality.

Exhibit 33:

The physical supply chain is undergoing a digital transformation, with participants expanding their offerings across the value chain including into financing



Source: Oliver Wyman analysis

A new dynamic in Transaction Banking

Transaction Banking is an important product area for many Wholesale Banks. It makes up 20-30% of CIB revenues for some players and is a key part of the corporate relationship, although many other Wholesale banks are not active in this area. The businesses of payments, cash management and trade finance together represent a ~$265BN revenue pool (excluding retail), with additional FX flows generated off the back of this. The market is highly fragmented, with many smaller commercial banks prominent in their local markets. Major Wholesale Banks make up only ~15% (or ~$40BN) of the global transaction banking revenue pool. The concentration in trade finance is much higher, reflecting the network advantage of regional / global banks.

In recent years most banks have been looking to grow the business, in pursuit of more capital light revenue streams and synergies in CFO/Treasurer coverage. This growing capacity has pressured margins, which along with low rates, has driven revenue pools down ~4% p.a. over the last 2 years. Looking ahead, rising US rates should give revenue pools a lift but there is a risk that protectionism could harm global trade.

The business also faces a number of structural pressures. The trade business is by nature cost and capital intensive, while payments is burdened by legacy platforms and a growing compliance burden. And many banks still have too many layers of sales/coverage and too much (or poorly directed) loss-leading corporate lending, dragging down returns. Finally, the business is ripe for digital disruption, with numerous manual processes that can be digitized and use cases for distributed ledger technologies.

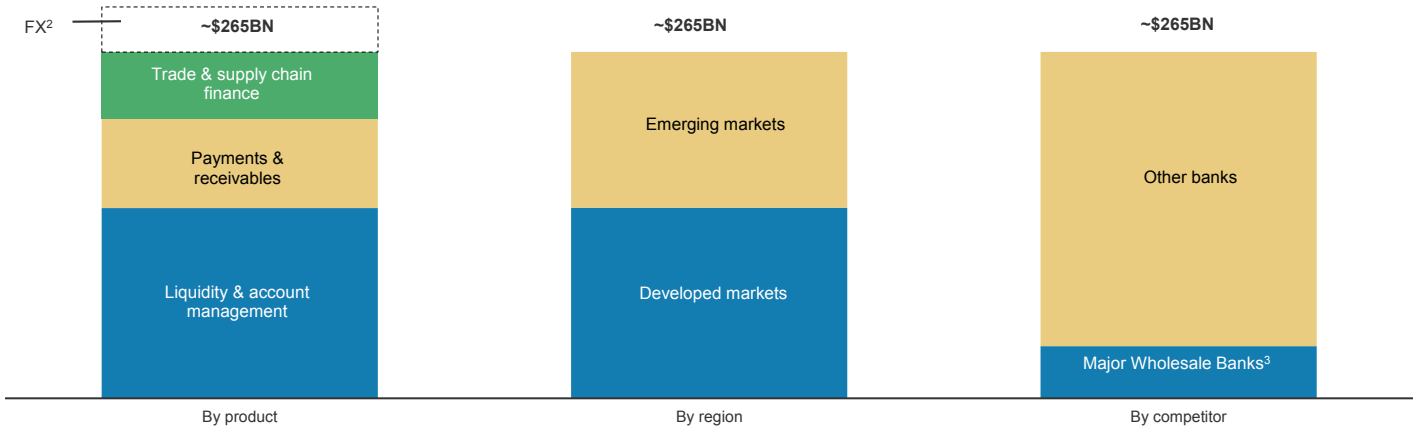
In response, incumbent banks are investing in focused growth strategies, making selective investment in new technologies, pushing through digitization of manual processes in trade finance and payments, and driving greater focus on balance sheet efficiency and pricing.

Looking ahead, advances in data and analytics could open up the possibility of new entrants selectively competing in the market. This could mean banks without traditional transaction banking capabilities partnering with FinTech firms to gain a foothold in the market, and non-bank players encroaching into parts of the value chain.

Exhibit 34:

The Global Transaction Banking market is highly fragmented and regionally diverse

Global Transaction Banking[1] revenue pools, 2016, $BN



1. In this context, GTB revenues include wholesale payments, cash and liquidity management, trade & supply chain finance; we exclude any retail banking revenues"
2. Trade and payments-linked FX is shown as a dotted bar to avoid potential overlap with the Wholesale banking wallets
3. Major Wholesale banks represents a cohort of large banks who focus on FICC, equities and IBD

Source: Oliver Wyman analysis

Battleground 3: Tackling core legacy infrastructure

Some of the biggest savings opportunities are in the simplification of the technology environment. The complex web of systems, processes and technology that make up a bank today have been a source of competitive advantage, creating a considerable barrier to entry. But in recent years it has become clear that legacy platforms don't always provide value-for-money and often are not the best foundation for driving the digital transformation of the rest of the business.

The challenges are most acute for the largest players. Most large players are burdened with old, complex and fragmented legacy systems, often the result of mergers, and a history of running the business in tight product silos. The data environment for large banks is especially problematic, presenting a challenge to analytics, automation, and legacy infrastructure transformation. Some of the most radical steps in recent years to overhaul infrastructure have been taken by banks going through strategic restructuring, which has provided the cover to write-down legacy assets and set aside change budgets. We have seen some smaller and mid-sized banks fully re-platform, yielding savings of 40-60% of IT run costs.

Tackling this challenge will require a multi-year vision, management commitment and substantial investment. A "big bang" solution is not viable for most of the largest banks, but new technologies such as robotics and data interface standardization open up the possibility of more easily working around the legacy infrastructure and replacing individual components.

Battleground 4: Employee value proposition

The rise of automation and robotics poses deep questions for management teams. Most immediately, significant further headcount cuts are likely as the industry reforms, presenting a challenge to motivation and culture. More fundamentally banks will need to evolve their employee proposition to attract and retain people with the skill-sets they need to drive this change agenda. Non-bank and FinTech firms have a distinct cultural advantage in the battle for the best technology talent.

Changes are also needed to governance structures and decision making. Many banks are looking to create more "vertical" control over infrastructure functions to align investments and prioritization to business units rather than "horizontal" technology teams working across business divisions. A more radical approach would be to dramatically shrink the role of technology functions, creating small "lab" teams that are free to innovate and iterate in a way more akin to an independent tech firm, with developers and change agents throughout the enterprise. This will in turn require leadership in the business and functions that are able to drive a technology agenda, as well as mastering their traditional disciplines.

The largest banks have an advantage as they can invest more heavily and on multiple fronts. Yet driving change is naturally more complex within a larger organization. And as more capabilities are third-party owned (robotics companies, cloud computing, AI specialists etc.), scale advantages are eroded. Successful technology innovation, we believe, will be driven by the ability to carve out and target investment budgets and to drive and deliver change – rather than by scale.

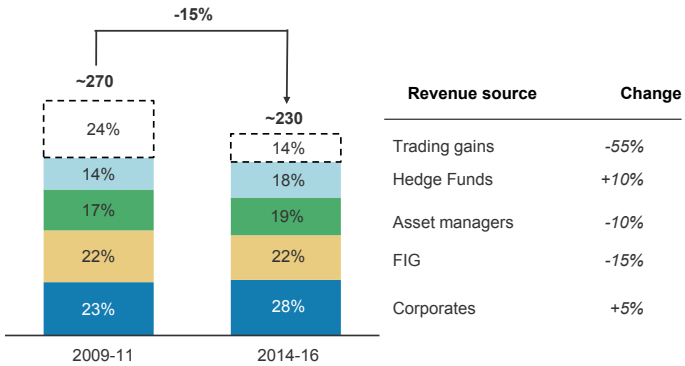
Banks: 3. Clients, products, winners and losers

Structural shifts in the client base are redrawing the battle lines for the Wholesale Banks. As capital pressures ease, and restructuring winds die down, the battle for market share will intensify once again, but this time around it will be different. Firstly, the composition of industry revenues is shifting. Since 2011, the Wholesale Banks wallet has migrated away from trading and institutional clients and towards corporates, and we expect further skews even as the cycle improves. Pressures are particularly acute in equities. Secondly, the supply side today is more heterogeneous, reflecting the wide range of decisions that have been taken on product, region and client footprint. We expect this to drive lasting variation in returns across banks as the effects of portfolio decisions, operating leverage and capital release play through.

Exhibit 35:

Trading gains have fallen steeply since the crisis, whilst corporate franchises are growing as a proportion of revenues

Wholesale Banking revenues, FICC, equities and IBD, 2009-16, USD$BN



Note: Asset Managers category also includes Pension Funds; Corporates includes Corporates and Publics; FIG includes Banks, Central Banks and Insurers
Source: Oliver Wyman analysis

A cyclical recovery in client activity looks set to drive revenues up in 2017, reversing a prolonged period of decline. 2016 revenues fell ~1%, taking the total 2010-16 drop in industry revenues to ~15%. Fixed income ended 2016 up ~10% on the prior year, as a dismal H1 was offset by a strong H2 on the back of volatility around political events. Equities and IBD disappointed despite steady growth in equity valuations through the year. We expect the cyclical recovery that kicked off in Q3 to carry on through 2017, with year-on-year improvements concentrated in H1. We project Fixed Income up a further 2-5% and modest but healthy growth in equities and IBD, as strong valuations drive equity raising and trading.

In an uncertain environment, there is a premium on breadth and on dynamic resource allocation. Our ~$100BN bull-bear case range for 2019 revenues reflects the deep uncertainty in the market today. Each of our four scenarios will drive very different outcomes across the product range.

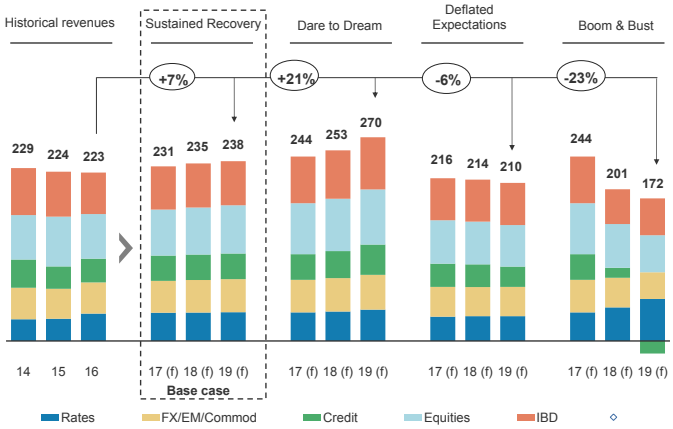
- Our "Sustained Recovery" base case calls for modest but broad-based growth across products and client groups.
- Our bull case, "Dare to Dream", drives a greater acceleration of growth in IBD, equities and credit as corporate earnings rise and investors shift to 'risk-on' strategies across the board.
- Our "Boom & Bust" bear case follows the bull case path, but then abruptly shifts course in mid 2018, with IBD, equities and credit crashing and growth in macro only partially offsetting these sharp declines.
- Our "Deflated Expectations" bear case sees a return to the 2012 - mid 2016 pattern of slow revenue erosion over time, with a relatively balanced impact across products.

Given the uncertain environment and wide range of possible outcomes, there will be a premium on breadth and on the ability to dynamically allocate resources across product lines. Banks today live with a complex set of financial resource constraints across multiple dimensions (leverage, RWA, liquidity etc.) and entities. Few today have the data, systems and governance structures that would allow for the rapid redeployment of resources to make optimal use of available capacities and re-orient towards the most attractive areas. This could be a vital source of edge.

Exhibit 36:

Wholesale Banking revenue forecasts under different outlook scenarios

Historical and forecast wholesale revenues under different scenarios, 2014-2019(f), US$BN



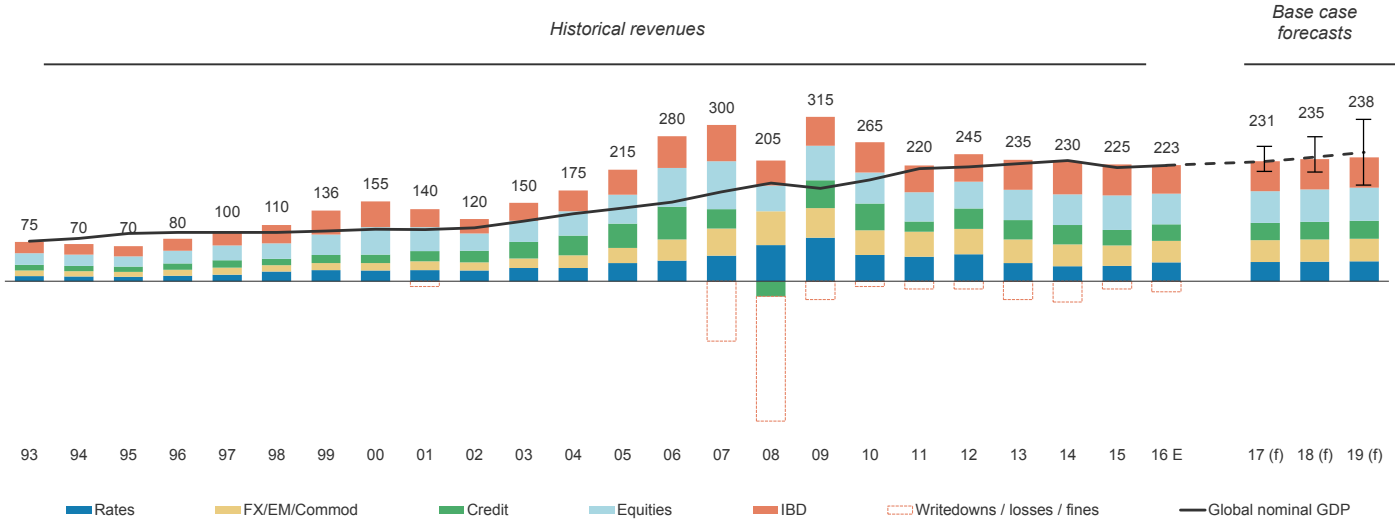
Source: Oliver Wyman analysis

Please see detailed scenario descriptions in Exhibit 46

Exhibit 37:

Having dipped to meet global GDP in 2016, Wholesale Banking industry revenues are forecast to track GDP in our base case forecasts

Historical and forecast wholesale revenues and global GDP , 1993-2019(f), US$BN

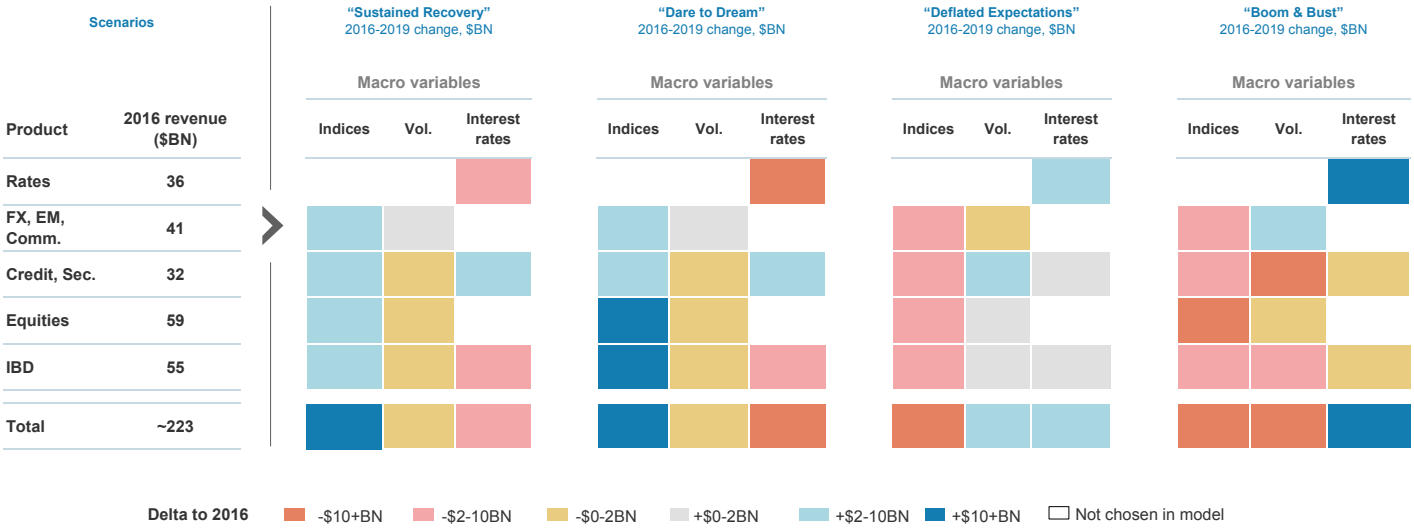


Source: Oliver Wyman proprietary data and analysis, Oxford Economics

Exhibit 38:

Sensitivity to macro-variables from our regression model

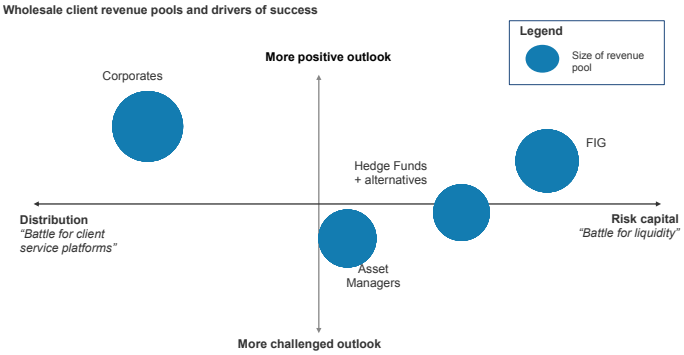
Change in revenues, $BN, 2016-2019



Note: Vol= volatility
Source: Oliver Wyman analysis

Exhibit 39:

Corporate clients are growing in strategic importance as Asset Managers are pressured



Note: Asset Managers category also includes Pension Funds; Corporates includes Corporates and Publics; FIG includes Banks, Central Banks and Insurers

Source: Oliver Wyman analysis

While cyclical growth should benefit all segments, we expect the wallet to continue to skew away from the Asset Managers and towards corporates and FIG clients. Driving economic value (not just revenue) from these clients poses different challenges. With corporates the client service platform is the key battleground, owning the customer interface and driving growth without dragging down the economics with too much coverage and lending costs. Value for FIG (Financial Institution Groups) clients is driven more by risk capital, be that blended with technology in the form of liquid product market making or with structuring capabilities in the solutions businesses. Asset Managers and Hedge Funds lie between these extremes, risk capital and pricing is vital, but there is renewed focus on the client service platform and middle and back office insourcing models.

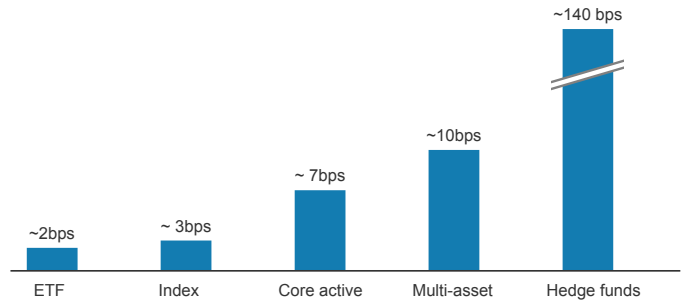
The Asset Managers wallet looks most threatened. Growing pressures on the Asset Managers will be passed on to the banks. Key watchpoints for the Wholesale Banks will be:

- **Shift to passive.** Active Asset Managers today generate 2-4x more Wholesale Banks revenues per unit AUM than passive funds. Our forecasts for further shifts of AUM from active to passive management would imply a $2-4BN revenue loss for the Wholesale Banks.
- **Consolidation.** Our analysis suggests large funds generate >50% less Wholesale Banks revenue per unit of AUM than smaller and mid-sized funds. Large clients have been far more willing to break up their wallets across multiple players to source pockets of liquidity, achieve superior economics, and interact with specialist providers.
- **Alternatives.** The outlook for Hedge Funds in particular is of concern, given their importance to bank revenues. Hedge Funds make up only 4% of global Asset Management AUM but as much as ~50% of Wholesale Banks revenues from the buyside. They have suffered faster net fund outflows than active management. But the Wholesale Banks wallet has proved more stable, buoyed by the funds' demand for execution and financing. We expect Hedge Funds to adapt fee structures to defend their model, while traditional players will increasingly venture into the alternatives space.

Exhibit 40:

Wholesale Banks earnings from ETF AUM are a quarter of the earnings from Core active AUM, highlighting the challenge to banks form the shift to passive

Wholesale Banking earned from buy-side per unit of AUM, 2016, bps

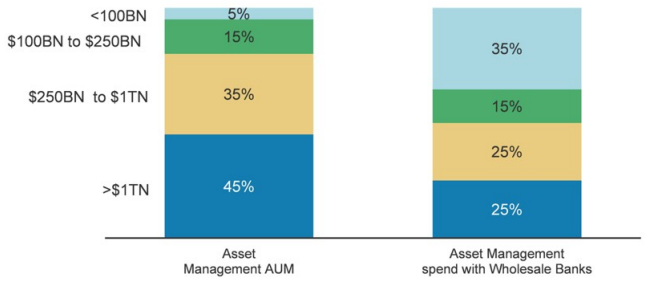


Source: Oliver Wyman analysis

Exhibit 41:

Larger Asset Manager clients harness their scale and specialist providers to achieve superior economics from the Wholesale Banks

Asset Management industry by Asset Manager, broken down by AUM and firm spend with Wholesale Banks, 2016



Source: Oliver Wyman analysis

Yet with change comes opportunity. Innovative banks will seize on these shifts in the Asset Managers to adapt and create new service models, by:

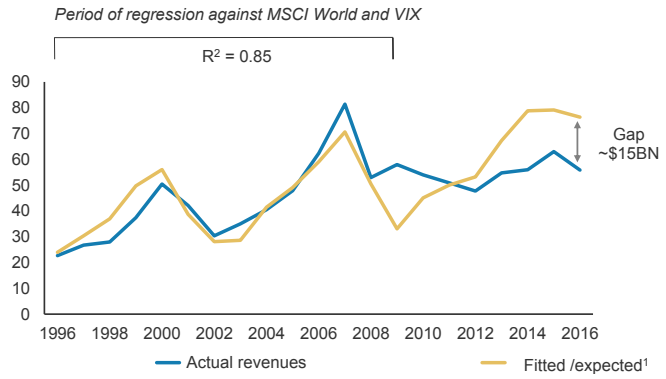
- Providing fee-based, agent-like execution models that offer outsourced best execution, removing cost and conduct risk from the Asset Managers;
- Providing middle and back office services, leveraging banks' own infrastructure or Investor Service platforms;
- Building more effective coverage models for multi-asset and factor-driven investing approaches; and
- Creating dedicated teams providing services to ETFs cross-asset class.

Structural challenges are particularly acute in the equities business, pressuring mid-tier players. Changes in client behaviour and the growing role of electronic trading have knocked ~$15BN off equities fee pools compared to the forecast our model suggests based on historical drivers. Scale and capital deployed in prime and derivatives books matter more than ever in driving attractive returns, whereas index performance matters less. Cash equities platforms face pressures over the next 1-2 years as the proposed unbundling of research and execution commissions under MiFID 2 comes into force. Fund managers are likely to drive down research commissions and consolidate spend amongst fewer providers, shaking out smaller players. The impact on execution commissions could be even more profound. The leading 3-4 equities players will look to press their advantage, and technology-driven execution specialists look set to benefit in particular. Mid-tier full service firms will be pressured. Some may need a more profound restructuring of the business to drive out cost and re-focus around accretive and genuinely strategic areas.

Exhibit 42:

Equities revenues are now less correlated to traditional drivers of the business, with ~$15BN gap to expected revenues in 2015-16

Global equities revenues, fitted vs. actual, $BN, 2006-16



1. Expected Equities revenues for 2009-16 have been calculated using a statistical regression, fitted to quarterly average MSCI World index and quarterly maximum VIX between 1995Q2 and 2009Q1

Source: Oliver Wyman analysis

Fixed Income will face similar impacts, but a wider variety of models are emerging and can prosper. After waves of restructuring, a number of distinct drivers of value have become clear in fixed income.

- Flow market-making – which is increasingly technology driven, and most exposed to the mounting pressures on Asset Manager clients
- Corporate and captive client distribution – which has remained an attractive profit stream for those with access to the client base
- Risk warehousing – including asset origination, illiquid trading and solutions businesses, where returns have remained strong for those with risk capital, structuring expertise and institutional risk management capabilities
- Financing – which remains a powerful driver of top line for those players with balance sheet and funding capacity, especially as these resources have repriced.

As banks have re-shaped their fixed income portfolios they have found fewer dependencies across businesses than many had feared. In many cases, a retrenchment from one (weaker) business has produced limited damage on other areas. We expect further shifts in share as management teams continue to refocus. Some banks will look to recommit capital to risk warehousing and financing activities in search of topline growth. In flow market making, we see an increasingly strong case for smaller players to outsource some of their activity to scale banks, or non-banks. There is a mis-match between the drivers of value for the business – driven by corporate distribution, and the cost, capital and non-financial risks that are more driven by trading and institutional sales

Exhibit 43:

There is a case for smaller banks to consider outsourcing FX market-making

FX resource requirements by source of revenue for a regional bank[1]

		Distribution			
Cost		**SME / Retail**	**Corporate**	**Institutional**	**Trading**
Risk taking	*10-15%*				
Coverage & sales	*35-40%*				
Trading systems	*15-20%*				
Controls	*~20%*				
Post trade	*~10%*				
Capital					
Market risk	*15-20%*				
Credit risk	*55-60%*				
Operational risk	*25-30%*				
Revenue		40-50%	15-30%	15-30%	~10%

Resources required to support revenue stream

- No direct requirement
- Minimum resource required
- Majority of resource required
- Full capabilities required

1. Regional bank defined as commercial/retail banks with an FX platform outside of the top 10.

Source: Oliver Wyman analysis

In IBD, the shifting wallet could pressure some models; technology disruption remains a threat for some and an opportunity for others. The overall outlook for the corporate wallet is positive under most scenarios, but we expect a shift in activity towards equity origination and advisory in both our growth scenarios. This may expose some IBD businesses that have restructured around the 2009-16 debt boom in the business. Wholesale banks have migrated toward several corporate coverage models since the crisis, and face an increasingly strong set of competitors. Each model faces unique challenges as value shifts across the business.

- Global Investment Banks will naturally benefit from the rotation into advisory and may expand their footprint into high value areas of the transaction banking value chain, as technology threatens to erode barriers to entry.
- Universal Banks enjoy a substantial advantage from their stable corporate and transaction banking business, but this group is less likely to benefit from the rotation into advisory and depends more heavily on high cost relationship lending. A key focus for this group is defending the transaction banking business.
- The chasing pack, which is largely composed of European and Asian competitors, is under the greatest threat, potentially having slipped below the minimum scale required to compete in this new environment under the weight of restructuring over the past 5 years.

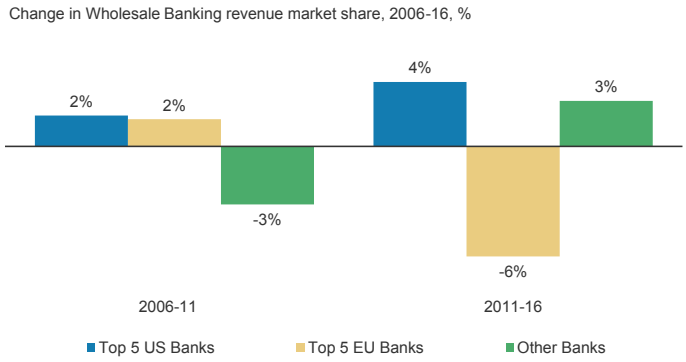
Some share may rebalance, but skews on returns will remain wide as the effects of operating leverage and capital play through. The last 5 years have seen dramatic market share moves as banks have restructured their portfolios. Most striking has been the shift towards the top US banks. The Top 5 European banks have ceded ~6% market share over the last 5 years, while the Top 5 US banks have gained ~4%. Some of these shifts could reverse as restructured banks re-commit and look to take back share. We also expect to see further gains for boutiques and specialist players within their (expanding) niches.

However, focus will not just be on market share gained, but also the costs of capturing this share. Operating leverage, the rate at which revenue growth translates into value creation, will be the mantra.

Prior cycles have seen returns across banks converge as all boats were lifted on a rising tide; the dynamics today are more complex. The industry today is much more concentrated, conferring significant advantages to the largest banks in terms of funding technology investment and accruing capital. The Top 5 players today are ~2 times larger than the next 5 compared to ~1.6 times back in 2006. The potential for capital release is a big swing factor that looks most likely to give US banks a boost to RoE. Yet in a shifting client, technology and policy landscape, it is not guaranteed that the advantages will remain pooled where they have been in recent years.

Exhibit 44:

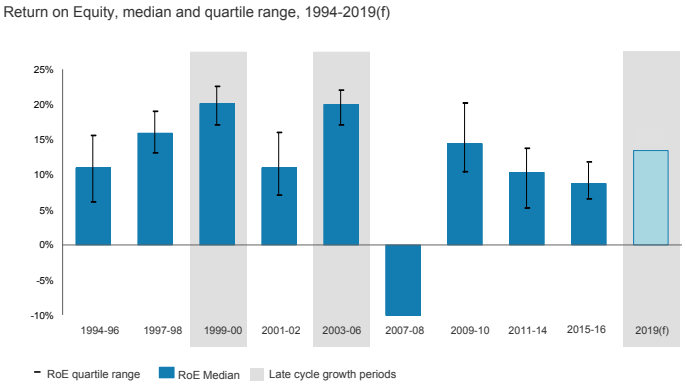
In the battle for market share, the US Top 5 have taken ~6% since 2006, with the Top 5 EU banks having given up the most



Note: Includes the impact of industry consolidation
Source: Oliver Wyman Analysis

Exhibit 45:

Late cycle growth periods have tended to see returns narrow; this time might be different



Note: core perimeter, excluding fines and ring-fenced legacy
Source: Oliver Wyman analysis, public accounts and reports

Exhibit 46:

Detailed scenario descriptions

	"Sustained Recovery"	"Dare to Dream"	"Deflated Expectations"	"Boom and Bust"
Summary Narrative	• The global macro and regulatory outlook improves, followed by moderate asset price growth and interest rate rises • Supervisory pressures and balkanization are relaxed and the industry finds room to add capacity • As market activity picks up and capacity is released, Wholesale Banks revenues gain ~7% to ~$238BN	• Strengthening global economy, elevated levels of volatility and far less restrictive regulation globally; confidence returns and markets rise • Broad-based growth in Wholesale Banks earnings driven by growth across client segments and easing of supervisory intensity • The industry returns to 2010 revenue levels by 2019 (~$270BN)	• Failure of policy to follow through into meaningful economic growth leads to a period of stagnation • No major shifts in client activity take place and Wholesale Banks capacity remains constrained • The industry slowly bleeds revenue in line with the 2012-2015 trajectory to settle at ~$210BN by 2019	• Asset prices are over-inflated by policy initiatives and move into bubble territory before being rocked by a new crisis which pulls the floor out from under the markets • Clients follow crisis-like patterns of behaviour – liquidating positions, reducing leverage, and seeking protections for residual or natural exposures • Revenues drop to ~$170BN by 2019
Economy markets	• Sustained uptick in economic growth driven by the US • Equities markets rise steadily but moderately from current levels • US rates rise, ECB QE withdrawn, yield curves steepen, currencies move in response	• Accelerating global economic growth driven by expansionary policies • Bull market with elevated volatility, investors shift to "risk on" • Normalization of interest rates, credit spreads remain tight due to growth	• Growth disappoints; US rate rising is put on hold / ECB QE continues • Equities markets reverse gains of last 6- 12 months, but avoid collapse • Volatility remains muted, spiking only briefly and unpredictably	• Strong growth driven by expansionary policies at the outset • Rising asset prices, weak fundamentals set up market for shock • Significant shock (e.g. US credit, EU sovereign, EM economy) triggers crisis • Contagion quickly spreads across financial markets
Policy regulation	• Policy actions: - Modest tax reform and stimulus activities in the US boost growth - Hard Brexit plays out, but outcomes are manageable - No major political changes within the EU - but continued uncertainty • Regulation: - Intensity of supervision in US eases, but ruleset remains the same - Global rulemaking (Basel 4) stalls with limited additional pressure on bank capital levels - In Europe IHC implementation is measured	• Policy actions: - Strong fiscal stimulus in the US alongside corporate tax reform - Europe stabilizes and converges around a growth agenda; no real disruption from Brexit (or IHC) • Regulation: - Reassessment of US regulations with substantial easing of supervisory intensity - No race-to-the-bottom, but caution over additional regulatory hurdles	• Policy actions: - Tax and stimulus initiatives in US fail to materialize - Brexit (and IHC) cause disruption to economic and political landscape European elections create sense of uncertainty in the outlook • Regulation: - No new regulations in the US, but limited rollback of existing rules - Global rulemaking (Basel 4) plays out as expected pre-election - EU increases frictional costs for foreign banks, but fewer new hurdles for domestic banks	• Policy actions: - Tax and stimulus initiatives in US exacerbate bubbles - Limited capacity for monetary action or intervention to support banks in US and EU add fuel to fire • Regulation - Some initial loosening offset by backlash against industry - Regulatory policy increasingly fragmented and retaliatory - Intense scrutiny over conduct and controls adds to costs for banks
Industry capacity	• Reduced intensity of supervision (via CCAR, RRP, etc.) releases significant share of capital buffer, est. $20BN • Modest net increase in Wholesale Banks capacity as banks manage financial resource constraints and battle for share	• Accommodative policy, regulatory and supervisory climate reduces regulatory burden and frees up substantial capital • Strong macro environment and steady returns lead to rotation of capital toward Wholesale Banks businesses	• Further balkanization of market traps capital and liquidity, leading to reduced capacity from 2018 onwards • Combination of macro conditions and new competition drives sharper participation choices / exits	• Several major institutions forced to exit investment banking entirely • Remaining Wholesale Banks players are unable to capture the market share release due to tight and intensifying capital constraints

Source: Oliver Wyman analysis

Exhibit 47:

FICC revenue evolution

	2016 market dynamics	2016 vs. 2015	2017 outlook	2017 vs. 2016
Rates	• Continued momentum through the year, with acceleration through H2 as volatility rose • US treasury yields moved higher in Q4 also contributing to big revenue increase in H2 • Options, structured and cross-currency benefiting most from increased volatility and $ moves	$36 BN +20–25%	• Volatility providing continued tailwinds for remaining players, but pricing pressure growing • US likely to see biggest growth if rates continue to rise, Europe likely focused on specific events • Some normalization after strong H2 2016	$37 BN +0–5%
FX	• Modest benefits of individual currency events (Brexit, Trump) giving boost to revenues • Margins heavily pressured by non-banks	$14 BN +10%	• Diverging interest rate path offering boost to trading revenues and increased client demand • But margins under pressure and structural growth relatively limited	$15 BN +~5%
EM	• Weakness in LatAM, particularly at the end of the year, with losses for some banks • Asia seeing capacity withdrawal from some globals, but improved macro outlook helping those who remain in the region	$20 BN +0–5%	• Rising interest rates in the US could lead to outflows, and potential for a trade war looms • However broad improvement in global GDP trajectory provides, in balance, more tailwinds	$21 BN +0–5%
Credit	• Weak Q1 more than offset by strong growth in the final months of the year, with support from uptick in primary pipeline • Rally in HY/distressed spreads in H1, following energy-related distress in HY in H2 2015	$17 BN +5–10%	• Strong momentum coming into the year in volumes, and volatility boosting margins • But remains capacity constrained; outlook influenced by regulatory environment • Forward path of rates may dampen primary issuance but lead to more attractive yields in secondary	$18 BN +~5%
Securitised	• Market successfully navigated introduction of new risk retention rules for securitised products • Conduits and issuance volumes were sustained • Results split between agency (good) vs non-agency	$15 BN +5%	• Markets to benefit from benign macroeconomic backdrop and stable credit fundamentals • Volumes to remain weighted towards more agency and less ABS or non-agency MBS	$16 BN +0–5%
Commodities	• Oil results fell back after a stellar 2015 • Strong results in NA P&G for some • Conditions in several other asset classes remained stable	$6 BN -0–5%	• Upside from recovery in energy prices, investment in NA infrastructure, with wide skews to outlook • Potential tightness in metals markets from production cutback • Cautious return of investors to the asset class	$7 BN +~5%
FICC		**$109 BN + ~10%**		**$112–115 BN +2–5%**

Source: Oliver Wyman analysis

Exhibit 48:

Equities revenue evolution

	2016 market dynamics	2016 vs. 2015	2017 outlook	2017 vs. 2016
Cash equities	• Record-low issuer activity and weak pipelines in ECM with knock-on impact on secondary S&T • Subdued investor activity Q1-3 • Some volatility spikes around Brexit event • US election prompted Q4 uptick and revaluations	$24 BN -10%	• 2017 benefiting from new issue activity and positive trading climate • Revenue upside less marked than prior cycles dues to structural shifts (to passive, research unbundling, and electronic)	$25 BN +0– 5%
Derivatives	• Normalization following 2015 rally (esp. in Asia) • Some pick-up in Q4 trading environment • Low yields and regulation impacting retail structured products (esp. in EMEA) • Corporate derivatives impacted by rate environment and bond buying programmes	$18 BN -15%	• Increase in market volatility leading to an increase in revenues, however not at the level of 2015 • Corporate derivatives continue to increase as rates rise, skewed towards the US	$19 BN +5–10%
Prime and synthetics	• Comparatively robust with HF leverage remaining high • AUM has however decreased as investors start looking for alternative (cheaper) strategies, e.g. smart-beta • Synthetics more impacted by normalization in Asia	$17 BN -5%	• Share continues to consolidate among the leaders (bifurcation of banks de-leveraging and those investing) • HF AUM outflows offsetting underlying growth • Fee structure reviews, disappointing 2015/16 performance and spare capacity likely to impact the Wholesale Banks fee pool	$17 BN ~ flat
Equities		**$59 BN - ~10%**		**$60 – 62 BN +0–5%**

Source: Oliver Wyman analysis

Exhibit 49:

IBD revenue evolution

	2016 market dynamics	2016 vs. 2015	2017 outlook	2017 vs. 2016
DCM	• DCM revenues were down at H1 but recovered in a strong H2 • Investment grade volumes accelerated through the year ahead of expected rate hikes in the US • LevFin market recovered somewhat from 2015 • Investor demand for yield remained a major driver of activity	$21 BN +0–5%	• Strong Q1, supported by TLAC-induced FIG issuance, but natural slowdown in the business as rates finally rise – impacting LevFin more than IG • Hard landing very unlikely given strong demand for refinancing and transaction-linked activity with economic growth	$20 BN -5%
ECM	• Significant macro uncertainty and a reluctance to bring new issuers / sponsored exits to market effectively closed the IPO market, leading to the lowest annual ECM volumes since 2012 • Continued trend towards accelerated offerings/blocks driving further margin compression • Minor uptick in sponsor-led issuance in the middle of the year	$15 BN -25–30%	• Short-term economic growth encouraging a recovery in ECM, as volumes rebound from near-historical lows and demand shifts away from financing • Volumes buoyed in part by deals shelved in 2016, though still subject to political risks and market volatility	$17 BN +10–15%
M&A	• Advisory activity tailed off after three consecutive year-on-year rises, however some sectors remain strong (e.g. tech and agribusiness) • Cross-border deal volumes at historic highs, driven by inbound US and outbound China	$19 BN -0–5%	• Volumes to recover somewhat as cheap financing (in Q1) encourages deal flow • Cross-border deal volume should continue to rise, as corporates look to take advantage of economic growth pockets • However, revenues likely to remain below historical highs and susceptible to economic risks and policy changes	$21 BN +5–10%
IBD		**$55 BN - 5-10%**		**$56 – 58 BN +0–5%**

Source: Oliver Wyman analysis

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Equal-weight/Hold	**1418**	**43%**	**297**	**45%**	**21%**	**699**	**46%**
Not-Rated/Hold	**61**	**2%**	**8**	**1%**	**13%**	**8**	**1%**
Underweight/Sell	**638**	**20%**	**76**	**11%**	**12%**	**269**	**18%**
TOTAL	**3,265**		**667**			**1527**	

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