Charting a Path to a Post-Trade Utility

How mutualized trade processing can reduce costs and help rebuild global bank ROE

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Executive summary

Global banks face an ongoing wave of regulatory and economic challenges that will have a growing impact on profitability. Despite significant cost cutting and restructurings post-crisis, most banks still struggle to post returns that exceed their cost of capital. Over the next five years, new regulations and market structure changes could drive down returns-on-equity (ROE) by up to five percentage points. Confronting this challenge will require an intense focus on the middle and back office, where post-crisis regulation and aging technology carry high costs.

The most significant opportunity for efficiency gains is in trade processing, where the industry currently spends \$17 billion to \$24 billion per year. Of this, banks spend \$6 billion to \$9 billion annually processing trades in highly standardized asset classes.¹ While some institutions have embraced outsourcing in select asset classes or geographies to reduce costs, the largest institutions have yet to take the next logical step of sharing, or "mutualizing," the costs of their most standardized and least differentiating trade processes.

A utility model could wring out 20% to 40% of costs, and save the industry up to \$4 billion annually.

Up to \$4 billion in annual savings

We believe that by mutualizing highly standardized trade processing functions through a utility model — where participants benefit from economies of scale and network effects — banks could wring out up to 40 percent of costs and the industry could save \$2 billion to \$4 billion annually.²

The potential benefits go further. A utility model could increase overall productivity and innovation, and strengthen regulatory compliance and risk management — and even quicken the path to recovery and resolution and a shorter settlement cycle. At the highest level, a trade processing utility could turn a major cost center into a more efficient operation that frees up dollars to reinvest in other areas.

Within the trade life cycle, core post-trade processing (clearance and settlement, custody, financing, books and records) is the logical starting point for an industry utility. As the system of record, it sits at the center of the trade life cycle. Its high levels of standardization and growing compliance requirements make it one of the most attractive areas for cost mutualization.

But a number of hurdles in the creation of an industry post-trade utility have halted efforts in the past and, in some cases, remain as significant issues. These include:

- Alignment over governance, ownership and pricing models
- Setting viable scope and functional priorities
- Identifying a viable technology and operating model to support multiple banks with unique business, regulatory reporting and datasecurity requirements
- Concerns over managing conversion risk and multi-bank technology delivery

Institutions have invested hundreds of millions of dollars in unsuccessful attempts at building posttrade utilities by engineering new technology platforms or re-architecting existing ones. Even today, the time and cost of re-architecting one bank's proprietary platform to create the basis for a utility is likely to be prohibitive, due to the complexity of adapting one system to meet the diverse needs of multiple firms. Beyond this, we estimate that converting banks onto the platform would account for approximately two-thirds of the overall effort associated with creating a posttrade processing utility.

An inflection point

But with growing ROE pressure, fewer banks competing head-to-head across markets and greater willingness to consider new operating models, the industry may be nearing an inflection point where the potential benefits of a global trade processing utility outweigh the challenges that have undermined past efforts.

By definition, a trade processing utility would need to support multiple institutions under a common technology platform and operating model; provide outcome-based pricing based on agreed service levels; and enable shared governance. Charting a quick and effective path will require a carefully scoped approach, starting with the most liquid and standardized asset classes and focusing on regions where the market structure is most centralized. It requires highly configurable multi-bank technology, and skilled conversion and delivery resources. It requires an operating model capable of delivering high-quality service to multiple institutions, while providing appropriate regulatory reporting and governance. To ensure ongoing investment and innovation it should operate under a commercially driven model with outcome-based service-level agreements (SLAs).

Risk of doing nothing

Perhaps the biggest risk the industry faces is in doing nothing. Current ROE pressures come in the context of even longer-running challenges. Shifts in technology and market structure have been testing banks' economic models for well over a decade. Without more aggressive changes to their cost structures, banks' ability to recover ROE will continue to be challenged.

In this paper, we analyze:

- 1. The cost mutualization imperative in trade processing
- 2. The growing utility opportunity
- 3. The critical challenges in creating a post-trade utility
- 4. A path forward

1. The cost mutualization imperative in trade processing

Banks have taken aggressive steps to rebuild ROE in the face of post-crisis regulation. However, as a new wave of regulation is introduced and market structures continue to change, business rationalization and headcount reduction will not be enough to earn their cost of capital. Cost reduction remains one of the most critical levers for reversing ROE declines.



Cost reduction remains one of the most critical levers for reversing ROE declines (see chart above). But with front-office headcount reduced by 20 percent since 2010³ and back-office investments rising due to regulation, many banks have exhausted the major cost-reduction opportunities within their existing operating models, and have little choice but to pursue more aggressive measures.

One of the most significant opportunities lies in trade processing, where the industry spends \$17 billion to \$24 billion per year on core post-trade processing, reference data, reconciliations, trade expense management, client life-cycle management, corporate actions, tax and regulatory reporting.⁴

For many institutions, inefficiencies and redundancies run deep in these areas. A drought in technology investment that started in the mid-2000s, and worsened after the financial crisis, has left many banks with aging technology infrastructure. Meanwhile, banks continue to bear high costs from system redundancies due to the history of industry consolidation. Historically, banks considered post-trade processing to be an area for competitive differentiation. Institutions leveraged highquality post-trade operations to distinguish themselves in the market. But standardization and automation of trade workflows — driven by a combination of internal, vendor and industryled efforts — have diminished this potential. For example, today virtually all U.S. institutional equity trades are executed in a similar way and cash fixed income trades are approaching similar levels of standardization.

A \$6-\$9 billion annual cost base

Recent ROE pressures have put the cost of trade processing into stark relief. Of the \$12 billion to \$17 billion the industry spends on core post-trade and related functions, we estimate that the most standardized asset classes — namely, equities and fixed income, excluding OTC derivatives amount to \$6 billion to \$9 billion annually. This represents one of the most duplicative cost structures in capital markets, with potential cost reduction of 20 percent to 40 percent. The adjacent trade expense functions, which represent \$5 billion to \$6.5 billion in costs, offer an additional 8 percent to 10 percent in potential cost savings (see chart below).

Standardization of the trade process has opened the door to more efficient operating models, making the potential for cost reduction through shared, or "mutualized," trade processing unprecedented.



Natural starting point

The greatest potential lies in core post-trade processing — clearance and settlement, custody, financing, and books and records — where processes are the most consistent, standardized and least differentiating for individual banks. Its position at the center of technology and operations makes it a natural starting point for an industry utility.

Core post-trade processing is central to the trade life cycle, matching buyer and seller records, confirming trade terms, clearing and settling trades, calculating margins and performing custody and asset servicing. As the system of record for banks, it also delivers a range of data useful to other critical functions. For example, it provides cost-basis data for tax reporting, supports corporate actions, regulatory compliance and reconciliations, and contributes to reference data and trade expense management (see chart below).

The imperative for significant cost reduction has led to serious discussions about creating an industry utility to mutualize banks' trade processing cost structures, particularly the core post-trade function, which is a logical starting point for a utility.

The greatest potential for cost reduction lies in core post-trade processing.



2. The utility opportunity

In the past, conversations about leveraging an industry post-trade processing utility to mutualize costs were led by a handful of forwardthinking bank operations and technology executives. Today, the dialogue is being initiated within the C-suite, based on near-universal agreement that the current cost paradigms cannot continue.

Since the early 2000s, a number of banks have worked to reduce post-trade costs by

outsourcing discrete technologies and processes and undertaking internal re-engineering. But beyond select asset classes and geographies, most major institutions have not fully capitalized on the opportunity for cost mutualization.

Meanwhile, the number of functions eligible for mutualization and the spectrum of approaches to achieving it have grown. These range from traditional outsourcing to the adoption of an industry utility (see chart below).



The logic of a utility model for trade processing is compelling. It could deliver far-reaching benefits to banks' trading operations across a range of processing functions. Economies of scale and higher productivity could reduce technology and operations processing costs by 20 to 40 percent, or approximately \$100 million to \$300 million annually for the average tier-one institution (see chart below)⁵.

A centralized infrastructure could also help address growing compliance and risk management challenges, while fostering innovation.



A utility model offers far-reaching benefits to trading operations across a range of processing functions.

An evolving model

Industry utilities have played a vital role in modernizing the capital markets since the Centralized Certificate Service was created in 1968 to digitize paper stock certificates. Nonprofit entities like the National Securities Clearing Corporation, Depository Trust Corporation, SWIFT and Euroclear have helped set standards, increase network efficiencies and reduce transaction costs in core capital markets functions.

By definition these approaches support multiple institutions under a common technology platform and operating model; provide outcome-based pricing based on agreed service levels; and enable shared governance.

The recent evolution of the utility model could help fuel the opportunity for a post-trade

processing utility. In recent decades successful commercially driven utility models have transformed key aspects of industry operations, and have proven well-suited to support the industry's diverse business and technology environments, while providing ongoing investment and innovation (see chart below and case studies on page 10).

These hybrid models could prove critical to a post-trade processing utility, which would need to deliver not only standardized core logic but the configurability to support unique requirements of individual banks and their associated lines of business (e.g., asset management, prime brokerage, custody and clearing).

	Shared technology or service capable of serving multiple banks			
CORE	Economic alignment			
	Shared governance			
	UTILITY SPECTRUM			
	STANDARDIZED UTILITY		CONFIGURABLE UTILITY	
	Variable Elements			
SERVICE MODEL	Standard features	Configured	l based on business model	
PRICING MODEL	Standard pricing	Customized ag	Customized agreement (outcome based)	
		Examples		
	DTCC, SWIFT	Examples NYSE, CLEARSTREAM	MARKIT, BROADRIDGE	
TYPICAL SCOPE	DTCC, SWIFT Standardized service requiring no customi- zation; no competing service	Examples NYSE, CLEARSTREAM Largely standardized; competing services drive innovation	MARKIT, BROADRIDGE Undifferentiating functions requiring configuration based on business model and ongoing technology investment/innovation	

CASE STUDIES

Adding Price Transparency to the Derivatives Market

Financial data giant Markit, which launched 12 years ago in a converted barn in Hertfordshire, England with 10 employees and \$17 million in startup capital, illustrates the transformative potential of a commercially driven utility model. As one of its top executives said in April 2008: "Our structure hasn't been tried before: a flexible, commercial and entrepreneurial company that acts like a utility (albeit a fast-moving, nonbureaucratic one)." The model appears to have worked.

In the early 2000s, Markit introduced price transparency to the opaque but exploding credit derivatives market by offering a dozen of the largest dealers an equity stake in the firm in exchange for their trade data, which it averaged and sold back to the market. There was a lack of standard product definitions and Markit was able to aggregate disparate data and definitions from the dealers to create a standard price index. As a standard bearer, it also proved indispensable in crises and was tasked by regulators to lead pricing for hundreds of debt auctions, including the defaults of Lehman Brothers and Greece.

Markit may have acted as a utility in many areas, but its rapid success was driven by its for-profit business model. As a private company, it had the incentive to expand into adjacent areas, such as bond and syndicated loan pricing. It was also agile enough to execute a series of acquisitions. Originally 70 percent owned by dealers, Markit earned hundreds of millions of dollars for it backers, while bringing transparency to a unique market.

Bringing Scale Efficiencies to Shareholder Voting

Over the past two decades a commercially developed shared platform has helped transform the once-fragmented process of communicating with shareholders and voting proxies. Historically, the process was administered individually by hundreds of broker-dealers, each with their own systems, platforms and manual procedures. None of them had the scale and appetite to make investments to standardize processes and provide state-of-the-art systems for communications and voting.

Today, over 80 percent of all U.S. shares are voted through Broadridge's platforms for individual and institutional investors. Through scale efficiencies and integrated, "straight-through" activities with banks and broker-dealers, the platform provides \$1.5 billion in annual cost savings on printing and postage for issuers and their shareholders. The platform has evolved in collaboration with all major industry participant groups, including regulators. The system is regularly audited for vote accuracy, process efficiency and information security. New regulations are implemented quickly and efficiently. Investments are continually made in new systems and processing. Service levels are considered "world-class" by objective measures, and some regulated processing fees declined by 18 percent — others by more — between 2002 and 2010.

As a publicly listed company, Broadridge invests \$100 million per year to develop and further innovate its processing capabilities. Today, 95 percent of all shares are voted digitally and the platform has shrunk the number of physical mailings by more than two-thirds since inception.

3. Critical challenges

Strong arguments in favor of trade processing utilities have been in place for years, but a feasible industry solution has yet to emerge. The industry may now be nearing an inflection point where the benefits of a post-trade processing utility outweigh the hurdles that have undermined efforts in the past. But even as momentum builds, a handful of critical challenges continue to detract from the promise of an industry utility.

1. Alignment over governance, ownership and pricing models

Historically, fierce competition among banks for customer segments, geographies and asset classes made it challenging to get industry players to come to the table to cooperate on shared backoffice concepts. But with heavy ROE pressures and fewer institutions competing head-to-head across markets, the industry is now more open to such discussions. Reaching agreement on governance and an ownership structure for an industry utility, however, remains a significant hurdle among the major institutions.

On the one hand, banks recognize that traditional nonprofit utility models tend to be less efficient than commercially driven models. For example, in the complex regulated world of Europe's depositories, for-profit Central Securities Depositories (CSD) average 60 percent higher workforce productivity than nonprofit CSDs.⁶ On the other hand, many banks still harbor concerns about relinquishing operational control and their ability to influence the direction of a utility under a pure commercially driven model.

Reaching agreement on pricing models, contract terms and service-level agreements can also be challenging. Banks are accustomed to their unique internal cross-charging policies and SLAs, and may struggle to define and adhere to a common practice.



2. Setting viable scope and functional priorities

An industry utility ultimately has the potential to mutualize the vast majority of trade processing functions across geographic markets and asset classes. But establishing a viable scope to start, and determining subsequent phases of expansion, is a difficult challenge with significant implications for the long-term success of a utility.

Deciding on the first areas of attack in developing a utility can be contentious in a bank-led effort and requires not only consensus building but deep insight into risk levels, implementation complexities and cost-saving potential of the functions, geographic markets and asset classes involved.

While global institutions have much to gain from a utility that immediately operates on a global scale, the practical reality of creating one could be complicated by regional differences in market structure. A model that from the outset attempts to deliver the broadest post-trade functionality and reach could prove too complex to deploy in a reasonable time frame.

By the same token, a utility scoped to support too many asset classes — or asset classes that are not well-standardized — could prove too complex to deliver. For example, the processing of over-thecounter (OTC) derivatives is far less standardized compared to equities and fixed income securities. While the emergence of Swap Execution Facilities (SEFs) and Central Counterparties (CCPs) is increasing standardization and adding new efficiencies to these markets, the changes are still in the process of implementation, and overall would require more complex, concerted and timeintensive industry efforts.

3. Identifying viable technology and operating model

The sheer challenge of building technology capable of supporting the complex infrastructures of multiple banks simultaneously has been a persistent hurdle to creating a post-trade utility. Historically, the industry has approached this by either building new platforms from scratch or re-engineering a single bank's existing platform to serve multiple banks. A number of such attempts in the 1990s and 2000s resulted in costly disappointments, with hundreds of millions of dollars and years of effort spent on initiatives that never lived up to their promises (see chart below).

A DIFFICULT TRACK RECORD					
	NORTH AMERICAN INSTITUTION/ OUTSOURCER	GLOBAL INSTITUTION/TEAM OF CONSULTANTS	REGIONAL BROKER-DEALER CONSORTIUM		
SCOPE	 Re-engineering of equity post-trade processing platform Firm to provide IP and knowledge transfer Outsourcer to provide profit sharing as platform sold to other banks 	 Building of global cash equities clearance and settlement platform to replace legacy platforms Internal personnel at the global bank Team of consultants to design and support development 	Develop new post-trade processing platform • Consortium hired personnel externally as well as from participating broker- dealers (BDs)		
TIMING AND INVESTMENTS	Post-crisis; 18 months	Early 2000s; 4+ years and >\$300M	1990s; 10+ years and >\$100M		
KEY CHALLENGES	Lack of North American capital markets expertise and experience in building/implementing an equity post-trade processing plaform	Lack of deep expertise and experience in building/implementing an equity clearance and settlement platform	Divergent business models and lack of governance led to disagreements about architecture and module delivery priorities		
RESULTS	Outsourcing firm unable to deliver required applications and modules for the platform — partnership terminated	System unable to deliver against STP and scalability requirements — project terminated	Consortium unable to deliver fully functioning platform although some modules were adapted by individual BDs		
Source: Broadridge					

Efforts at creating entirely new platforms were confounded by the technological complexities of capital markets systems. Initiatives to reengineer a single bank's proprietary platform to serve multiple banks proved equally challenging. Proprietary systems are inherently geared for the needs of a single bank — and thus require extensive modifications to serve multiple institutions.

Multi-bank post-trade technology has complex requirements. It needs to be configurable to adapt to the different business models of participating banks that each support multiple lines of business (e.g., asset management, prime brokerage, custody and clearing). In addition, it requires a shared workforce with expertise in leveraging the chosen technology and applying it in the context of multiple banks. For example, banks often have unique ways of calculating margins, handling stock loans, managing subledgers and general ledgers, processing batches and developing reporting - and maintain unique data models to support these activities. These differences are inextricably tied not only to internal business processes, but to the client experience, where the costs of disruption are high.

4. Concerns over managing conversion risks

Post-trade processing platforms interface with hundreds of integration points across upstream and downstream applications, many of them proprietary. For each connection point, the risks of a system conversion multiply exponentially, requiring extensive workflow documentation and re-engineering, and scenario-based testing.

Given this complexity, converting onto a posttrade utility platform could involve significant operational risks if not managed properly. A conversion would require extensive technology transformation within each participating bank and the simultaneous operation of new and legacy platforms over lengthy periods of time. A utility platform lacking the ability to readily adapt to a bank's unique requirements might also require a parallel business process transformation, which could introduce further risks of disruption. Without properly phasing conversions — in order to assure adequate support to integrate banks onto the platform in any given time frame — these risks would increase. Gaining alignment on the order in which banks convert onto the platform can also be contentious.

Proprietary systems are geared for the needs of a single bank and require significant modifications to serve multiple institutions. Each firm's system must interface with hundreds of integration points, creating risks of client disruption in conversion.

5. Ability to support multi-bank technology delivery

Implementing technology support capabilities for a post-trade utility poses a similarly complex challenge. Within a single institution, large banks typically employ dedicated technology delivery resources to support discrete platforms, lines of business and geographies. Under a multi-bank post-trade utility, the service delivery team would need to understand the processes and have the experience to handle incident and problem management in a way that restores or improves service for impacted clients without adversely affecting others.

These matters would be complicated by the complex upstream and downstream technology environments unique to each participating bank. Such processes would require ticketing, dashboards and portals that would allow seamless communication between a utility and participants.

6. Support for regulatory reporting and supervision

The unique legal interpretations that underlie each individual bank's regulatory reporting and supervision protocols also create practical challenges for a post-trade utility. For example, in order to implement the Volcker rule banks need make certain interpretations to distinguish their market-making activity from proprietary trading. These interpretations may be common across banks in two-thirds of cases, but unique for the remainder. That means no single institution has full exposure to all regulatory interpretations. Additionally, each bank has its own approach to regulatory reporting, with thousands of possible combinations of reports.

In the case of an industry utility, the processing platform would need to adapt to or reconcile these differences in order to effectively support banks' reporting and supervision. That requires a system with far greater flexibility than any one bank's proprietary platform.

7. Ability to segregate and secure data

One of the chief concerns among banks contemplating the creation of a post-trade processing utility is the ability of the platform to ensure each bank's data is properly secured and segregated.

For security reasons, most banks tend to favor technologies that reside within their own firewalls. But to benefit from the scale economics of a post-trade utility — in which processing and storage costs are shared — banks may need to embrace a software-as-a-service model where their applications sit outside their firewalls and are maintained and secured by another entity. Proprietary bank platforms are not designed for this purpose and are not audited to meet the requirements of other banks.

The challenge also extends to segregation of data. Global banks' proprietary platforms have a proven ability to segregate data across legal entities and regions, but lack the ability to do so across multiple banks. Further complicating matters, data management regulations, which vary by region, may have different implications for each participant. A utility must ensure that individual banks continue to meet their data security requirements and that each bank's data is properly segregated from that of others. That can be particularly complex when leveraging a shared operations workforce.

A utility must meet each participating bank's data-security requirements and ensure data is properly segregated.

4. A Path Forward

Although significant cultural, technological and operational hurdles remain, the path to a global trade processing utility is becoming clearer. To maximize the chances of success within a reasonable time frame, Broadridge believes the industry should take the following approach:

• Initiate with a small group of large-scale anchor tenants under a commercially oriented model.

A utility should organize around globally oriented institutions capable of quickly delivering on the scale necessary to establish a minimum cost per trade. By leveraging a commercially driven model, banks could ensure a higher motivation for ongoing investment and innovation in a utility platform. To address concerns over loss of control, banks could establish a partnership structure with outcome-based service-level agreements that leverage the pricing models and contract terms of the commercial partner.

• Set a scope that is targeted and phased, with an initial focus on highly standardized and liquid markets.

A post-trade utility should ultimately have global multi-asset functionality. But a phased approach — starting with highly standardized, liquid asset classes and markets with simpler and more centralized structure — is critical. The smoothest path would be to begin with North American fixed income, followed by North American equities, followed by global fixed income and global equities, and leading to global multi-asset processing.

• Build from scalable, configurable technology and operations to support multiple banks.

Given the history of failed efforts to re-architect proprietary platforms or build entirely new ones, sound technology selection is critical to the success of an industry post-trade utility. The industry can limit cost overruns and integration risks and significantly reduce time to market by using technology and an operating model proven to deliver high-quality service to multiple institutions and to adapt to banks' discrete business models, regulatory reporting protocols and data management requirements.

• Leverage experienced conversion and delivery resources.

Converting banks onto a common post-trade utility platform and providing ongoing service delivery across multiple institutions is complex and involves significant risks. These risks can be mitigated by leveraging workforces with deep experience in dealing with multiple bank environments and specialization in post-trade systems integration and technology delivery.

The above approach differs in many ways from others that have been considered. For example, a strategy of re-engineering a single bank's posttrade processing platform to support multiple banks would involve significant investment and risk. Re-architecting and building such a platform in the U.S. alone could take three to five years using existing technologies and conversion processes. Converting banks onto it could take up to two years for each asset class. Conversions would also need to be staggered to minimize the risk of client disruption and ensure appropriate staffing of conversion experts.

That means operationalizing a U.S. equities and fixed income post-trade utility on a single bank's proprietary platform to support five or six institutions would require more than \$1 billion of investment and five to ten years, or more, to deploy. Nearly two-thirds of the investment would be driven by conversion of clients onto the new platform. Recovery of these investments would take significantly longer.

But there are more viable alternatives. By leveraging a proven multi-bank platform particularly where a large existing swath of the industry is active — banks would nearly halve the investment, time and risks associated with building a post-trade utility.⁷

FOUR CENTRAL BENEFITS

By navigating this path, a utility model could unlock significant economies of scale, improve compliance and risk mitigation, and help drive innovation and productivity. There are four central benefits for banks, which could be accelerated with this approach.



1. Economies of scale

By focusing on highly standardized and liquid products — equities, fixed income and options — where volumes are greatest, banks stand to achieve the greatest scale benefits. By pooling large trade processing volumes across a fixed technology cost base, the cost per trade shrinks significantly. Traditionally, such scale benefits were more critical to tier-two institutions, where the cost per trade is about three times higher than for higher-volume bulge bracket firms. But an industry utility would enable banks of all sizes to move to a new trade processing cost curve, and achieve 20 percent to 40 percent lower processing costs compared to a proprietary technology platform based on the same volumes (see chart below).

Banks need to align their costs with revenues (i.e., commissions or spreads), which are frequently tied to trade volumes. Unlike proprietary technology solutions, which largely comprise fixed costs, a utility could offer additional scale benefits through variable pricing aligned to trading volumes. A utility that ultimately operates on a global scale would also help global banks bridge duplicative processing infrastructure across regions and lines of business.



2. Higher productivity and innovation

By structuring a trade processing utility as a managed service with integrated operations and technology, banks could realize higher operational productivity. With pooled talent, a utility would bring greater labor specialization and platform expertise. Productivity tools would enable better capacity planning, so workforces could "load balance" processing volumes across participating banks. By linking technology and operational performance, a utility would enable an outcomesbased model that better aligns costs to volumes for participants.

With accountability to process for multiple institutions, a trade processing utility could become a center for industry best practices by centralizing investments in leading technologies, improving process automation and applying data analytics to increase processing efficiencies. This would not only reduce the total cost of ownership for individual firms, but provide a stable platform for the industry's top talent to drive innovation and create new efficiencies.

A utility could streamline compliance with regulations that are projected to cost the industry over \$5 billion to implement.

3. Streamlined compliance

A trade processing utility could also streamline compliance by dramatically lowering the cost of regulatory and market structure changes through mutualization. This is increasingly important as new rules and regulations that impact trade processing come into effect.

For example, market structure changes, such as TARGET2-Securities and the U.S.'s upcoming T+2 initiative to shorten the settlement cycle, will require investment in platform modifications. New transaction and risk reporting requirements, such as the Consolidated Audit Trail (CAT) and Basel's BCBS 239 regulation, are setting challenging standards for timely and accurate data aggregation and reporting. And the pending Comprehensive Automated Risk Data System (CARDS) rule, if implemented, would add to the complexity of data reporting requirements. Taken together, these regulations are projected to cost the industry over \$5 billion to implement.⁸

Other regulations, like the Foreign Account Tax Compliance Act (FATCA) — which require firms to capture more granular data for customer onboarding to comply with tax withholding — will add significantly to these costs. On a shared platform, compliance with these rules would be faster and less costly for each individual firm because any changes would apply universally. A utility could also help streamline reporting and enable the creation of an industry standard that can be leveraged by banks and regulators.

4. Network benefits

The "network effects" of an industry post-trade utility would bring considerable value to all participants, as more and more banks join. Perhaps the most important benefit would be in mitigating risk.

For example, as more and more trading counterparties join the platform, a feedback loop could be created, enabling more sophisticated pattern analysis on costly trade failures based on data from both sides of the trade. This would help reduce operational risk and improve the client experience. It would also increase operating efficiencies and help reduce capital charges and penalties.

Crucially, it would make recovery and resolution in the event of a financial crisis easier for all participants as each new institution joined

Recovery and resolution would become easier for all participants in a utility as each new institution joined. the utility. The Dodd-Frank Act in the U.S., for instance, calls on banks to formulate "living wills" and to demonstrate how troubled assets can be quickly ring-fenced in the time of crisis. The ability to quickly identify and segregate trading and portfolio assets and shift their custody to safer havens is crucial to such efforts.

Shared post-trade processing platforms have already proven their ability to simplify this (see case study below). Indeed, the most recent "living wills" include specific plans for some banks to leverage their trade-processing provider's platform to quickly transfer assets to a preidentified institution that uses the same platform. Such benefits would come in even greater scale on an industry post-trade utility, which would enable seamless movement of assets across a larger number of institutions.

CASE STUDY

Streamlining Recovery and Resolution

The advantage that an industry post-trade processing utility could provide for recovery and resolution was made evident during the 2008 Lehman Brothers collapse, when a shared-service platform proved critical in helping insulate relatively healthy assets worth billions of dollars from bankruptcy proceedings. In mid-September of that year Lehman was teetering on the edge of bankruptcy and had only days to isolate its asset management unit holdings from its failing brokerage unit.

For years, Lehman's equity securities were being processed on Broadridge's post-trade platform, which was also used by dozens of other institutions. As the bankruptcy unfolded, the platform's common data and infrastructure enabled the two firms to work together quickly to identify asset management positions and segregate them from brokerage holdings. Because the platform was designed to support multiple entities, swift conversion was possible, ensuring continued trading amid bankruptcy of the original parent.

A platform conversion and asset recovery, which could have taken a year or more to complete had the assets been processed on a proprietary platform, were completed in just three trading days. As a result, Lehman's former asset management unit, Neuberger Berman, was able to continue operating while its parent company became insolvent, and it remains among the world's leading asset management firms today. The conversion also enabled the transfer of Lehman's brokerage assets to Barclays.

Conclusion

The need for aggressive cost reduction in the back office and the potential value of an industry post-trade processing utility are well-understood by the world's major banks. Given the growing ROE pressures they face, the industry may be at an inflection point where the potential benefits of a utility can overcome the challenges that have undermined past efforts at such solutions. But avoiding previous pitfalls and charting a quick and effective path will require a tightly scoped and phased approach that leverages configurable multi-bank technology and operations, and experienced conversion and delivery resources. Banks face a mounting wave of regulatory and market structure changes that will drive up their technology and operations costs over the next five years. Today they have a narrow window of opportunity to confront their outdated cost structures and adopt a more sustainable operating model. By navigating past hurdles to creating a post-trade utility and focusing on a viable path forward, the industry could lift profitability and future-proof trade processing costs for many years to come.

- 1 Trade processing functions include core post-trade and related functions (clearance and settlement, custody, financing, books and records, reference data, reconciliations, corporate actions, client life cycle management, tax and regulatory reporting) and trade expenses linked to executing brokers. Highly standardized asset classes defined as equities and fixed income, excl. OTC derivatives.
- 2 Broadridge analysis based on internal models and Morgan Stanley/Oliver Wyman data. Savings estimate includes: 1) 20-40% reduction of \$6-9B in annual spending on core post-trade and related functions within highly standardized asset classes; plus, 8-10% reduction of \$5-6.5B in annual industry spending on trade expenses.
- 3 The Wall Street Journal, February 19, 2015, citing Coalition Ltd.
- 4 Broadridge analysis based on Wholesale and Investment Banking Outlook, Morgan Stanley and Oliver Wyman, 2014. Of the \$17B-\$24B trade processing spend, trade expenses linked to executing brokers total \$5-6.5B annually.
- 5 Broadridge analysis based on internal models and 2014 Morgan Stanley/Oliver Wyman data. Includes 20-40 percent run rate savings on cost base for post-trade, reference data, reconciliations, corporate actions, client lifecycle management, tax reporting and regulatory reporting; and ~8-10 percent of trade expense linked to executing brokers.
- 6 Broadridge analysis of European Central Securities Depositories Association membership data and individual CSDs. Nonprofit CSDs defined as those with more than 50 percent ownership by state, central bank and users. CSDs with end-investor records excluded.
- 7 Broadridge estimates depend on the level of configurability of the platform, and whether newer technologies and deployment models can be used to enable shorter and more closely paralleled conversions.
- 8 Broadridge analysis of data from SIFMA, SEC's National Market System (NMS) Plan Governing CAT, BCG/DTCC and Celent.

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About Broadridge

Broadridge is the leading provider of investor communications, technologydriven solutions, and data and analytics for wealth management, asset management and capital markets firms. We help clients drive operational excellence to manage risk, accelerate growth and deliver real business value. Our technology-driven solutions power the entire investment lifecycle, enabling our clients to successfully manage the complexity and operational requirements of today's capital markets. Broadridge is at the forefront of multi-channel communications, strengthening our clients' capabilities to communicate with their clients and investors and meet regulatory requirements.

Broadridge provides trade processing solutions to financial institutions globally, including:

- Managed services to 27 clients on a multi-tenant technology platform supported by a shared pool of capital markets operations professionals
- Equity trade processing for six of the 10 largest global investment banks, including billions of U.S. institutional trades each year
- Fixed income and repo processing for 16 of the 22 primary dealers, including over 60 percent of the daily trades
- Eurasian securities processing, through Accenture Post-Trade Processing, a strategic collaboration between Accenture and Broadridge, with connectivity to more than 70 countries
- Global horizontal capabilities including reconciliations, corporate actions, exchange fee and commission management, reference data, and tax
- Deep technology and operational transformation expertise, with a record of converting more than 60 institutions to its post-trade processing platforms



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