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HOW WE REACHED OUR CONCLUSIONS
OVERVIEW

Long before the world was engulfed in the COVID-19 pandemic, cutting trading costs was already squarely in the crosshairs of banks and broker-dealers trying to wring inefficiencies from every part of their operations.

According to an April 2020 Morgan Stanley/Oliver Wyman research report on how the industry can successfully weather this global pandemic and the resulting recession, it states that banks and broker-dealers who continue to be competitive and profitable will be the ones who are “quantifying the different levers (they) can pull to transform their existing cost base.” Two key levers the report identifies are: 1) “invest in common industry utilities to contain costs;” and 2) “more room to automate (i.e. post-trade processing), consolidate vendors and outsourcing opportunities.”

Imagining a better future is one thing. Making it happen is quite another—especially when IT resources are limited and internal competition over them is fierce. In an increasingly complex trade environment, rife with cost pressures and regulatory restrictions, there is urgency to embrace post-trade automation opportunities and eliminate associated costs.

DTCC’s Institutional Trade Processing (ITP) provides an integrated post-trade infrastructure that eliminates redundancies and manual processing across asset classes.

*Steering Through the Next Cycle,* April 2020, Morgan Stanley Research/Oliver Wyman
Few technology investments offer the same degree of automation, risk reduction and savings. ITP offers the opportunity to truly automate the post-trade lifecycle, enabling no-touch processing from trade agreement through to settlement finality.

We surveyed nine global broker-dealers to baseline their operating costs and estimate efficiency and cost savings potential from implementing the range of ITP solutions. (See the complete study methodology in “How we reached our conclusions” section.) In addition, deployment of a no-touch processing workflow can also help to eliminate or minimize the complexity of middle office platforms, SSI databases, reporting and client portals, among other cost centers.

For large global broker-dealers, who typically spend in the range of $150 - 175 million on post-trade services, implementing a no-touch processing workflow can reduce headcount, repair charges, technology expenses and claims and fees.

For mid-sized and smaller broker-dealers, implementing a no-touch workflow with ITP solutions provides them access to a high-level of automation and capabilities that typically would not be affordable or possible to replicate with their own internal resources. The savings realized by these smaller broker-dealers can enable them to achieve scale in their operations and potentially reduce their vulnerability to spikes in volume.

Adoption of this end-to-end automation helps firms to solidify their operational flow and avoid penalties such as Treasury Market Practice Group (TMPG) fail charges, Central Securities Depositories Regulation (CSDR) Settlement Discipline Regime fines and buy-ins caused by settlement inefficiencies.

• CTM WITH AUTO AFFIRMATION: Enables the affirmation of the broker TradeSuite confirmation once trades are match agreed in CTM, resulting in a very high trade affirmation percentage and low numbers of DK’ed trades for DTC products.

• CTM WITH AKAS: Utilizing CTM with ALERT Key Auto Select (AKAS) ensures the automated selection of correct SSIs for the investment manager including settlement preference and enables a Place of Settlement (PSET) match ensuring both sides know where the trade will settle.

With AKAS, trade counterparties no longer run the risk of overly long settlement cycles caused by misinformation from one or both parties to a trade regarding SSIs — one of the key enablers to achieving a no-touch workflow.

• DTCC EXCEPTION MANAGER: With the Exception Manager platform, we’ve built a solution that gives clients the ability to publish, manage and communicate on exceptions throughout the trade lifecycle based on accurate source data, aligning to operational and regulatory requirements. By centralizing and standardizing exception processing across a common shared platform and providing detailed post-trade analytics, we enable faster resolution and deliver a significant reduction in the number of future exceptions.

A GLIMPSE at what’s ahead

ITP is always focused on the future, continuously exploring and developing cutting-edge post-trade automation solutions.

Whether it’s predictive analytics, broker-to-broker netting, enhanced inter-company reconciliation with CTM or enhanced settlements management capabilities, we are in close consultation with our clients and the industry to develop future solutions that will bring the most value.
THE BIG SEVEN:
Key areas of impact

Cost savings through automation are typically realized across multiple operational areas, which is why it is difficult to see these savings in aggregate. Trade support, settlements, reference data, agent bank fees, asset servicing, financing costs and technology are all positively impacted by implementing an optimal no-touch workflow. Other benefits include reduction in repair charges, claims, processing costs, long inventory financing, increased volume insensitivity and reduction in technology complexity.

1. SSI REFERENCE DATA
Lifting the burden

SSI data maintenance is a major undertaking usually involving a combination of automated updates of new SSIs from ALERT and manually updating SSIs not handled by ALERT. ITP provides a range of options to help facilitate these efforts. The Broker SSI Lift Out Service transfers the burden from the broker to ITP. Investment managers not using ALERT can have their settlement instructions added for broker use through the Automating Standing Settlement Instructions Together (ASSIsT) program at no cost to them, helping to automate formerly manual clients for whom a full subscription has been a challenge. The quality and timeliness of the investment manager SSI data is further enhanced through the Global Custodian Direct service. Utilization results in more accurate SSI data in ALERT, reducing the amount of repair by the brokers. All of these measures help reduce the workload required and improve data quality significantly.

SSI REFERENCE DATA SAVINGS

<table>
<thead>
<tr>
<th>Spend</th>
<th>$2m - $6m range ($4m average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Savings*</td>
<td>$1.5m</td>
</tr>
<tr>
<td>Approximate reductions by area:</td>
<td>SSI Maintenance 38%</td>
</tr>
</tbody>
</table>

TRADE SUPPORT (continued)

For prime brokers, where middle offices are focused on responding to and addressing client queries on a range of items—from unmatched and failed trades to payments and daily activity—I TP’s no-touch processing workflow will reduce both exceptions and aid in resolutions. Hedge fund trades can be matched in CTM on all economics then routed real time to the prime brokers. AKAS can be used to add a settlement preference to allow the hedge fund to PSET match that preference with their brokers. By providing prime brokers with visibility to unmatched trades—something they do not have today—our no-touch processing workflow improves trade processing and exception resolution.

PRIME BROKER SAVINGS

<table>
<thead>
<tr>
<th>Spend</th>
<th>$6m - $12m range ($9m average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Savings*</td>
<td>$1.5m</td>
</tr>
<tr>
<td>Approximate reductions by area:</td>
<td>Client Queries 18%</td>
</tr>
<tr>
<td></td>
<td>Trade File Processing &amp; Exception Resolution 15%</td>
</tr>
<tr>
<td></td>
<td>Fail &amp; DK Resolution 17%</td>
</tr>
</tbody>
</table>

3. SETTLEMENTS
Lightening the load

ITP’s no-touch processing vision aims to drive down the costly stages of manual work—pre-settlement, receive/deliver and fails management. Initially, institutional and prime service settlements will realize the greatest impact; however, in the future broker-to-broker trading will benefit as well from matching, netting and reporting efficiencies. Implementation of a no-touch processing workflow should virtually eliminate pre-settlement exceptions, while DTCC Exception Manager will support the resolution of any exceptions that remain outstanding. Together, they form a powerful combination creating cost savings of 35%.

SETTLEMENTS SAVINGS

<table>
<thead>
<tr>
<th>Spend</th>
<th>$18m - $63m range ($34m average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Savings*</td>
<td>$10.8m</td>
</tr>
<tr>
<td>Approximate reductions by area:</td>
<td>Pre-Settlement Matching 35%</td>
</tr>
<tr>
<td></td>
<td>Receive and Deliver 35%</td>
</tr>
<tr>
<td></td>
<td>Fails Management 35%</td>
</tr>
</tbody>
</table>

TRADE SUPPORT

Reducing time on client queries and exceptions

Trade support covers the work involved in processing institutional trades (equity and fixed income) in all global locations, including:

- Regional booking centers, e.g. New York, London, Tokyo, Hong Kong
- Smaller local offices, e.g. Sydney, Toronto, Mexico City

The use of CTM with ALERT Key Auto Select (AKAS) both domestically and internationally, DTCC Exception Manager and high-quality SSIs provided through a GC Direct workflow drives a material reduction in trade exceptions and settlement failures that the trade support teams need to address. Further, use of CTM with its high same-day match rates and root-cause data, will enable continued improvement in trade allocation matching. In fact, our analysis of nine leading global broker-dealers found that leveraging these capabilities could reduce trade support staffing costs by approximately 15-20%.

TRADE SUPPORT SAVINGS

<table>
<thead>
<tr>
<th>Spend</th>
<th>$25m - $50m range ($37.5m average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Savings*</td>
<td>$7.0m</td>
</tr>
<tr>
<td>Approximate reductions by area:</td>
<td>Allocation Processing/Matching 7%</td>
</tr>
<tr>
<td></td>
<td>Client Queries (fails, exceptions, SSIs) 18%</td>
</tr>
</tbody>
</table>
4. AGENT BANK FEES

Agent bank repair charges, Day and Night Delivery Orders (DDO and NDO) charges, claims expenses, buy-ins and sell-outs, plus intercompany settlements and Central Securities Depository (CSD) charges can really add up—rivaling the total spending on staff. Addressing these issues is also painstaking work. No-touch processing can help alleviate the hardship by eliminating fails and streamlining workflows. Fewer fails, together with repairing SSIs prior to settlement, leads to enhanced exception handling. By highlighting trade date and pre-settlement exceptions, use of DTCC Exception Manager increases the likelihood that any exceptions will be resolved before they cause a fail.

AGENT BANK SAVINGS

<table>
<thead>
<tr>
<th>Spend</th>
<th>$6m - $12m range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Savings*</td>
<td>$2.3m</td>
</tr>
</tbody>
</table>

Approximate reductions by area:

- Agent Bank Repair Charges: 35%
- Avoidable DDO/NDO Charges: 40%
- Claims & Other: 18%

6. FINANCING

Relieving the pain of interest payments

Brokers incur substantial interest expenses financing long inventory, especially for deliveries that fail. The foremost reason for broker deliveries failing is due to lack of instructions from the investment manager to their custodian. With ITP’s no-touch processing workflow, custodians will receive trade instructions with accurate SSIs automatically on trade date. Consequently, brokers will benefit from a dramatic reduction in DK’ed deliveries resulting in timely payment on more trades, thereby reducing their cost of financing. Based on an analysis of DTC activity by nine large brokers over 12 months, the average financing savings was over $4 million annually per broker.

FINANCING SAVINGS

<table>
<thead>
<tr>
<th>Inventory Reduction</th>
<th>$120m - $220m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings on 1 day fails outstanding</td>
<td>$3m - $5m</td>
</tr>
<tr>
<td>Savings on 2 day fails outstanding</td>
<td>$6m - $10m</td>
</tr>
</tbody>
</table>

*Note: The savings indicated are estimates based on a survey of a select group of global broker-dealers across their cash securities businesses and contain certain assumptions about baseline operating costs and potential efficiencies created from the adoption of existing ITP services.

5. ASSET SERVICING

Eliminating fails, streamlining workflow

While the overall benefits of implementing a no-touch processing workflow are less significant for asset servicing, fails on positions that have upcoming corporate action events create significant amounts of work and risk. Reducing the number of fails simplifies the payment and collection of interest and dividends. The calculation of entitled positions is easier, and the number of counterparty follow-ups on election processing also diminishes.

ASSET SERVICING SAVINGS

<table>
<thead>
<tr>
<th>Spend</th>
<th>$20m - $40m range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Savings*</td>
<td>$2m</td>
</tr>
</tbody>
</table>

Approximate reductions by area:

- Interest & Dividends: 7%
- Corporate Action Processing: 7%

7. TECHNOLOGY EXPENSES

A ray of hope

Technological transformation looms large across the entire financial services landscape, its tremendous cost casting a long shadow. Increasingly, firms of all types are facing the dilemma of whether to build or buy their solutions or embrace utilities. Driven by the need to scale, the complexities of integration and ongoing burden of maintenance, the pendulum is swinging in the direction of utilities wherever they are available. ITP’s offerings enable brokers to replace existing in-house platforms or, at the very least, reduce ongoing investment in them. With the retirement and consolidation of several ITP platforms, along with centralizing SSI data, ITP is helping reduce the need for proprietary platforms, tools and portals, thereby decreasing brokers’ overall tech spend.

TECHNOLOGY SAVINGS

<table>
<thead>
<tr>
<th>Spend</th>
<th>$12m - $20m range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Savings*</td>
<td>$5.4m</td>
</tr>
</tbody>
</table>

Approximate reductions by area:

- Middle Office Local Matching Platforms: 35%
- Client portal, exception management and reporting: 35%
- Message Translation Layer/Service: 35%
- SSI Databases: 35%
SEEING THE BIG PICTURE

Mutualization brings tremendous value. Sharing the cost of utilitarian functions means that broker-dealers can focus their resources on the parts of their business that create value. While cutting costs is a significant and concrete driver towards the adoption of a no-touch processing workflow, there are also long-term benefits to consider. Ultimately, the scale and efficiency produced is far greater than what can be achieved by any single player. Also, the modest investment enables the spreading of costs across the entire value chain.

When viewed across the entire broker-dealer enterprise, it’s easy to see how the savings add up, making the case for no-touch processing clear.

HOW WE REACHED OUR CONCLUSIONS

To produce this analysis, we surveyed a group of global broker-dealers on a range of costs across their cash securities operations.

Asset classes covered included equities, bonds (plus their prime brokerage) and repos. We did not survey OTC derivatives, listed derivatives, FX and loans.

To estimate savings, we assumed adoption of ITP services—like DTCC Exception Manager and CTM—at a rate of 70% by the broker-dealers’ institutional and hedge fund clients. Then we ranked the impact on resourcing and related expenses as high (50%), medium (25%) or low (10%).

The bulk of the savings were driven by existing ITP services.

The assumptions and results were reviewed by individual broker-dealers and a group representing the global sell-side community.

GROUPS SURVEYED
- Middle Office
- Prime Brokerage
- Settlements
- Reference Data
- Asset Servicing
- Related Technology

ITP SOLUTIONS USED BY SURVEYED GROUPS
- CTM
- ALERT Key Auto Select (AKAS)
- DTCC Exception Manager
- ALERT
- ALERT Global Custodian Direct & Prime Broker Services

Discover the Institutional Trade Processing story and learn more about how the sell-side can benefit.