

# Reaping strategic data benefits from mandatory trade reporting projects



Due to differing data standards and protocols across jurisdictions, interpretation is key when it comes to implementing the regulatory directives formulated at the Pittsburgh G20 summit.

Ready for next

The core principles of the G20 conclusions were meant to increase transparency and reduce counterparty risk around OTC Derivatives. However, data and processing fragmentation presents a huge challenge to effective compliance.

This paper discusses the challenges of reporting cross asset trades, and analyses the difficulties that can occur due to multiple asset classes being in use, 'unclean' division between product silos, or taxonomies being difficult to map, all of which can result from bad communication due to lack of familiarity with reporting methodology or data being stored in different generations on different systems. The key is to face an on-going series of storms rather than a single 'tsunami' of regulation. Many are now realising that a more strategic approach must be taken, so the paper looks at the challenges around reporting cross asset trades. Front-ending challenges rather than cobbling together a solution in order to meet the deadlines can reap rewards in the long term, as can sourcing accurate and comprehensive data from your trading systems, mapping data to the regulatory format, and data enrichment to fill in gaps which stem from unclean data storage.

## HOW DID THIS DATA CHALLENGE EVOLVE?

This is not yet another paper on the implications of Markets in Financial Instruments Directive II (MiFID II), Dodd Frank Act (DFA), European Market Infrastructure Regulation (EMIR) and so on. Readers are no doubt already fully aware of those challenges; however, some reminder of context is appropriate.

Many of the current regulatory directives stem from the Pittsburgh G20 summit held in September 2009, following the confusion and collapse in the market in 2008. The initial core principles of the G20 conclusions were meant to increase transparency and to reduce counterparty risk around over the counter (OTC) derivatives. These goals have been translated into global initiatives such as mandatory clearing of OTC derivatives, increased use of collateral, and trade and transaction reporting.

The actual regulations, however, as implemented by each national or regional regulator are based on their interpretation of the founding principles. In some cases, more than one regulator affects a single jurisdiction. In the USA, the legislation is being interpreted by two national regulators – the Securities Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC). In Europe, the individual national regulators have a say, as well as the European Securities and Markets Authority (ESMA). With global organisations also

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## ABOUT THE AUTHOR



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leader in post-trade control solutions, including harmonisation of data and regulatory trade and transaction reporting. Before co-founding Message Automation in 2003, Mr Daly was an executive director of Financial Objects plc, responsible for the 100-strong IBIS Division, which had more than 70 international banking customers and offices in New York, Singapore, Luxembourg and Prague. His previous experience includes seven years in corporate banking in the USA and Europe, and four years consulting and programme management in Central/Eastern Europe and the Far East.



potentially needing to report to Hong Kong, Singapore, Japan, Switzerland, Israel etc. and each National Conduct Authority (NCA), Approved Reporting Mechanism (ARM), Approved Publication Arrangement (APA) and trade repository adopting different data standards and protocols, the data and processing fragmentation is a huge challenge to effective compliance.

In Europe in particular, the regulators have gone further with the ‘best execution’ principles of MiFID and MiFID II adding to the core control principles of EMIR, which itself has already had a number of updates including EMIR L2 and this year’s major revision. By 2019, we also expect ESMA to introduce Securities Financing Transaction Regulation (SFTR) to add similar controls to ‘shadow banking’ activity. It is clear that financial institutions (particularly those with any global presence or even just overseas counterparties), face an ongoing series of intensive storms rather than a single ‘tsunami’ of regulation as suggested by some.

The major issue for many banks and buy-side institutions is that for all their efforts, the impact of increased regulations has further fragmented the market, with no real benefits being accrued. In particular, the firms who have taken a siloed approach to each new regulation now have major maintenance challenges, greater difficulty in ensuring the right data are with the right regulators, and all too often a lot of highly sensitive

data are being released off their premises that is not actually required for compliance.

Many are now realising that a more strategic approach must be taken, and in Europe many institutions are planning to use MiFID II as the start of this process. In this paper, we look at how Message Automation has been supporting clients taking this direction since the outset of DFA and EMIR.

## THE DATA CHALLENGE IN MORE DETAIL

The concept of near real-time reporting of cross-asset trades poses huge challenges to almost all market participants of any size. Even the T+1 reporting mandated under the EMIR and MiFID II transaction reporting regimes presents some big issues and it is worthwhile exploring some of these issues in a little more depth.

### Data enrichment

The immediate challenge is obvious – sourcing the data from your trading systems and ensuring the accuracy and completeness of the data submitted to the trade repositories, ARMs or APAs.

There is also another obvious (and non-trivial) requirement for mapping of source formats to those required by, for example, the Depository Trust & Clearing Corporation’s (DTCC) Global Trade Repository or REGIS- TR. But in addition, it is highly likely that not all of

the data required are freely available from a single source system. Hence enrichment of the data will be required.

Examples of where data are held in diverse places might be counterparty static, HR systems, valuations and collateral details, although all of these are required as part of the reporting process. The technical processes for enrichment are similar to many previous projects, but there is a significant business analysis phase to identify the gaps and from where to fill them.

### Multiple asset classes

The reporting obligations are framed such that they cover the range of asset classes: interest rates derivatives; credit derivatives; and various flavours of equities, bonds, commodities and foreign exchange.

The challenge in this context is two-fold: resourcing across such a range of products, and typically across asset class specific 'silos'. The majority of organisations have more than one primary trading system in which these trades are captured and processed.

### Cross silo products

In the typical siloed model, where multiple asset classes are booked in different primary systems, or different versions of the same system, often there are some trades that do not conform to an organisation's overall high level data model. Examples might be an associated foreign exchange deal booked in a commodities system or a rates application. The vagaries of how trading of products are divided between silos is not always 'clean', so some

products might have to be mapped to the mandated regulatory format from more than one source system.

### Product taxonomies

Every organisation has at least one preexisting product taxonomy and frequently one per business application. There may be historical mapping tables between front office product booking types and back office, or front office and risk. Sometimes these translations are subsumed in archaic interfaces or are maintained as a simplistic many to one relationship table, as a best effort to cope with the constraints of legacy downstream systems.

Unfortunately the externally mandated product taxonomy for each reporting regime (based on the International Swaps and Derivatives Association (ISDA) taxonomy for example), is highly unlikely to map conveniently to any of the organisation's existing product hierarchies. It may not be a straightforward one to one or many to one, so even determining the correct Unified Product Identifier (UPI) becomes a challenge. In addition, different regulators may mandate different product identifiers.

### Messaging and connectivity

In some organisations and in some areas, there is a lack of familiarity with the reporting methodology enforced by the earliest to market trade repository – DTCC's Global Trade Repository (GTR). These required data are to be transmitted using the Financial products Markup Language (FpML) standard. While ideal for this purpose in that the standard covered the full economic details of all the necessary instruments, it is unnecessarily complex for those new to its quirks.

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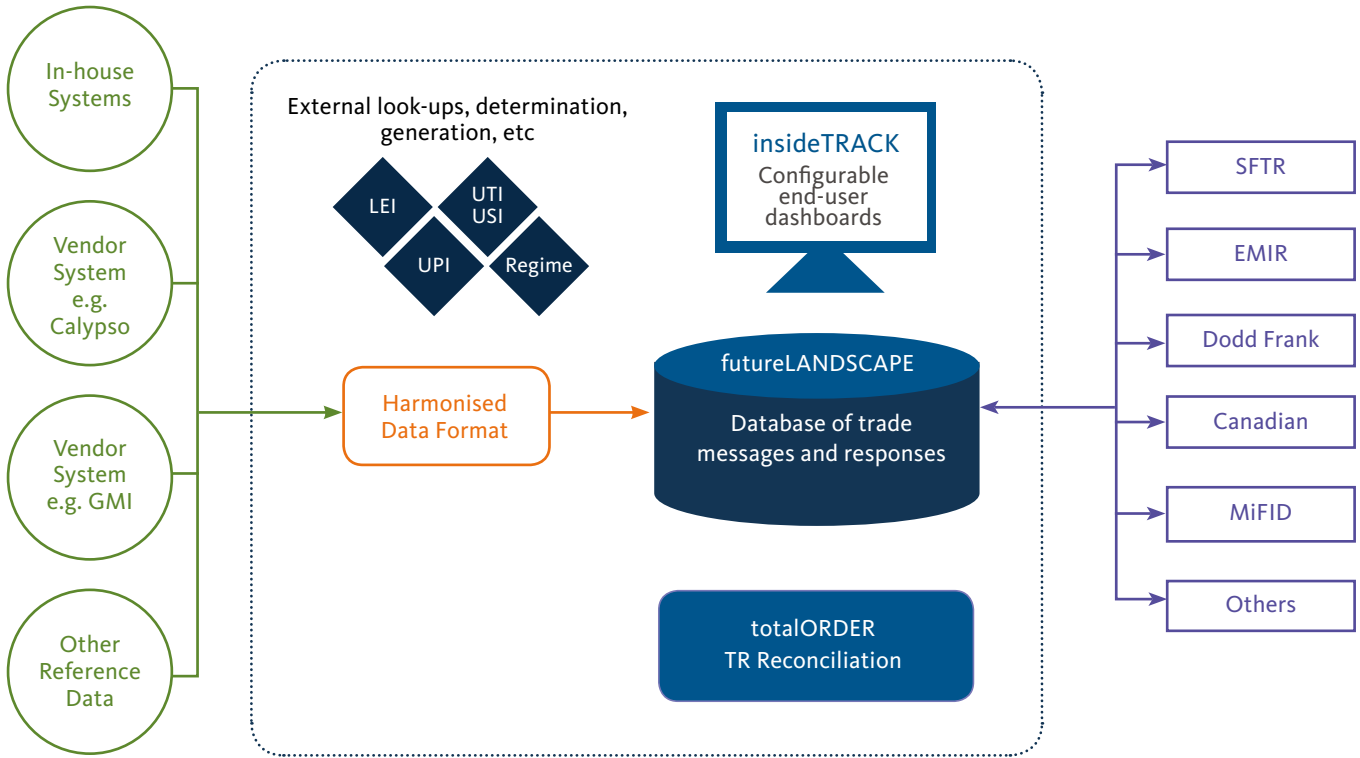
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## RELATED CHALLENGES

### Nexus determination

Clearly many organisations may be affected by more than one jurisdiction. It is quite probable that a single trade should be reported under more than one regime. Take an example: a US bank trades an equity option with a European asset manager, but where the underlier is an Australian equity. This trade, in theory, should be reported multiple times – under CFTC, ESMA and

**FIGURE 1: TRADE REPORTING**



Australian Securities and Investments Commission (ASIC) regulations. Regime determination in global markets is not simple; added complexity comes from each of the G20 regulators having similar but not identical approaches to implementing the principles. Additionally, the regulations across the globe are still evolving and will continue to do so as the market changes *ad infinitum*.

**Operational impact**

Although not all regulators are pushing for intra-day or near-time reporting, there are still complexities over reporting party determination. In addition, as with past experience, even when straight through processing is fully implemented such as in settlements, breaks are still occurring.

It is hoped that in ‘mature’ jurisdictions, as with settlements, the current level of exceptions experienced is a small percentage, but with each new jurisdiction or update of rules there will be more exceptions to handle. The process will not be 100 per cent perfect, out of the

box on day one; rather it will be an iterative process of improving straight-through processing (STP) rates and reducing breaks.

Even if we believe that 100 per cent reporting STP is achievable, unfortunately your counterparties cannot be totally relied on as having had equivalent success. Overall, it would be imprudent not to assume at least some manual overhead from trade and transaction reporting, and take steps to automate the management of these issues. We have always believed that it is better to plan for this eventuality (stable door), rather than try to remediate a large population of existing exceptions (bolted horse).

**Reconciliations**

Fundamentally, the move to central clearing and trade and transaction reporting creates at least two new representations of your trade population. Depending on extra-territoriality, the same trade may be represented in more than one trade repository/ARM.

The main issue to grapple with is that the external copy is the truth. In a bilateral world, you win some, you lose some on breaks – the law of averages implies you would be correct on half of your disagreements with counterparties (after an adjustment for relative competence). When disagreeing with a clearing house or NCA, you are simply wrong. Hence performing a population reconciliation between your book and records and each of your central (clearing) counterparties (CCPs) and NCAs is essential.

With trade and transaction reporting, the need for reconciliation is crucial. You are signing off to the regulator to state the population in the trade repository is accurate. And yet, some of the trades may not even have been reported by you, but by your counterparty or a clearing house. The added complexities of continuation reporting, valuations, multiple jurisdictions and competing repositories and so on, provide huge scope for errors and omissions. As well as operational best practice, there is also mandated portfolio reconciliation to cope with. The regulations state the frequency of reconciliation required according to the size of a counterparty portfolio. This does prompt the question, if you can reconcile something weekly, why would you not do it daily? Unless, of course, there is too much manual intervention required. If this is the case, the process needs fixing. The EMIR regulations also mandate reconciliations so, again, avoiding Dodd Frank does not get you out of jail.

## STRATEGIC OPPORTUNITIES

So, all bad news so far. Poorly defined requirements, project risks, pressurised deadlines, regulatory imperatives and a lack of skilled resources does not make for good reading. Surely there has to be a silver lining to this cloud? We believe so and have worked with a number of clients over the last few years to demonstrate how.

### Data warehouse by stealth?

Many organisations have spotted that describing all trades in an externally recognised fashion, across multiple asset classes, is non-trivial and not easily achieved. But that is exactly what is being asked of the industry in order to report trades and subsequent valuations, collateral implications and so on.



### Re-use of consistent product taxonomy

For perhaps the first time, all your trades across siloes now need to be classified according to a single product hierarchy. The taxonomy may not be exactly to your liking, but it is consistent and clearly understood by external parties. There are clear opportunities to use this in better risk management, management reporting and front office to back off ice (FOBO) reconciliations. It should also make future migrations and system replacements easier.

### Client master database

Again, trade reporting forces the organisation to have a consistent view of counterparty data. Work probably needs to be done for domicile and almost certainly reporting classification; swap dealer and major swap participant are new concepts. It may not yet use the mandatory legal entity identifiers (LEI), although MiFID II is mandating this.

Some organisations already have a master database so this can be extended to cover the new requirements. If this does not exist, then now is the time to create one or face a major issue with every new or updated regulation.

### Single platform for cleared and bilateral OTC provides for consistent customer view

The changes implemented for trade and transaction reporting, with a little imagination, provide opportunities for improving the overall customer experience. Whether this is in static reporting or in a real-time customer portal, consolidating the underlying trades in a single place with a common representation should enable easier presentation.

When you add in to the mix that EMIR is forcing reporting of exchange traded derivatives, this becomes even more compelling – for example commodities OTC trades and commodities futures trades will all be available in one place in one format.

### Prepare for the new collateral challenges

The subject of collateral changes is too broad to tackle in detail here, but the same opportunities arise. To achieve the holy grails of cross asset class margining and efficient collateral optimisation, a pre-requisite is the simple ability to provide a single view.

Breaking down silos is notoriously difficult (technically and politically). But the work done for trade reporting will have done much of the work required, mapping diverse formats from multiple systems across asset class into a consistent view.

There will be revenue opportunities arising from collateral transformation and arbitrage, but only for those able to handle the increased velocity. Phone calls and e-mails will not work in this intra-day margining world, so now is a good time to think ahead on your collateral messaging framework as well as the functional applications to support the business.

### Single abstraction layer

Having implemented a cross-asset class solution for reporting you will have created a single platform for connecting to the external world. All trades (whether reportable or not), can be made available in a single common format on this platform.

This same platform can act as a single abstraction layer of other functions – clearing connectivity, affirmation connectivity, inbound clearing reporting and collateral communications. Numerous current and future bilateral connections from internal applications to external third parties – pieces of pipe – can be eliminated.

(This may sound too good to be true, but on examination of the detail, this assertion holds up in the real world. For example, if you have three internal applications and three CCPs, you need nine pieces of pipe, whereas with an abstraction layer it is only six. But adding a fourth CCP is one more instead of three, and so on.)

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### Internal data standard

In addition to the use of the platform, there is significant scope for re-use of data mappings created; if compliant with Dodd Frank you will have enforced use of FpML.

From here what is really interesting is that you have now created a common internal data standard. This standard can be used for all internal interfacing throughout the organisation with significant benefits.

In addition to the interfacing benefits of data from different systems being in a common format, there are also opportunities in new and improved reconciliations. The full trade economics are now available, not just the headline fields (as they have been reported). For instance daily valuations are being collated centrally owing to the need for reporting of the same.

## Control framework

When viewing these potential benefits as a whole, one can see that together they can become the building blocks of an internal control framework. The trade lifecycle is changing for OTCs, with significant new external events: reporting, clearing and continuation reporting. Valuations are supplied from clearing houses. Reporting on behalf of clients is another opportunity for something to go wrong.

With data in a common format and a single platform orchestrating external connectivity, it is easier than at any time before to implement a cross-asset class, cross functional control framework. By adding output from reconciliations to the organisation's knowledge about affirmation/ confirmation status, clearing status and reporting status, a genuine picture of a trade can be provided.

By aggregating knowledge from these diverse control points, operations are then able to triage investigations. People can focus on trades broken in more than one place as there is more likely to be a major problem.

At a high level, having the breadth of information readily available in a single location can assist with resource planning and assessing operational efficiency. Also, root cause analysis, trends and bottlenecks can be more easily identified.

These potential benefits of a control framework have always been known, but seemed unattainable. Data were too fragmented and any project to harmonise this was dismissed as too ambitious. And yet many of those stumbling blocks may well have been removed as a by-product of the current regulatory initiatives.

## SUMMARY

If some of this resonates, it may be you are now thinking, 'That's all very well, but with these ridiculously tight regulatory deadlines how can I possibly take time to think strategic or long term?' Being glib the response could be 'Can you afford not to?' The fact remains, however, that for the same cost, effort and time, the tactical solution you implement can be the foundation of a far more strategic solution. Fundamentally, to design a solution with an eye on reaping some future benefits may be as easy, or rather, no more difficult, than cobbling something together to meet the deadlines. This is a great chance to deliver:

- Vastly improved data quality leading to improved STP and management information.
- Lower risk for implementations, migrations and system replacements in future.
- A non-siloed, trading-system-agnostic, exception management and human workflow process that can be built out for other purposes.
- A single control framework aggregating knowledge of trade breaks at multiple internal and external touch points.

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