STP: Mind the gap

Achieving straight-through-processing (STP) has preoccupied the finance sector for decades. Yet it remains an elusive goal. Stephen Koch, Global Head of Data Quality and Client Onboarding at SmartStream RDU, believes it is time for a better, alternative way of 'joining up the dots'.

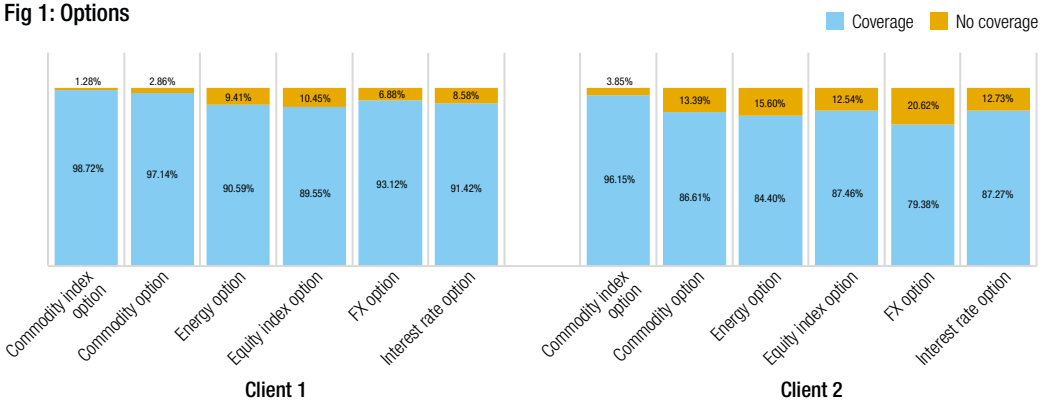
Straight-through-processing has been discussed by the finance industry for years. In order to achieve it, firms must connect front, middle and back offices, linking up multiple functional and other silos. Industry attempts to make this happen have tended to focus on combining existing data storage into one centralised database or data lake. In general, firms have sought to build an all-encompassing solution rather than simply opting to link up their data. Yet linking information and creating effective translations, believes the author, can provide a very useful alternative to trying to construct a vast, unified data repository – and also leads to better communication between systems.

Making true STP a reality has failed to happen for a simple reason: lack of standardisation. At present, information is communicated using a plethora of different codes and systems. Individual data vendors, for example, have developed their own methodologies, creating a variety of different ways to identify financial instruments. Typically, none of these 'languages' translates neatly to another, hampering communication. Even where industry standards have been imposed in relation to the communication of information, individual financial institutions have devised their own data management approaches, undermining standardisation attempts.

And it is not just individual companies that have their own way of doing things, different portions of these organisations do, too. A variety of codes may be in use, e.g., a back office may use GMI codes to identify instruments during the settlement process, but the same company's middle office will use Bloomberg codes to identify them – creating further barriers to smooth communication.

To make matters worse, the information

Fig 1: Options



available to the industry is often incomplete. Recent research (August 2022) carried out by the SmartStream RDU (see figure 1) surveys the coverage observed by two clients in relation to the futures, forwards and options contracts traded on a major US derivatives exchange. The blue portions on the chart highlight the data as a percentage of contracts available to them in a particular area, while the orange shows the percentage of missing coverage that they get from the SmartStream RDU (both blue and orange areas are provided by the SmartStream RDU). Take, for example, energy futures – the data available to client 1 does not cover some 21.26% of the contracts traded, while client 2 would experience a gap of 36.21% if it wasn't for the SmartStream RDU. Interestingly, both have shortcomings in the same areas. In the case of equity index futures, for instance, client 1 would have had a coverage gap of 29.5% of the contracts traded, while client 2 was missing 30.25%.

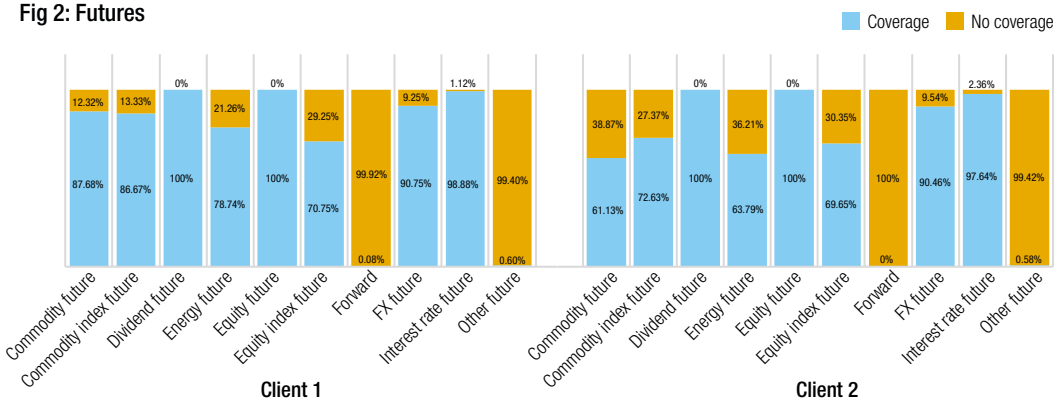
Unfortunately, the industry's patchwork approach to communication, combined with the frequent gaps (and inaccuracies) in the data that is available to it, means that processing breaks are all too likely to occur, and this has huge financial implications.

The cost to the industry of processing breaks and failures is illustrated by the ORX Annual Banking Loss Report (2021). The report reveals that from 2015 to the end of 2020, some 841,012 operational risk loss events were reported to its database, totalling €513bn in gross losses. Of these, the most frequent event type for most business lines was execution, delivery and process management, i.e., incidents caused by failed transaction processing or process management, from relations with trade counterparties and vendors. Some 107,441 of these occurrences were reported from 2015 to 2020.

If the industry is to stop haemorrhaging cash on failed transactions, it must eliminate the breaks that cause them. This is a tough task, however, given that growing complexity and the proliferation of regulatory initiatives will create less, and not more, standardisation, further stymieing STP attempts. Take, for example, the upcoming introduction of UPIs (unique product identifiers): this will generate a new set of symbols which will surely result in yet more silos, making communication between and within organisations even more complicated.

The SmartStream RDU is taking an alternative approach to 'joining up the dots' across clients' front, middle and back offices. The multiple systems in use in these areas have created a network of symbologies, which do not intercommunicate and need to be linked up. The best way to do this, other than creating a unified, centralised system, is through the creation of a common language which allows these webs to talk to each other. The SmartStream RDU is currently using cross-asset symbology cross-referencing to create this common language, filling information gaps in and connecting up disparate webs of

Fig 2: Futures



symbologies. It acts, in effect, as a translator between previously non-communicating systems – a Rosetta Stone for today's finance industry.

Drawing together sub-asset class level data from over 110 options and futures exchanges globally, the SmartStream RDU carries out cross-asset symbology cross-referencing at great breadth and depth. The reach and accuracy of the SmartStream RDU's information gathering capabilities also enable it to fill in the gaps in coverage that most institutions would be faced with. As figure 1 indicates, even in areas where clients have data, its patchy, or there is no coverage of the derivatives contracts being traded, the SmartStream RDU is able to deliver a complete and accurate picture.

The SmartStream RDU's cross-asset symbology cross-referencing capabilities, which can also be tapped into as a managed service, are currently helping a number of clients. Take the following case, for example. A firm's middle office, communicating with counterparties, relied on a number of different identifiers to capture and reconcile trades. Its front office was concerned primarily with pricing its book using pricing vendors and direct exchange links to capture portfolio P&L and NAV. These entities needed to communicate breaks or pricing anomalies, but the process often foundered when connections between the two became unclear. This resulted in restatement of the NAV and adjustment to the P&L, compounded by adjustments to client redemptions which were difficult to recuperate. By creating clear translation and linking, the SmartStream RDU was able to greatly reduce such issues from recurring.

In another instance, a large hedge fund was receiving files from clients. Each one employed different symbologies, which the fund wanted to understand. The hedge fund asked the SmartStream RDU to standardise the GMI contract codes used – these are not unique, non-standardised, nor are they normalised – which the SmartStream RDU did in partnership with GMI, by applying their best-practices rules. The fund can now ask its clients to submit information using the new approach, which allows the fund to understand client data promptly and effectively, and, even if the fund's clients do not use the SmartStream RDU standard, a tremendous reduction in manual labour has resulted.

In conclusion, cross-asset symbology cross-referencing offers a lifeline where efforts to achieve STP through traditional data centralisation projects have foundered. Indeed, by facilitating improved communication and integration between systems, it provides an alternative means of creating STP. It potentially also brings down the costs linked to exceptions: by weeding out information gaps and allowing the multiple symbologies in play to intercommunicate, financial institutions can stamp out expensive, operationally burdensome trade breaks, and so get to grips with the heavy losses which result from transaction processing failures. ■