

## Help is where the ROI is

### What is the return on investment on collateral optimisation technology? Martin Seagroatt of 4sight Financial Software takes a look

Collateral optimisation techniques offer a number of benefits to both buy- and sell-side firms and can generate a measurable return on the investment in technology required.

There is undoubtedly a large amount of inefficiency in collateral usage from market participants. An Accenture/Clearstream report in 2011 estimated that up to 15 percent of collateral that is available to financial institutions is left idle, costing the global industry more than \$5.6 billion a year.

Consultancy firm Finadium gave the example of a fund manager with \$500 million in assets, needing to collateralise a total return swap of \$100 million. Finadium estimated that using cash as collateral on

the trade could result in a loss of 25 basis points. Using treasuries would cost 24 basis points and using corporate bonds would cost nothing.

In a final example, a mid-sized bank carried out an analysis of its collateral and balance sheet usage. The bank found that more than 90 percent of the collateral that it pledged out to counterparties was cash. The bank also identified \$14 billion of high-quality fixed income assets and equities sitting idle on its balance sheet. When the bank compared these assets with its counterparties' collateral eligibility schedules, it estimated that it could save more than \$2 million a year through collateral optimisation.

In this instance, the break-even timeframe for purchasing and installing a software solution

such as 4sight's collateral system will be around one to two years. After that point, it will continue to be a very cost-effective solution in terms of ongoing support and maintenance. This is even the case for a large global, multi-site installation across timezones.

Furthermore, quality collateral should become more expensive as the shift to trading derivatives via central counterparties (CCPs) takes place and Basel III kicks in. A shrinking supply of high-grade assets, coupled with demand for initial and variation margin for CCPs, and increased capital to comply with Basel III, will increase collateral costs. The boost to the bottom line from optimisation should therefore also rise as time goes on.

## How technology systems can help

Of course, carrying out efficient optimisation can be a complex process. Trying to optimise manually using spreadsheets or outdated legacy systems is time consuming. Optimisation runs also need to be carried out quickly when booking trades. An advanced solution therefore becomes a necessity, particularly when processing higher volumes of trades for multiple business lines.

In contrast to manual systems, 4sight's collateral optimisation solution can identify the cheapest-to-deliver assets to pledge out as collateral at the touch of a button. It also offers the added benefit that the system can identify when a counterparty has been over-collateralised. This process can dynamically reflect intraday changes in credit ratings, credit limits and eligibility schedules during the lifecycle of a trade.

Collateral management systems can also offer significant automation around booking cheapest-to-deliver collateral. These time saving features range from margin call processing and netting to STP of settlement instructions.

Finally, collateral optimisation solutions offer the ability to substitute assets that are pledged as collateral on a regular basis to ensure that they remain the cheapest to deliver. In bilateral trading, this is not always practical, as a counterparty may not want assets to be recalled and substituted regularly. However, more frequent substitutions could be possible when trading via CCPs. They will potentially have the scale and operational efficiencies to make regular asset switches less of a headache.

There are also a number of more subjective benefits to using a collateral optimisation system. These are harder to quantify yet still valuable. For example, collateral management technology systems allow all of the required data on collateral across securities lending, repo and derivatives to be consolidated in one place. Previously, this information was sourced from many different places and multiple systems. This allows internal assets that are held at a firm to be made use of as collateral to cover a margin call before going to the street to source more expensive collateral.

Furthermore, collateral management solutions such as 4sight's ensure that users do not accept ineligible collateral and stay within the firm's collateral concentration limits. They also assist in Basel III compliance by helping users to hold onto high quality liquid assets for regulatory purposes rather than needlessly pledging them out as collateral.

There is an argument that banks with better capital ratios will find it easier to attract customers and investors. Again, this can add hidden value to collateral optimisation. Systems should therefore take into account the effect of Basel III reforms when proposing allocation of collateral assets.

In addition to the benefits listed above, an integrated solution for securities lending, repo and deriva-

tives collateral management can help to avoid conflicts between various internal groups. This helps to deal with competing demands for collateral from securities lending, OTC swap collateral, exchange-traded margin requirements, repo/reverse repo transactions, liquidity and financing needs.

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For firms providing client-clearing services, state of the art technology systems mean that they can offer optimisation of collateral to their clients as a value-added service. Clearing members can also add new revenue streams by offering collateral upgrades. Because collateral upgrades involve a repo transaction on the other side of the trade, there are advantages to using an integrated technology solution such as 4sight's that can collateralise the derivatives trade and process the repo leg in a single system.

## Why use a vendor solution?

Some of the larger tier one sell-side banks and brokers have already developed their own in-house solutions for the new demands of collateral management. In many cases, this makes sense as they have the scale and in house IT teams to deal with the complexity involved in this.

At the other end of the market, some smaller firms have simply outsourced their collateral management to third-party providers. While this can be expensive, it can be a logical choice for smaller firms that don't want to increase their headcount and technology footprint to manage collateral in-house. However, for a large number of firms in the middle, managing collateral themselves using a vendor-supplied technology solution makes sense from a cost/revenue perspective.

Technology vendors can supply knowledge of market best practices that they gain from working with a wide range of clients. This shared approach with other customers of the vendor keeps development costs low compared to building in-house. There is also the benefit of being able to take advantage of functionality requested by other clients.

Technology providers can assist with making the often complex changes in operations and mind sets required to make best use of assets and consolidate previously siloed processes. Furthermore, instead of reinventing the wheel, a vendor solution may already meet many of your functional needs with minimal customisation.

Of course, each firm's specific definition of optimisation is by its nature, unique to that firm, its risk profile and strategy. It is therefore important to select a technology vendor that is prepared to customise to meet needs where required. This allows you to get the best of both worlds. The system is developed, maintained and supported by someone else. The cost remains affordable, yet you still get a tailored solution with your own proprietary functionality.

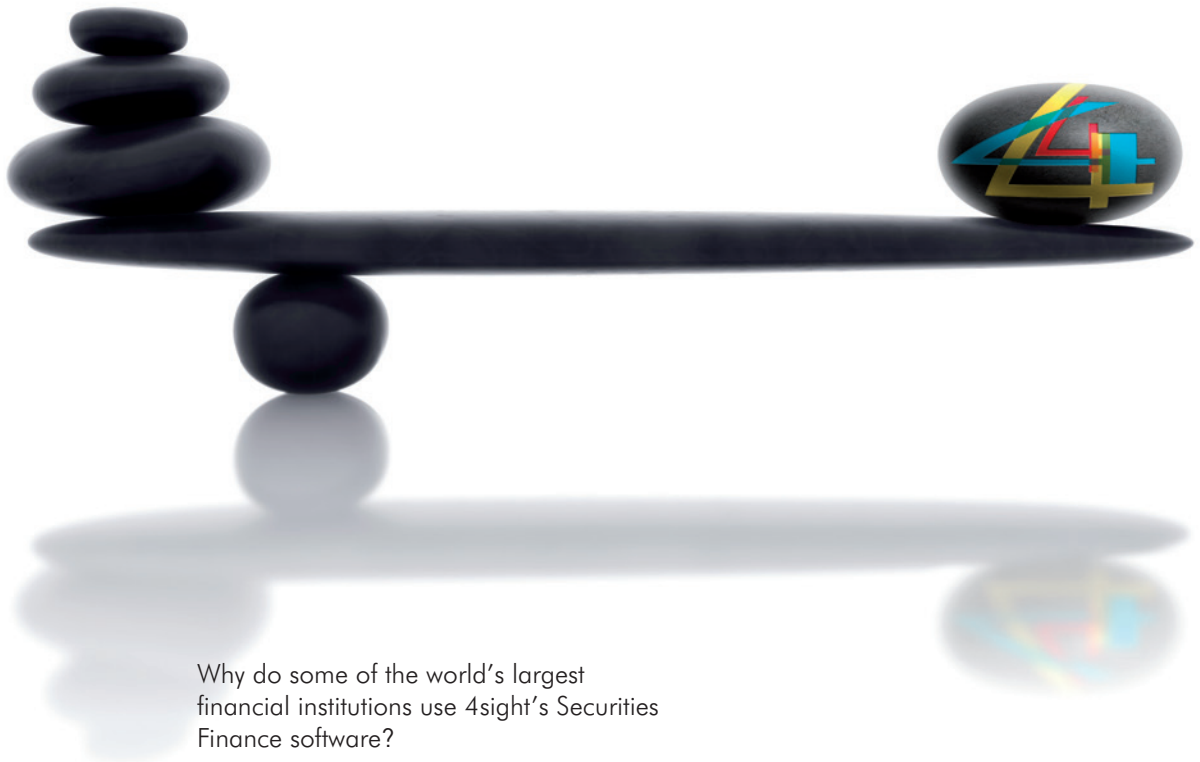
Outsourcing to a vendor also allows you to focus on your core competency, rather than trying to be a software developer as well as a bank/asset manager/insurance company. In addition, vendors can often deploy a system more quickly compared to building a solution in-house from scratch.

Finally, because the pace of regulatory change is moving so rapidly, significant time and resources must be invested in updating software solutions in order to stay competitive. Leaving this to a vendor can save a lot of time and effort. It also ensures that you can make use of a technology solution that offers the most cutting edge collateral optimisation and automation tools available well into the future. [SLT](#)



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