Other signs of commoditization are also emerging as we enter the second half of Wave 2.

Several new services focused on financing and collateral management have launched in recent years that standardize the benefits market pioneers realized through Wave 2 custom-builds and make these advantages available more widely to the hedge fund community.

Quadriserv's AQS platform offers a central counter party-based securities lending platform that facilitates automated stock loan trading in equities, ETFs and ADR product. This electronic, direct-access platform is providing centralized price discovery and transparency in an anonymous, automated environment.

Fund administrators are extending their middle-office outsourcing capabilities to offer collateral management services for OTC derivatives. These offerings aggregate a hedge fund's view of their positions across their set of prime brokers and perform collateral tracking, processing and optimization on the hedge fund's behalf. These services are offered to hedge funds at a significantly lower cost than it would take to build out a fund's own capabilities. Moreover, these services enable hedge funds to more flexibly address a rapidly changing OTC derivatives regulatory environment without having to set aside significant investment capital.

> *"Consultants built our finance application. It was built for someone else, and we leveraged that intel."*
>
> *– CTO of a U.S.-based Hedge Fund Managing between $3 Billion and $5 Billion USD*

Finally, some established software vendors are also expanding the scope of their offerings by acquiring and adapting collateral optimization solutions that had initially been developed for the sell-side. A recent example of this is Syncova's Optima system, recently acquired by Advent Software. Syncova was initially built by the sell-side as a margin and finance system, and then the technology was commercialized by spinning out as a software company, targeting both sell- and buy-side customers.

While other systems existed for OTC collateral management, Syncova differentiated itself by also addressing prime brokerage margining structures. Its recent adoption by a few of the largest hedge funds underscores the initial commoditization of this function. The acquisition by Advent should lead to further commoditization of collateral management over time given this vendor's entrenched position in the hedge fund space. Another new vendor in this space is Hazel Tree, whose offering provides a consolidated dashboard based on margin data files from prime brokers. Their platform doesn't replicate margin structures, but rather organizes the data in such a way that funds can gain insight into their cross-broker margin picture. This approach is more straightforward—and less robust—than "shadowing" prime brokerage margin calculations, but it is potentially easier to implement for a smaller fund.

Other software packages are becoming available that will streamline collateral movements by putting automation around the wire transfer process via SWIFT protocol—recently made cheaper for the buy-side community—and other electronic methods. One such product, offered by IntegriDATA, was built by way of a consulting project for a large hedge fund. A similar product from ECS Financial was built by transaction-processing automation experts.

In the financing space, customizations designed for the hedge fund space are also becoming add-ons to existing vendor packages. A common example of this can be found in Eze Castle Software's adaptation of their order management system to accommodate short locates, which allowed funds to more easily shop for the best borrow rates across various prime brokers.

These examples of how funds can better manage the collateral and financing of their businesses were made possible because of the foundation laid by Wave 1 investments and the broad availability of multi-asset trade and portfolio management platforms. As Wave 2 continues to unfold, we expect to see continued commoditization of finance and collateral management and a reduced need for hedge funds to invest in customization of these functions.

Wave 3 Customizations Emerge to Support Insight into the Investment Process

Whereas Wave 1 and Wave 2 enhancements related to creating foundational abilities to effectively realize the manager's investment strategy, emerging Wave 3 customizations are about how to harness information and create insight. Emerging Wave 3 customizations offer managers a differentiated ability to generate and share information about their investment process to satisfy investor and regulatory demands and to support an intensified focus on alpha generation.

As outlined in our June 2010 survey, *The Liquidity Crisis and its Impact on the Hedge Fund Industry*, there were several concerns that came to light in the course of the 2008 crisis. First, it became clear that the positions held in many hedge fund managers' portfolios were far less liquid than their investors had anticipated and, in many cases, were seen as outside the manager's stated investment mandate. Second, performance in the period underscored that many managers were simply using leverage in a strategy that was highly correlated to beta rather than having a differentiated approach to produce alpha returns. Third, there had been inadequate oversight of the investment