Buy-side and sell-side firms alike have invested significant human capital and technology resources to support new margin processes associated with Dodd-Frank, EMIR and other reforms. While these changes have affected operational structures, the collateral allocation decisions employed have remained largely unchanged. Approaches used in the market today generally rely on either:

- Decisions made by operational staff typically focusing on ease of allocation (e.g., delivering the largest eligible asset). This approach is used extensively by the investor community but may prove unsustainable as requirements become more complex and volumes increase.
- Algorithm-based processes leveraging a waterfall approach, enabling institutions to specify asset and/or margin obligation orderings in accordance with pre-established eligibility constraints. This functionality, offered by J.P. Morgan to its clients for more than a decade, has been leveraged by the intermediary community for tri-party transactions.

To the extent externally-sourced eligible collateral needs to be introduced in order to meet an obligation, either financing transactions or asset sales are often employed.

As the impacts of the new margin regime continue to materialize, market participants will face new pressures on their current practices that may require them to rethink their collateral allocation and financing approach. In most cases, these firms face a mismatch between assets held in their portfolios, which may fluctuate over time, and collateral eligibility that may have a long duration (i.e., multiple years). At the same time, leverage/capital/liquidity frameworks are making it more expensive for intermediaries to provide financing at the terms that directly meet the nature of these mismatches.

The easy approach to solving the mismatch would involve changes to portfolio construction; however, these changes will nearly always come at the cost of basis risk and/or yield. To more effectively meet the new collateral demands, firms may need to employ more sophisticated approaches when thinking about their collateral allocation and financing decisions upfront. These decisions may involve pledging, recalling, lending, financing or keeping a particular asset unencumbered. Each of these options will affect economics: having a means to assess the optimal decision available may allow firms to more effectively meet obligations.

J.P. Morgan has developed a multi-factor algorithm that enables firms to customize a set of factors that represent its economics and provides collateral optimization scenarios. Through a linear programming approach, the algorithm dynamically considers client-specified criteria and their impacts to transaction costs, risks realized, financing costs, liquidity requirements and lending benefits. Clients can benefit from reducing the occurrence of obviously inefficient decisions (e.g., pledging a security that is otherwise trading special in the financing markets) and less obvious decisions (e.g., balancing the need to keep larger, more liquid positions unencumbered while reducing transaction costs realized when delivering many smaller ones).

There are many impediments and requirements that may prevent firms from realizing the value of a holistic approach to their collateral portfolio and the changing nature of requirements. Sophisticated approaches, such as the multi-factor algorithm, can create a single view which may help link disparate parts of an organization involved in the collateral decision-making process to achieve better economics. Through the use of such tools in a ‘what-if’ capacity, treasurers can also better forecast their funding needs, stresses and durations to more effectively arrange strategic financing in the context of their collateral portfolio. J.P. Morgan understands the collateral demands facing buy-side and sell-side firms and is uniquely situated to meet these challenges with complete collateral portfolio solutions that provide valuable, sophisticated methodologies to improve clients’ use of collateral and related economics, including a globally consolidated view of collateral and obligations agnostic of clearer or custodian.