

Journey to Centralizing Modeling Function

By Daphne Kwan

Over the last few years, insurance companies have been centralizing modeling functions and moving away from a business-unit-based structure to one where modeling resources are shared by all business units. In this article, Cheryl Poulin, head of the Modeling Center of Excellence from Prudential Financial, and Angela Huang, head of actuarial services from New York Life, share their journey to centralizing a modeling function.

Q: When did your company start centralizing the modeling function?

Cheryl Poulin: Prudential announced the centralized modeling function in September 2017, after spending the majority of the year defining the overall operating model, modeling function and organizational structure. Several actuarial departments had actually been ahead of the curve and already started to evolve their organization to be more functionalized with separate modeling functions prior to the formal announcement.

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Angela Huang: New York Life did the centralization in multiple steps. We established the corporate actuarial modeling team back in 2014 by pulling people from different business units. In 2016, we established a finance services organization, which is broader than actuarial functions. At that time, we pulled together even more actuarial functions by centralizing production, asset liability management and experience studies.

Q: What are the differences between a centralized modeling function and individual modeling teams?

Angela: The clear difference is that we incorporated much more governance in the process with the new organization structure. In addition to centralizing modeling work, we centralized models as well. We are consolidating multiple actuarial functions into one model (e.g., asset-liability management, valuation and pricing). By doing that, testing and development need more structure and governance to ensure changes made for a particular function wouldn't negatively impact other functions within the same model. We are documenting now at a much higher standard. In the individual modeling regime, model developments happen at a much faster pace. The focus is the accuracy of results and agility, but the models' efficiency and architectural integrity are usually not the top priority.

Cheryl: We started by defining one model strategy (or future state), but we don't have one physical model used across all business units yet. This will be a multi-phased effort, taking advantage of current and future project work to achieve the vision. Similar to Angela's model governance point, we also focus on model governance. Our governance is centralized within the Modeling Center of Excellence, although not all modeling work, such as pricing, is centralized within the center.

Angela: At New York Life, we are not at the one-model state yet. We are moving in that direction in multiple phases as well.

Q: Other than governance and infrastructure, which we just discussed, is there anything the centralized function can do but the individual modeling team couldn't?

Cheryl: The service provided by the modeling function doesn't differ, whether it sits in a centralized function or within a separate business unit structure. It *does* make it easier to communicate with the information technology function with a centralized modeling function. We have a centralized IT function that is separate from the actuarial function. Having a single source of truth on prioritization and single source of stakeholder engagement has improved our ability to prioritize their work and streamline communication. You can imagine that if the IT function is responsible for the work of four modeling groups, you may not get what you want and you will leave decision-making in their hands, which may not be in your best interest. It is also easier to share best practices on documentation and testing, and share codes or code modules within the same organizational structure. You can still make some of that happen through committees or some other kinds of structure or operating models but it will have different challenges with different trade-offs.

Angela: I agree with Cheryl. Standardization, prioritization and governance can be coordinated by a traditional corporate oversight group. However, it is much easier in a centralized team. For example, we have combined all the asset modeling.



We have one set of asset coding for all the businesses. Any investment strategy or asset classes that are available for one line of business are available for all other lines of business as well. Through centralization, we have also found a lot of minor inconsistencies or errors in coding from the past made by multiple teams.

Q: On the flip side, what are the greatest challenges you are facing with the centralized function?

Angela: The benefit is often the challenge too. Development takes a lot more time and coordination under a higher level of governance. We need to ensure codes are efficient and architecturally sound and perform appropriately for various functions and businesses. The most difficult challenge is balancing priorities across all the stakeholders due to lower agility and longer development time.

Cheryl: Prioritization and managing the unintended consequences of not being able to get everyone's work completed is a challenge. There is always more work than your staff can handle, and the business still needs to meet its customers'

needs as well as respond to senior management, even if their work is at the bottom of the prioritization list. The danger of unintended consequences is that employees may start creating side models on their own and start to make business decisions based on the results.

Angela: We have the same issue here. Decisions may be based on these sandbox models, which take a fraction of the time to develop. The developments have the appropriate review process, but the coding quality, test plan and documentation would not be as well done as we'd like.

Q: If you could do this journey all over again, would you be doing it differently?

Cheryl: I would still centralize, as I see the opportunity there. From our perspective, we brought four different functions together all at once. If I could do it again, I would have piloted it or combined some teams first and then brought in some of the other groups in a staged way to test the organizational structure, make some adjustments as necessary and keep expanding the modeling group. Bringing all the different

cultures together all at once could result in a lot of change, and that could be disruptive to getting the job done.

Angela: If we were to do it all over again, we would over-communicate, over-educate and plan at a deeper level for a smoother execution. We had a lot of good thinking and wrote up detailed governance policies but could have spent more time on creating templates to make documentation easier, educating teams on how to do it, and holding them accountable. Having strong alignment and commitment from management to the appropriate level of governance is very important. Starting off with a lot more communication and training, followed by strong reinforcement and commitment to the governance policies is very helpful.

Q: What do you think are the factors contributing to a successful modeling function?

Angela: Having alignment across the board and delivering a clear message throughout the organization are key. Setting clear roles and responsibilities and committing to the right amount of change are also important. You need to have a proper framework on how the organization will operate. This includes how to/who will prioritize the work, how to/who will make decisions, and how to communicate to the stakeholders.

Cheryl: Yes, and I would also add that it's critical to have a strong alignment on strategy and, priorities as well as having the dedicated resources within the IT function.

Q: Is there anything you would like to tell your business partners?

Cheryl: One thing we have been engaging with our users on is how we work together. The modeling function doesn't really do everything by itself. We often have to leverage each other's strengths. Things can move much slower if we completely laminate responsibilities by functional role. For example, take business requirements. Users may sometimes write them,

while a modeling group may write them at other times to get it moving. We need to have flexibility when expertise is needed.

Angela: One thing we have been telling our business partners is that this journey is an evolution. The roles and responsibilities will change as we continue to evolve. We will keep tweaking how we operate depending on where we see our successes and failures and where we are on our road map. We need to have open communication around what works, what doesn't work and what the challenges are.

Q: Any other final words on this journey?

Angela: A lot of the challenges we are addressing have nothing to do with centralization of modeling functions but rather a higher level of governance required in the current environment. We can keep individual modeling teams, but the rigor around documentation, testing and standardized coding remain. Many of the challenges we have discussed thus far are considered to be driven by centralization, but a large number are also due to the increase in governance. We are operating in a world where financial institutions require more governance. Centralization helps us along the path. As we move further along in our journey we continue to see benefits, and we expect more to materialize as we move closer to our future state. ■

The views expressed in this article are not those of MetLife.



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