

*Value from risk  
and finance  
alignment*





## Overview

Managers of financial institutions<sup>1</sup> are under pressure from management, boards of directors, investors, and regulators to (1) deliver improved and more transparent performance management data, and (2) effectively price for risk when making business decisions while (3) meeting regulatory expectations. In order to meet these demands, PwC sees a significant industry shift towards greater alignment between the risk and finance functions – but a shift that is still in its early stages with much to be accomplished in the coming years as institutions move towards a growth agenda.

In most institutions, the risk and finance functions have evolved separately, and largely exist in their own silos with distinct data definitions, operating models, and technology. Not only do these historic divisions between the two functions result in higher operational costs due to duplicative activities, but they also force management to stitch together pieces from each function to produce an integrated view of the business.

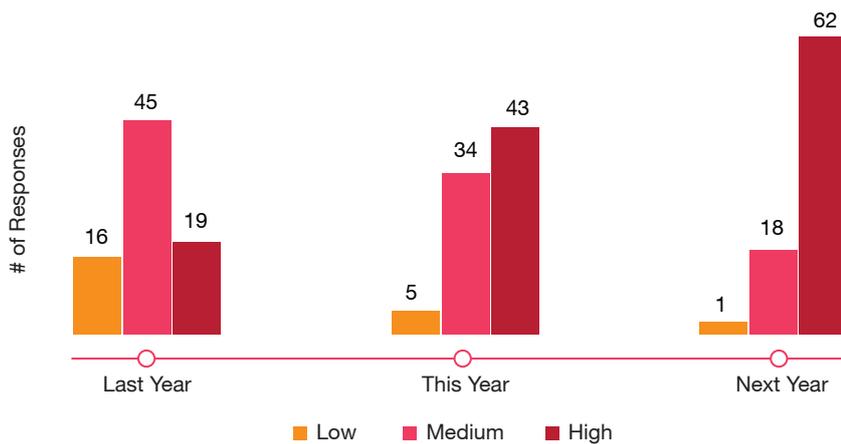
Though some institutions have already started along the path towards alignment, results from our recent global survey of 30 financial institutions indicate a significant gap between the importance that management is placing on greater alignment of the two functions (Figure 1), and the results achieved thus far (Figure 2). While more than half of executives give the topic high importance now, and see it as even more important for next year, nearly two-thirds say there is little or no formal alignment or coordination between the two functions.

<sup>1</sup> We use the term financial institution throughout this paper to mean retail and commercial banks, investment banks, and asset managers.



**Figure 1: Importance of Alignment**

Survey Questions 5-7: In the context of all other priorities in the Risk/Finance area, how important was the topic of improved Risk/Finance alignment for your organisation?\*



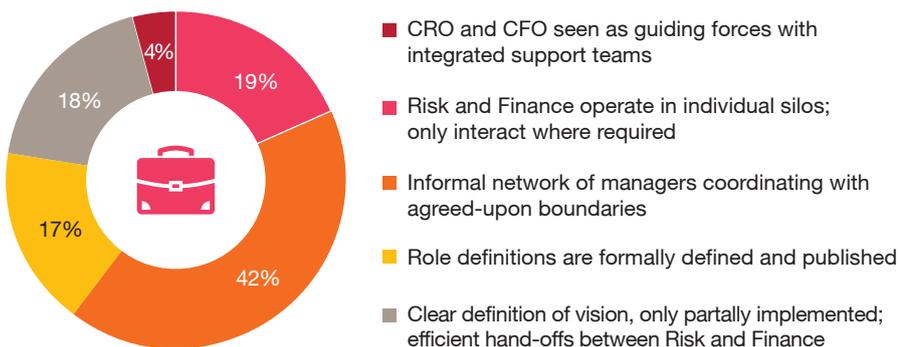
\* Represents 85 interviews or questionnaires spanning 30 institutions globally. Survey respondents were from Risk, Finance and Operations. Some respondents may not have answered every question.

Expediting progress requires the tone for change to be set at the top, and new ways of thinking about the activities that are executed by both functions. Financial institutions that solve the risk and finance alignment puzzle stand to reap numerous benefits beyond improved compliance with regulatory mandates, including improvements to cost profiles, controls, transparency, and better business decisions.

This paper addresses the following questions and integrates findings from a recent global survey conducted by PwC on risk and finance alignment (1) Why should risk and finance alignment be a priority? (2) What are the key elements of an effective risk and finance alignment framework? (3) What are the key obstacles to a path forward? and (4) What should financial institutions do now?

**Figure 2: Maturity of Alignment**

Survey Question 16: Which option best describes your institution's maturity around Organisation and Governance in the Risk and Finance functions?



**Asian Insight**

Interestingly for questions 5 - 7 asian respondents stated that the alignment of risk and finance for each of the 3 years in question was consistently higher than that of respondents from the rest of the world. We believe this is due to the smaller regional footprint with a focus on efficiency, but also a tone set from regulators in the past.

# Why should risk and finance alignment be a priority?

In the survey, two-thirds of respondents identified regulatory demands as the primary driver for increased alignment between risk and finance, with few placing priority on enhanced business decision making and internal reporting (Figure 3). We think such emphasis on the external regulatory demands is misplaced and that the real value of increase risk and

finance alignment comes from the uplift of business decision making capabilities.

However, we do acknowledge that some managers may say regulatory demands are driving to enable securing budgets without having to deliver on or prove performance enhancement business cases.

**Figure 3: Reasons for Alignment**

Survey Question 8: What factors do you see as catalysts for greater alignment between Risk and Finance?\*



\* Multi-select question, respondents were able to select from all that applied.



Our expectation is that the industry will soon re-prioritise the driving rationale for greater alignment, with business cases predicated more on improved business decisioning and cost reduction than in the recent past. The external regulatory mandate will not disappear, but will likely decrease somewhat in prominence with the recognition that if better risk-based business decisions are being made and reported by risk and finance, the regulators' objectives of safety and soundness are largely met. These three drivers of the alignment business case are further expanded upon below in what we view to be the proper priority.

### ***Improved insight and decision making***

Good decision making requires fast, consistent and reliable data about a financial institution's risk exposure, the capital and liquidity needed to support it, and the impact on the bank's present and future profitability. By improving access to this data for both risk and finance in a timely, standardised way, firms can use a risk-adjusted view of financials to achieve a better return on capital.

For example, in one organisation, through a deeper analysis of the Liquidity Coverage Ratio (LCR) reporting done by risk and the FR2052a Complex Institution Liquidity Monitoring Report done by finance, it was found reports were making inconsistent (and incorrect) assumptions resulting in a higher liquidity buffer than required. As data sets, assumptions and detailed calculations were analysed and rationalised, the organisation found a \$17-20 billion reduction opportunity in liquidity buffer requirements.

In another example, one organisation reorganised finance and risk teams who worked on the RWA production process into a single team. What they found was a 20% reduction in overall effort, but also an improved and more timely output to drive greater business volumes.

On an even larger scale, today's financial statements and investor presentations are frequented with examples of portfolio re-alignments and other business decisions driven by risk-based capital, liquidity, and other drivers of business performance that are only made possible with quality data provided through a combination of the risk and finance functions.

Estimating the benefits of more optimised capital or liquidity reserves, or of improved product mix and other business decisions attributed to closer alignment between the two functions is difficult to predict, but is an important business case exercise when pursuing the data, technology and operating model changes suggested in this paper.

### ***Increased efficiency***

Increased efficiency as defined here pertains to the opportunity to reduce the operating cost structure of running two functions with redundant infrastructures, non-standardised data models, and duplicative processes.

The risk and finance functions in most institutions each sources its own set of raw data to use as the basis for their calculations, models and reporting. That data typically flows through different intermediate systems with specific data formats, definitions, and transformations that greatly complicate activities such as reconciliation, reporting and disclosure.

In our view, a strong alignment focus on standardising the activities of data sourcing and adjustment will lead to the simplification of reconciliations and reporting. Standardisation of these processes also makes them more easily automated or outsourced to third parties, which can lead to further cost reductions.

### **Regulatory pressure**

The post-financial crisis wave of prescriptive reporting requirements and other bar-raising mandates laid down by regulators have forced many financial institutions into a reactive mode of rapid, tactical actions.

While some such external requirements have largely been addressed by most institutions (e.g. capital adequacy), others are still a work in progress and continue to demand significant new joint compliance efforts by both functional areas. For example:

- The International Accounting Standards Board's International Financial Reporting Standard 9 (IFRS 9) rules for classification and measurement of financial instruments, and impairment of financial assets and hedge accounting
- The Basel Committee on Banking Supervision (BCBS) regulation 239 for risk data aggregation and reporting

- The Financial Accounting Standards Board's (FASB) new Current Expected Credit Loss (CECL) guidance on accounting for credit losses in the U.S.

Compliance with individual regulations like these is often addressed in a relatively, tactical, and rushed manner nature, creating discrete, one-off solutions that can result in reconciliation issues and other challenges when looking across management, regulatory, financial and risk reporting. This "tyranny-of-the-urgent" approach is frequently cited as a major distraction from a more strategic, thoughtful approach to alignment.

This problem is a growing concern not only because the tolerance for error by regulators continues to shrink, but also because the volume of required information continues to increase. Better risk and finance alignment can enable a more holistic approach, with a roadmap for meeting individual regulatory mandates without the complexity of managing disconnected tactical solutions.

### **Asian Insight**

*BCBS 239 was applicable to the global list of systemically important banks (G-SIBs), however, had a recommendation to national supervisors to also apply the principles to banks identified as domestic systemically important banks (D-SIBs) three years after their designation. In Asia, HKMA and MAS designated D-SIBs back in 2015, as such, have asked their D-SIBs to submit their BCBS 239 compliance plans. Institutions can tackle requirements of BCBS 239 and other regulatory mandates separately or plan now for greater alignment which will accelerate and simplify compliance overall.*

# What should alignment look like?

Risk and finance alignment does not entail merging both functions into a single unit. Each function has distinct mandates related to the first and second lines of defense that warrant a continued degree of separation and independence. Instead, we believe that financial institutions should integrate only those activities that would result in a more efficient and effective operation while still enabling each function to meet its individual mandates.

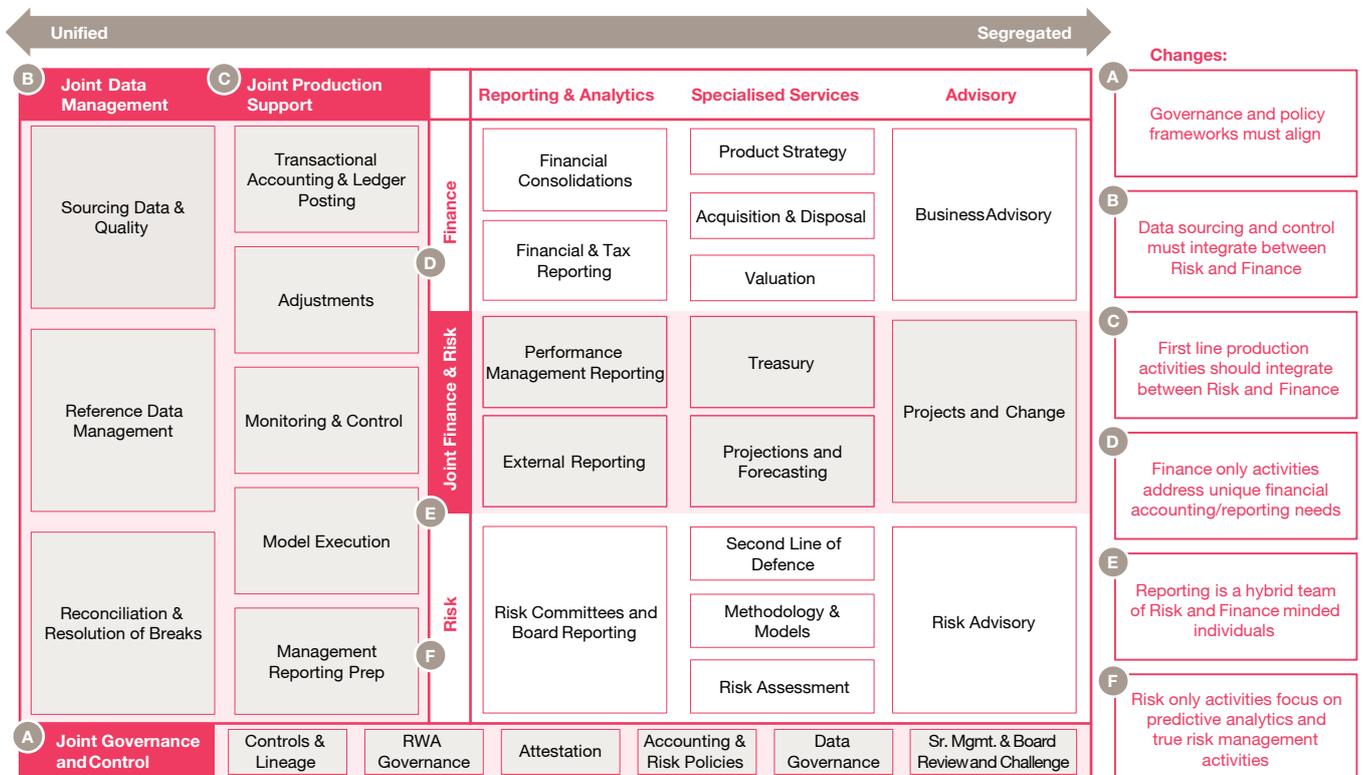
When embarking on a more holistic approach to alignment, we typically recommend looking at the three major areas of: (1) operating model, (2) data, and (3) technology, each of which is addressed more fully below.

## Operating model

A target operating model covers governance, organisational design, and process management. Figure 4 provides our recommended risk and

finance aligned model, and reflects where we see the industry moving. The gray shaded boxes in the diagram highlight the areas more conducive for major standardisation across the two functions. And in many cases, these areas also warrant significant organisation changes such as dual reporting lines into both risk and finance, or centralisation to a shared services facility.

Figure 4: Illustrative Aligned Risk and Finance Operating Model



Major alignment opportunities in this model include:

- **Align governance activities:** Beginning with underlying governance, Section A at the bottom of Figure 4 illustrates governance and control functions conducive to standardisation across both risk and finance. Governance activities such as strategy, policy setting, and oversight, set the tone of the firm and influence the oversight of the control framework around alignment. This is not to say that all aspects of risk and finance governance falls under this aligned operating model. Only elements that make sense. For example, a common control framework might include aligned policies, data controls and data lineage, and will be applied across both functions in selected areas such as risk-weighted assets (RWA) governance, attestation and stress testing. We are aware of some firms that have already moved such activities under dual risk and finance reporting lines.
- **Unify data management activities:** Sourcing of data, assessing quality, and performing reconciliation for each specific use is less cost effective than a single data management function that serves all data consumption needs. It does not make sense for safety and soundness purposes or cost efficiency to have risk and finance functions each work on data separately when it can be done once. Conforming data activities such as those in Section B of Figure 4 not only reduces operating costs, it also facilitates greater data standardisation and control.

- **Integrate production activities:** Production is another area with significant benefit to merging and conforming activities is in production support as reflected in Section C of Figure 4. Aligning the timing and processes of the respective production cycles, reducing redundant or conflicting activities such as data adjustments, and facilitating more standardised, integrated reporting solutions are all major benefits that can be achieved. Integrating production activities will also enable greater alignment of core technology solutions. For example it may be possible to integrate market risk data stores and daily P&L stores.
- **Organise reporting into hybrid teams:** As institutions pivot from an especially heavy focus on regulatory compliance to a greater emphasis on growth and profitability, the business requires better capabilities to price for liquidity and risk appetite, and leverage stress results in portfolio design decisions. To supply the requisite information to support these business needs, finance's management reporting is increasingly intersecting with risk to be more forward looking. Teams with joint risk and finance participants organised around key reporting themes such as those in Section E of Figure 4 bring both skill-sets into alignment.

- **Retain select bespoke activities within their individual functional areas:** Figure 4 also illustrates activities that warrant little or no change, and that are best kept in the exclusive domain of their respective finance or risk organisations (boxes in white). For example, there exist finance-only activities that address unique financial accounting or reporting needs, and risk-only activities that focus on predictive analytics and risk controls. While such activities can be left out of a joint operating model, they still may benefit from improved alignment such as increased use of standardised data or use of uniform assumptions for models.

### Data

The financial services industry is increasingly adopting a view – at a corporate level – of data as a strategic asset. Supporting this trend is the development of commonly held pools of high quality data made available for multiple uses. There are no better areas of an institution to lead this trend than risk and finance.

The operating model described earlier is easier to implement and functions best with an underlying data foundation that is aligned across risk and finance. Most institutions are already working on such as common data standards and data controls, and it is an area where the industry continues to make significant investment. But progress is slow and difficult, with considerable effort still required to reach desired alignment.

### Asian Insight

*In recent years, following on from US and European regulators, we observe that Asian regulators have been placing more emphasis on the comparability between the measurements for financial reporting and risk management purposes. In particular, regulators expect the models used by risk and finance to cover the same set of risk factors and to be based on similar assumptions and quantitative models, and are actively questioning institutions where significant differences are observed.*

Figure 5 shows the percentage of survey respondents rating the maturity level of the various aspects of their data management alignment between the two functions. Some topics such as data security, data controls, and data reconciliations rank relatively high in maturity for the industry today, but others such as data remediation, data lineage, and meta data management still lag considerably.

Formation of a joint data management team spanning both the risk and finance functions is an effective way to facilitate great alignment across most aspects of data (Section B of Figure 4). Such a team may have matrixed reporting into both risk and finance, and in some cases to a Chief Data Officer (CDO). For larger, more complex institutions, there may be not only a centralised data management team, but also business unit and/or regional teams. Clearly defining the mandate for this team, along the lines of the data management elements listed in Figure 5, can greatly accelerate alignment progress.

Another lagging area for data alignment – and perhaps the most challenging for institutions – relates to data ownership and stewardship. The root cause of the issue here resides less in the risk and finance functions, and more with the front-line of the business where data is originated. The conventional belief is that most data consumed by risk and finance is actually owned by the front-line (or at least should be), and thus the business side should have primary responsibility for data quality and stewardship. Reality, however, rarely finds disciplined fulfillment of those responsibilities in the front-line.

This is a more difficult problem for the risk and finance function, or a newly created joint data management team, to resolve alone. Intervention by other areas is often necessary. For example, institutions with a mature, enterprise-level CDO function often has more influence with the front office management than does risk and finance, and may also be better equipped with the necessary skills and staff. Another effective approach is top-of-the-house sponsorship by a CEO to drive a more data-centric culture across the enterprise through means such as relevant data quality metrics being added to balanced scorecards for business unit managers, with direct compensation implications for non-performance.

### Asian Insight

80% of respondents from Asia felt they had some data standards applied across a subset of applications used by risk and finance. This was higher than respondents in other locations, however only 10% had a way of reconciling risk contract populations, indicative data and valuation to Finance. We believe there is may be a risk of complacency in the region that could result in a heightened risk of reporting errors.

**Figure 5: Data Alignment Maturity**

Survey Question 31: What is the relative maturity level of each aspect of your data management today in terms of consistency and effectiveness for cross-functional Risk and Finance purposes?

	None	Low	Med.	High
Data quality	0%	46%	50%	4%
Data ownership	7%	50%	39%	4%
Data standards	2%	42%	49%	7%
Data architecture	5%	38%	49%	7%
Data requirements	2%	42%	46%	10%
Data controls	2%	30%	61%	7%
Data stewardship	9%	56%	30%	6%
Data lineage	8%	57%	28%	8%
Data remediation	4%	50%	37%	9%
Data reconciliations	4%	29%	61%	7%
Data policies	4%	35%	50%	11%
Meta data mgmt.	10%	50%	33%	8%
Data adjustments	9%	38%	49%	4%
Data security	2%	22%	48%	28%

## Technology

Similar to data alignment, improved technology alignment serves as a foundation for achieving the benefits described in this paper. We have observed significant technology investment in the industry since the financial crisis, particularly among the

global systemically important banks (G-SIBS) to improve and standardise the ability to aggregate and report financial and risk data. Despite the investments, however, nearly half of the institutions surveyed still rate their level of technology alignment maturity as low (Figure 6).

**Figure 6: Technology alignment maturity**

Survey Question 37: What is the relative maturity level of each aspect of your technology function in terms of consistency and effectiveness for cross-functional Risk and Finance purposes?

	None	Low	Med.	High
Hardware	2%	42%	44%	12%
Functional requirements	4%	46%	35%	15%
Interfaces	0%	51%	42%	7%
Support teams	2%	57%	33%	7%
Software architecture	0%	60%	31%	8%

We believe the actual alignment maturity is even lower than what is represented here, given that many organisations have still not defined their risk and finance alignment strategy, process, and data ambitions. Therefore, the technology infrastructure as assessed today may not even meet the requirements that eventually emerge from those precursor actions.

When addressing aligned architecture across risk and finance, key components typically include the following:

- Single set of standard interfaces and middleware architecture to capture data once from each product system for all uses
- Single-version-of-the-truth data solutions with more timely data aggregation to support daily, and even intraday, uses
- Standardised and controlled data enrichment and engines

- Standardised reporting applications and information delivery tools
- Common technology solutions to support data quality assessment

Two considerations related to achieving more aligned technology that we often find underestimated or under-emphasised are: 1) the need for the business to drive requirements, prioritisation, and solution design from a business perspective, and 2) the difficulty and effort required to actually migrate legacy activities onto the new technology platforms once available. The former requires proper collaboration and governance between the business and IT teams, and the latter, sufficient resourcing such as time, staff, and budget.

Achieving the right architecture can be a costly and time-consuming endeavor, so staging it over several years with a clearly defined vision and roadmap is a necessary approach.

# What's the holdup?

In our survey, less than 10% of respondents stated that their organisation had developed a well-defined vision for risk and finance alignment for the next 2 to 4 years. In fact, approximately 25% of respondents stated there was no defined vision for alignment, with the remainder acknowledging either a very preliminary or only a moderate definition of the vision. Despite being part of the conversation for several years, there are many reasons banks have still not better coordinated these two functions.

Figure 7 reflects responses when survey participants were asked to name the top three barriers preventing better alignment. The most prevalent answers were: (1) other priorities, (2) cultural differences, and (3) technology challenges. Looking more closely at these most frequently stated barriers reveals practical ideas for overcoming them.

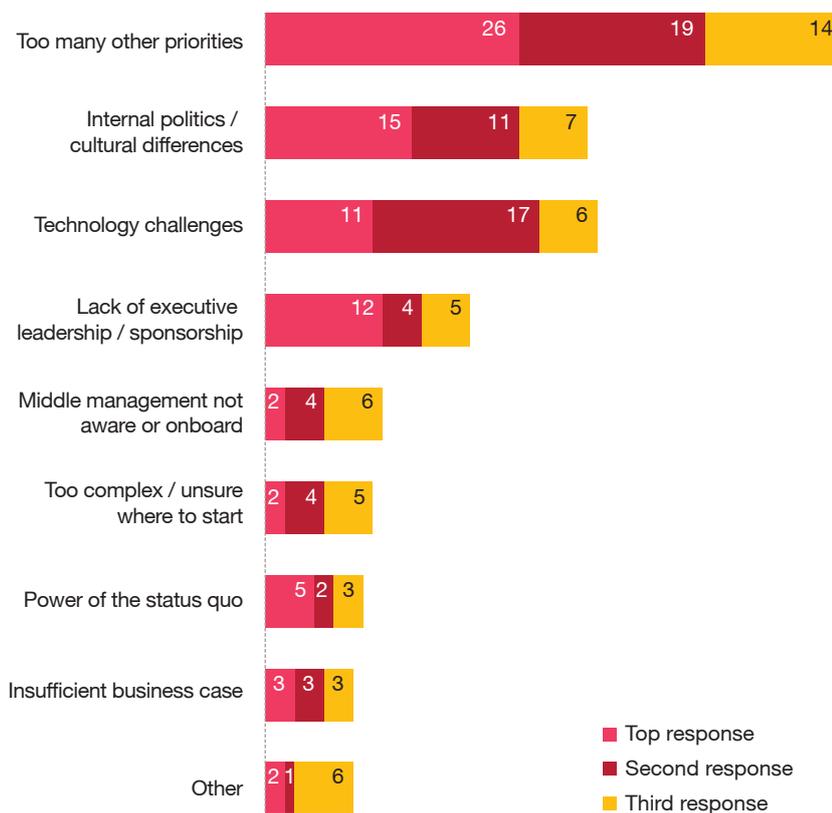
## Too many other priorities

The #1 perceived barrier inhibiting better alignment between risk and finance is simply having too many other priorities. The irony of course, is most of those other priorities are regulatory mandates that essentially require better alignment between risk and finance. What is happening however, is that due to tight deadlines of the many discrete and narrowly defined regulatory mandates, banks are rushing solutions and applying them to the narrowly defined area only. It is this band-aid approach that frustrates focus on a more holistic alignment strategy by consuming resource capacity and creating more dis-jointed operations.

An effective path out from under this heavy flow of individual regulatory mandates is to step back, define a more holistic alignment model for risk and finance (including governance, organisation, processes, data, and technology), and then fit the solution for each discrete regulatory mandate to that model. A major European-based global institution set a good example of this approach when they ran into significant regulatory issues in a major country of operation. After several years of inadequate tactical solutions and increased regulatory scrutiny, a new management team conducted a sort of “regulatory reset” whereby they effectively negotiated a partial pause on tactical actions with the regulators to create time and capacity to design and execute a more strategic, broader-based solution.

**Figure 7: Barriers to Alignment**

Survey Question 23: What are the actual or perceived barriers to enabling greater alignment?



### **Cultural differences**

We believe several factors are behind the survey results showing culture and politics as a major inhibitor to alignment. Foremost is a fundamental distinction between how the two functions utilise and view similar data. Traditionally, finance professionals take a historical but precise view of data for reporting of actuals, with typical reporting cycles on an infrequent and lagging basis (e.g., monthly and quarterly). Precision is expected by the markets, auditors and regulators. Thus data accuracy is generally more important than data timeliness – even for forecasting activities. The risk function on the other hand, tends to place a higher premium on timeliness than on accuracy given the typical forecasting and business decisioning cycles and processes that risk supports. Risk managers need updated data on a daily or intraday basis.

Other factors driving culture include significantly different training, vernacular, and perspectives of the respective risk and finance staff, and the fact that there is only one person (the CEO) who transcends the leadership of the two functions to force greater alignment. Historically there has been little incentive or willingness for CEOs to do so.

Cultural factors like these may sound minor and easy to dismiss, but in actuality are the most difficult to address. Cultural change can only take place with a long-term commitment and focus to go beyond quick fixes. It also requires a tone at the top that makes it clear to both functions that senior leadership is supportive of alignment not only to effectively overcome entrenched bureaucracies, but also to clearly outline its long-term benefits. In fact, according to our survey, less than 10% of respondents believe their CFO and CRO are guiding forces in the effort towards alignment.

### **Technology challenges**

The interviews we conducted as part of the survey process revealed details behind the stated challenge of technology. The issue is not that respondents believe the necessary technology is unavailable. On the contrary, advances in both off-the-shelf and bespoke solutions has been tremendous in the past decade or so. Instead, the challenge relates to the high cost of implementing such solutions, and to the organisations' inability to rally around a definitive business case and solution roadmap. In other words, if the first two challenges of prioritisation and cultural differences were resolved, the technology challenge is more surmountable.

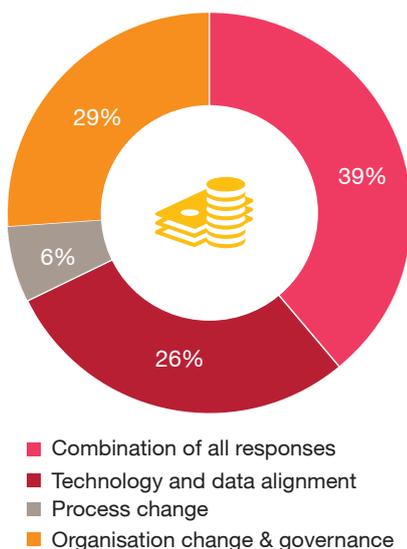


# What should firms do now?

When asked through which means they feel increased risk and finance alignment can best be initiated and driven in the early stages, the majority of survey respondents indicated organisation and governance changes, or a combination of that plus data and technology effort would be most effective (Figure 8). And yet most organisations indicate modest attention and progress only in the data and technology area.

**Figure 8: Best Approach for Alignment**

Survey Question 12: Through which means do you feel increased Risk and Finance alignment can best be initiated and driven in the early stages?



Based on our engagement experience, industry observations, and observations and survey, we have compiled the following top 10 recommended steps for action. Individually, each seems simple. In reality, however, they can be surprisingly difficult to fulfill properly, and do require adequate resourcing.

- 1. Case for Change:** Develop a business case that is internally driven and predicated on business needs and profitability or cost reductions rather than regulatory drivers. The results are likely to be compelling and can help mobilise the organisation to action.
- 2. Executive Sponsorship:** At a minimum, effective sponsorship requires aligned collaboration between many key executives, including the CFO, CRO, CDO, and CIO. And if that fails, it requires sponsorship that transcends such functional boundaries, leaving only the CEO to intervene when necessary.
- 3. Defined Vision:** A clearly defined vision provides a motivating rallying point to mobilise an organisation and maintain focus during transformation.
- 4. Governance Framework:** Some aspects of risk and finance continue to have traditional autonomy, but the alignment program itself, and the on-going operational activities that are brought together require a more complex, dual-reporting governance structure covering both functions.
- 5. Execution Roadmap:** If the vision clarifies the end goal, a clearly defined roadmap – potentially spanning several years – helps ensure each step is in the right direction towards that goal.
- 6. Project Rationalisation:** Review the mandates of existing change programs to ensure they align with the new risk and finance vision and roadmap. As stated earlier, “too many other priorities” is the #1 barrier to progress, but these other priorities are often times disconnected efforts that if brought together and rationalised, ultimately can support the vision.
- 7. Organisational Change:** Functional areas designated for joint operation must undergo some form of organisational change to break from the status quo.

**8. Incentives:** Individual behavior and actions are governed by incentives of one form or another, and those incentives support today's world of unaligned risk and finance functions. To expect any change from that set of status quo behaviors requires a change to the underlying incentives – compensation or otherwise.

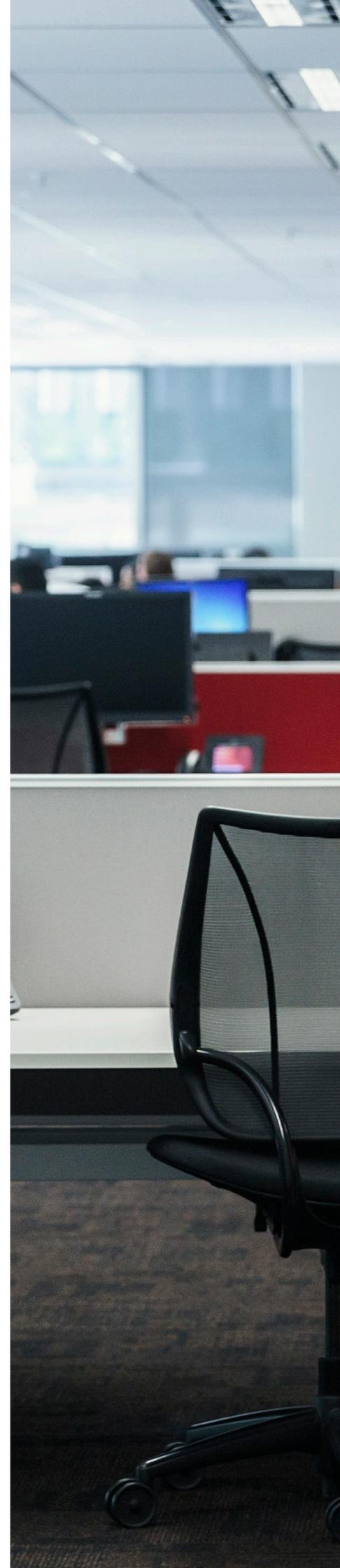
**9. Training:** To use a sports analogy, one might think of bringing risk and finance team members together to play the same game as equivalent to bringing cricket and baseball teams together to do the same. Without proper training on the rules and skills of the game, and without some hybrid adaptation of both games into a new one with characteristics of each, you cannot expect a good outcome. A solid training program across the two functions, augmented with job rotations and other interactions will help each side better understand the other.

**10. Shared Services:** Utilise new or existing shared services operations to accelerate functional alignment by providing a more neutral environment likely better equipped to make the required process, data and technology changes.

In conclusion, we are convinced the industry is already aware of – and bought into – the need for greater alignment between the risk and finance functions. We hear that conviction in our conversations with key stakeholders in nearly every institution. The questions remain, however, of whether:

- The value proposition for faster action and better results is fully appreciated,
- The appropriate definition of alignment for any given organisation is clearly understood, and
- The conditions necessary for success are in place

Just as the industry goes through periodic, large-scale paradigm changes such as the acquisition and consolidation spree of the 90's, the financial crisis of 2008/2009, and the resulting regulatory pressures in the years since, we believe the next major change will be the better alignment of risk and finance with a focus on managing the business with a far greater degree of precision and success than in the past.



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