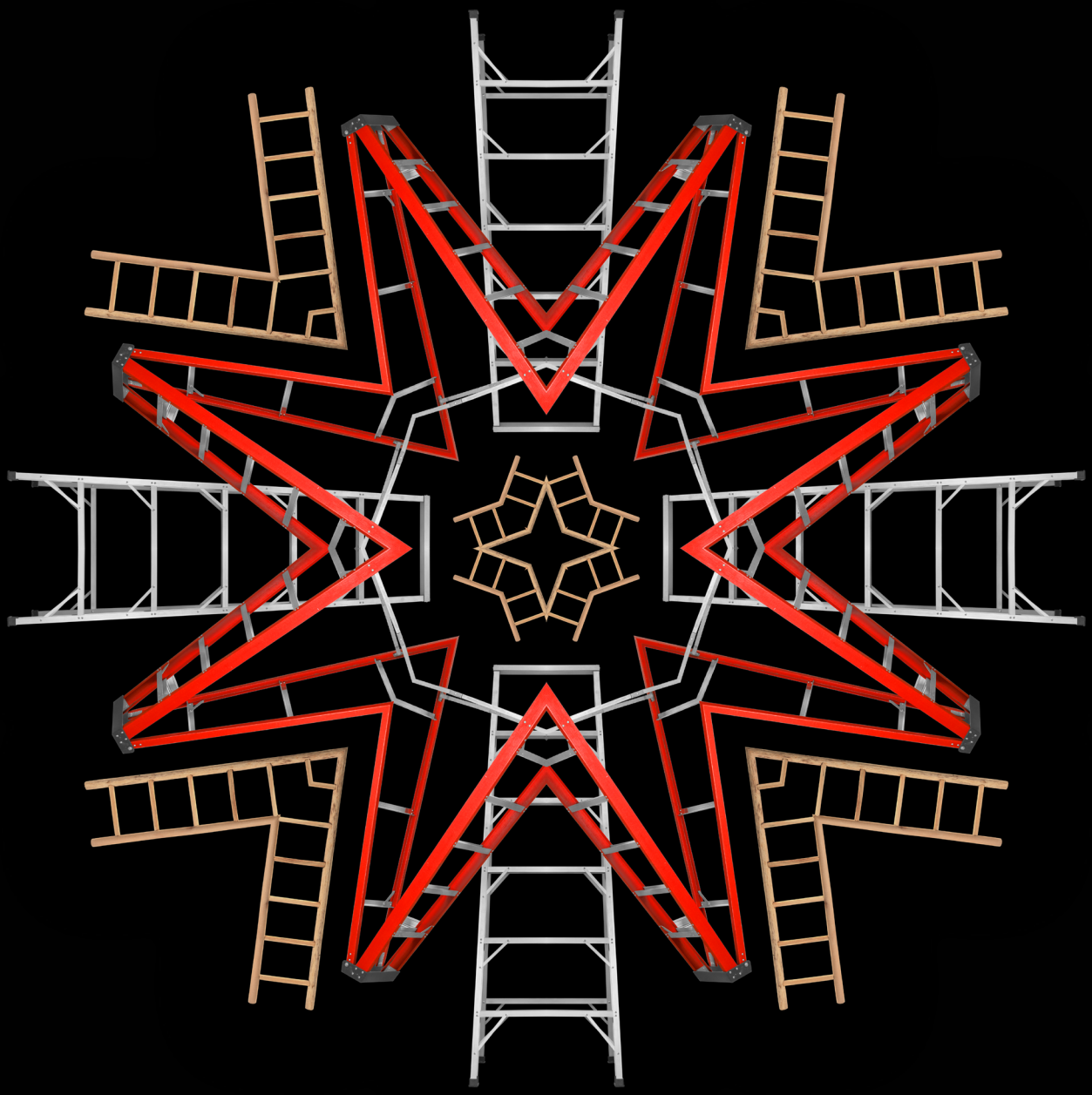
Deloitte.



Dealing with divergence

A strategic response to growing complexity in global banking rules

Regulatory Risk

Risk powers performance

Explore the potential of divergence resilience

Almost ten years from the onset of the financial crisis, 'regulatory fatigue' seems to be setting in and several countries are questioning the necessity of adopting additional common global regulatory standards.

The nearly decade-long drive toward financial regulation convergence is raising new concerns for internationally active banks. Countries are expressing a desire to deviate from international standards, notably the Basel framework. Stirrings of populism and protectionism are fueling uncertainty in both developed and emerging markets.

As divergence and fragmentation increase, banks could face much higher compliance costs and become less able to predict regulatory impacts on performance and profitability. This publication examines the challenges of today's environment and offers a **divergence-resilient approach** to the growing regulatory complexity and uncertainty. The challenges associated with regulatory divergence present strategic, operational, and technological questions, specifically around three urgent issues:

- The effect of divergence on business model sustainability and managers' ability to make well-informed regulatory and business decisions.
- How divergence will increase the cost and complexity of regulatory processes, and whether bank governance, structure, and controls can cope with these demands.
- How divergence will intensify pressure on bank data management systems and could help make the case for additional information technology investments.

The capabilities, flexibility, and foresight gained through a divergence-resilient approach can help bank officers and directors deal with regulatory demands, improve commercial decision-making, and create more sustainable business models. Deloitte's Risk Advisory professionals around the world are ready to help you explore the potential of divergence resilience and show how risk can power performance.

To learn more, please visit us at www.deloitte.com/regulatoryrisk.

Regards,

Sam Balaji
Global Risk Advisory Business Leader

Contents

Executive summary

Since the Pittsburgh G20 Summit in September 2009, banking regulators around the world have been committed to strengthening capital, liquidity, and leverage standards for banks. This agenda is very well known. Embedded within it has been an equally strong commitment to address the unevenness and complexity of the global capital framework for internationally active banks. Regulatory convergence initiatives such as Basel III and the Financial Stability Board's (FSB) work on resolution regimes set the tone for an increasingly consistent banking rulebook in most jurisdictions.

This drive to promote **regulatory convergence is now under pressure**. Almost ten years on from the onset of the financial crisis, and with governments keen to stimulate economic growth, "regulatory fatigue" seems to be setting in and several countries are questioning the necessity of adopting additional common global regulatory standards for the banking sector. In particular, the European Union (EU) has recently shown an increased willingness to deviate from the standards set by the Basel Committee on Banking Supervision (BCBS), while the US is signaling a renewed appetite to use home-grown regulatory approaches.

A changing political landscape—or what we have previously called "macro-policy uncertainty"—will likely have important effects as well. In the coming years, regulators and firms will continue to confront the implications of a powerful but still poorly-understood trend towards populism and protectionism in many electorates across both developed and emerging markets.

In short, the global regulatory landscape for banks looks set to **become increasingly divergent** and fragmented.

Why internationally active banks should be concerned

These developments, left unchecked, will have very real implications for banks with substantial operations in multiple jurisdictions. Instead of being able to draw a line under the completion of the post-crisis regulatory agenda, the inconsistencies arising from jurisdictions charting their own courses risk **substantially increasing the costs of compliance** for these banks and reducing the predictability of regulatory variables on their performance.

All this is occurring when many banks are struggling with their profitability and the continuing high costs of regulatory compliance. They are also seeking ways to ensure that their business models are sustainably "future-proofed" for both commercial and regulatory challenges. Regulatory divergence will complicate these efforts as senior decision makers grapple with having "too many regulators to manage" without the resources and preparation to do so efficiently. Ultimately, without an investment in regulatory strategy capabilities, some banks may **suffer a form of strategic paralysis** as the cumulative impact of regulation and the dynamics of the binding constraints it creates become harder to understand.

We see the challenges associated with regulatory divergence giving rise to three types of questions that the management and boards of internationally active banks should consider urgently.

Strategic: does divergence affect the sustainability of business models and the ability of managers to plan and make well-informed regulatory and business decisions?

Operational: will divergence increase the complexity and costs of regulatory processes and are bank governance structures, controls, and regulatory capabilities up to the task of coping with this complexity?

Technological: how will divergence multiply the pressure on banks' data management systems and do these challenges enhance the case for making additional IT capability investments?

What a strategic approach looks like

These strategic, operational, and technological considerations, in our view, strengthen the case for banks to make targeted investments now to enhance regulatory strategy capabilities in order to better deal with this increasingly fragmented environment.

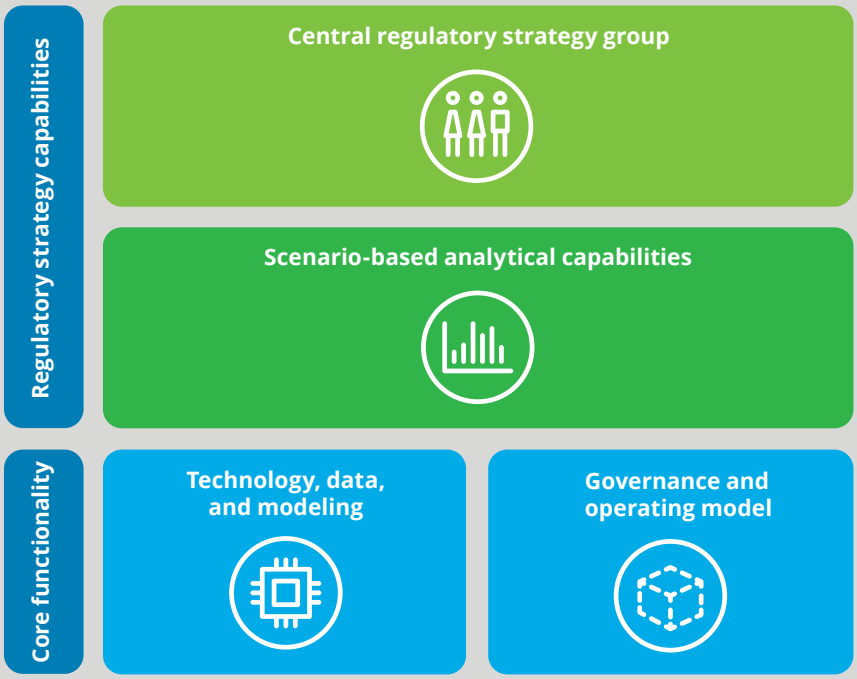
In this paper we put forward a **divergence-resilient approach to regulatory complexity**, using risk management for capital and liquidity as a case study to explore the capabilities banks can develop. We believe that regulatory technology (or "RegTech") which is becoming increasingly available now, can allow for the design of such a divergence-resilient approach to be done flexibly enough to control for the uncertainty around rules that are still being developed. As part of this, there are a number of capabilities that banks can develop or extend to support ongoing regulatory processes, most notably stress testing and capital planning.

For most banks, this will require a significant re-thinking or acceleration of changes to their regulatory operating model that could only be implemented over several years. Such a model, however, would not only help enhance the functionality of banks' regulatory processes, but also transform the way that they **integrate regulatory and commercial considerations** – what we see as the heart of "regulatory strategy." This will allow them to manage regulatory operations more centrally, embed the multiple demands they face into routine scenario planning, and produce more meaningful information to enable better business decisions.

In order to support the development of regulatory strategy capabilities, the core elements of the divergence-resilient approach that we propose include:

- Making targeted investments in technology, data, and modeling to allow for regulatory processes to be conducted more rapidly and cost-efficiently.
- Aligning governance structures around regulatory processes to support greater flexibility and functional integration.
- Developing a new or enhancing an existing **central regulatory strategy group** with the mandate and analytical capabilities to assess the impact of existing and prospective regulatory requirements (and related divergence) on business strategy and profitability.

A divergence-resilient approach to managing regulatory complexity
(see page 12 for a full description of the approach)



For most internationally active banks, maximising profitability while also contending with multiple regulatory constraints on the allocation of capital is an increasingly challenging task. Combined with the growing imperative of reducing costs, the temptation to take a piecemeal or tactical approach to regulatory management, as opposed to an integrated and strategic one, is strong. However, given the trend towards regulatory divergence, we believe that a minimalist approach could set banks on a medium-to-long term course towards incurring higher costs arising from an increasingly complex regulatory landscape. Instead of viewing regulatory spend as a "deadweight" cost, **the most successful response will include identifying high-return capability enhancements** and finding an effective way to integrate regulatory and commercial thinking in order to reap a clear business dividend from any investment.

Increasing divergence

Global regulatory convergence under strain

Internationally active banks have always had to deal with a complex regulatory landscape of tailored national procedures and international rules being applied differently in various jurisdictions. The post-crisis push towards a stronger set of common international standards for banks and other financial firms made progress in standardising the rules that a large bank has to comply with wherever it operates.

While undoubtedly much has been achieved, recent developments appear to show this effort faltering. Although, in the past, the EU has been prepared to amend international standards to reflect European specificities, the European Commission's recently proposed review of the Capital Requirements Directive and Regulation (CRD V/CRR II) demonstrated a **growing willingness to depart from implementing global post-crisis banking rules** either in full or on time. This was particularly seen with the proposed implementation of the BCBS's Fundamental Review of the Trading Book (FRTB) (see Box 1) and the Net Stable Funding Ratio (NSFR).

In the United States, both the Trump Administration and the US Congress have begun regulatory and legislative efforts to re-work financial regulation. These initial activities have prompted questions about the continued adherence of the US to post-crisis international regulatory standards. In the UK, Brexit raises the longer-term possibility of rules eventually differing between the UK and the EU27. This could conceivably become the case if a post-Brexit UK displays more interest in applying BCBS standards in full even as the EU opts to implement them with a number of deviations.

What kind of divergence do we see?

When implementing international standards agreed at the BCBS, Financial Stability Board (FSB) or in other fora, national regulators can diverge from those standards, or from each other, in at least two broad ways:

- **Divergence in timing:** where regulators implement rules substantially later than the target dates set out by global standard setters or apply a transitional or phase-in treatment.
- **Divergence in substance:** where regulators implement rules that are materially different (including discounting and/or gold-plating) from the standards set by international authorities. Supervisory regimes in jurisdictions (e.g. stress testing) can also give rise to important differences in how regulations are applied in practice.

Dual divergence

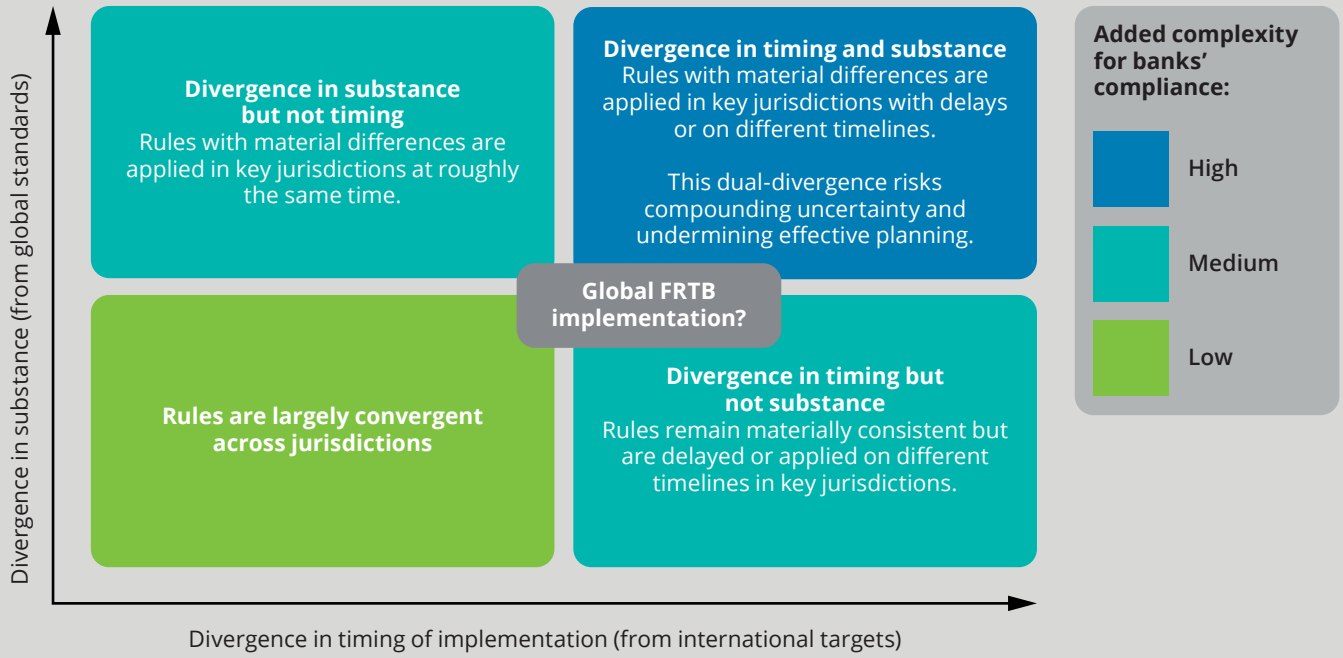
While a reasonably high level of divergence is, and will remain, a fact of life in the implementation of international regulatory standards for the banking sector, we have recently seen growing divergence in **both timing and substance** in the implementation of critical post-crisis rules (see Box 1). This dual divergence will become increasingly problematic for internationally active banks as it creates significant complexity in regulatory calculations, change management, and effective planning. This compounds the regulatory uncertainty banks will face in understanding a standard's final effect on an aggregate and product-by-product basis (see Figure A). This will place additional demands on already pressured teams responsible for risk, capital and liquidity management and regulatory change, as well as increase the likelihood of execution stretch in a bank's response to new regulation.

This trend, in our view, is likely to continue through the implementation of the rest of the Basel agenda. We believe that capital output floors, for instance, may become a clear target for divergence when eventually agreed by the BCBS. When EU legislators move to write output floors into EU law (potentially as part of a "CRD VI/CRR III" package), we see a strong likelihood that their internationally-set calibration, or their possible phase-in period, will be scrutinised and modified to reflect European specificities.

Regulatory responses to divergence

One important aspect of divergence is that it can be self-accelerating. As we can observe from recent examples, the more fragmented the global framework becomes, the greater the pressure we see on regulatory cooperation and the reliance that is placed on local implementation of standards in foreign jurisdictions. Losing trust in this way can result in regulators placing even greater restrictions on the operations of third country banks in their jurisdictions, including the ring-fencing of capital and liquidity. This creates a form of regulatory divergence of its own, more a symptom than a cause, but one that can be equally damaging for a bank's ability to operate efficiently across borders.

Figure A. How regulators can diverge from international standards in their implementation



1 FRTB in CRR II: Signaling more divergence in the implementation of the Basel agenda?

The BCBS finalised the FRTB in January 2016, setting a target period for implementation beginning in January 2019 and applying in full from 1 January 2020.

The European Commission's proposed market risk rules (FRTB implementation) in CRR II demonstrated an increased willingness among EU officials to depart from BCBS standards in both timing and substance. Although we understand that some EU countries currently oppose the Commission's proposal, if it is adopted as proposed it would diverge from the BCBS's FRTB in several ways, including:

- Missing the BCBS's 2019-2020 implementation target. Our view is that CRR II will not be able to be applied any earlier than Q1 2021.
- Discounting risk weights under the market risk framework by 35% for three years after application (extendable indefinitely by a Delegated Act from the Commission).
- Modifying various elements of the Sensitivities-Based Approach to give a favorable treatment to EU sovereign assets.
- Setting rules for recording of risk factors determining the Non-Modellable Risk Factor (NMRF) charge that appear materially more stringent than the BCBS standards.

In the US, the pace of work by the Federal Reserve Board (FRB) on FRTB implementation has slowed under the new Administration, and a consultation on the design of the US implementation of FRTB is now not expected until 2018. A recent report by the US Treasury Department has recommended that US authorities delay the implementation of the FRTB beyond the 2019–2020 target in order to conduct further study into its potential market impact.[1]

The Australian Prudential Regulation Authority (APRA) has also indicated that it does not envisage finalising and implementing the FRTB until 2020 at the earliest.[2]

At the time of writing, the Japanese and Swiss regulators have both signaled their intention to implement the FRTB according to its original 2019-2020 timeline. It is debatable, however, whether this will remain the case given the approach adopted in the EU and the US.

"A decade after the start of the crisis, an element of reform fatigue is understandable. But giving into it would mean that essential standards are neither completed nor fully implemented. This could erode our willingness to rely on each other's systems and institutions and, in the process, fragment pools of funding and liquidity, create inefficiencies and frictions, reduce competition, and diminish cross-border capital flows."

Mark Carney, FSB Chair, Letter to G20 Finance Ministers and Central Bank Governors, 17 March 2017[3]

Challenges and considerations for firms

How does regulatory divergence differ from regulatory change?

Banks are among the first to feel regulatory fatigue. The costs and business restrictions, placed on them by post-crisis regulation, have challenged their capacity to respond and undermined their profitability.

It follows from this that a growing willingness by some regulators to ease the application of new capital and liquidity requirements could bring real benefits, particularly to those banks with the bulk of their operations in the easing jurisdiction.

However, for internationally active banks, with substantial operations in a number of different countries and regions, the benefits are less straightforward.

These banks have to ensure their compliance with rules in many different jurisdictions and design a way to do so efficiently through often highly complex legal entity and governance structures. This comes as many banks are feeling rising cost-pressures from having a global footprint and need to take forward-looking decisions about the entry into or exit from geographies and business lines. Such decisions must be informed by a clear picture of economic profit and cost, for which the costs of capital and funding, as well as compliance, have all become increasingly decisive variables.

Regulatory change has always been a strategic and operational challenge for banks. Nevertheless, our message here is simple; if the trend towards increasingly fragmented rules holds among key jurisdictions **regulatory divergence will become a much greater cost-driver**.

The added level of complexity created by regulatory divergence, particularly the dual divergence of both timing and substance, will likely act as a multiplier on the costs and challenges already associated with more manageable levels of regulatory change. This will, in turn, put substantial pressure to increase headcount, will demand more cumbersome processes requiring more frequent manual intervention, and can complicate the understanding of the future state capital, liquidity and risk environment.

Strategic paralysis

The trend towards regulatory divergence between key jurisdictions that we have observed so far, and expect to continue to see in the coming years, poses two types of challenges for banks:

- **Strategic planning challenges:** less predictability about the final impact of national or regional rules (while relying on international standards as a point of reference) creates uncertainty about the aggregate cost of regulation and the dynamics of binding constraints. This in turn, makes it more difficult to assess the profitability of products and customers, as well as business entry and exit decisions.

- **Compliance and operational challenges:** increasingly divergent rules, procedures, phase-ins, and transitional measures in different jurisdictions make the regulatory compliance process more complex, prone to error, demanding, and ultimately more costly in the long-run. We see this particularly affecting risk management and reporting activities, including model development and validation, but also extending to legal entity structures and resolution planning procedures.

Taken together, these challenges make the optimal path forward difficult to ascertain and have already prompted many banks to take a more **piecemeal, tactical, and disaggregated approach** to their regulatory efforts, including adopting a "wait and see" approach to rules that have not yet been finalised. This does reduce costs in the short-term, and could even spare a bank a large amount of work in the event that new regulatory standards fail to be agreed.

Nevertheless, this approach misses a crucial opportunity that banks have to develop enhanced regulatory strategy capabilities that will place them in a much better position for the long term. The optimal regulatory and technological window for banks to make a targeted and high-return investment is here, and especially apparent in the upgrading and integration of a bank's scenario modeling capabilities. Missing this opportunity may undermine a bank's ability to generate forward-looking regulatory insights that allow for better strategic decision-making for each business line and the firm as a whole. We believe this approach **could eventually result in a significantly increased risk of strategic paralysis** for banks as they struggle to assess the cumulative impact of regulation on the profitability of their products and services, operate without a clear understanding of their costs and binding constraints and, as a result, are less well equipped to make the best business and resource allocation decisions.

Considerations prompted by regulatory divergence

As a first step in avoiding this strategic paralysis, we believe that the boards and senior managers of banks should ask themselves a number of questions focusing on the strategic, operational, and technological implications of the trend towards greater regulatory divergence.

2 Strategic, operational, and technological considerations of regulatory divergence

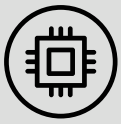
Strategic

- Do we take a strictly legal jurisdiction-by-jurisdiction approach, or should we be early adopters of international standards? (Will rating agencies and investors in any case drive us to take a "fully loaded" view?)
- Have our impact assessments fully understood the capital and funding cost impacts of proposed rules across our businesses taking into account a sufficiently granular view of the potential differences in their implementation?
- What is the interplay between consolidated capital and liquidity requirements and processes in our home jurisdiction and the sub-consolidated capital and liquidity requirements and processes of our foreign subsidiaries? Does increasing regulatory divergence make this interplay more or less efficient for us?
- What kind of information about regulatory divergence does our management/board need to make better business decisions about deploying our resources?

Operational

- Do we have a clear idea how divergence might increase the complexity of our regulatory processes and the effect of applying new rules?
- What does divergence mean for our compliance with reporting and disclosure requirements across the jurisdictions we operate in?
- Are we putting in place sufficient resources and an effective governance structure to manage these added compliance and reporting challenges?

Technological



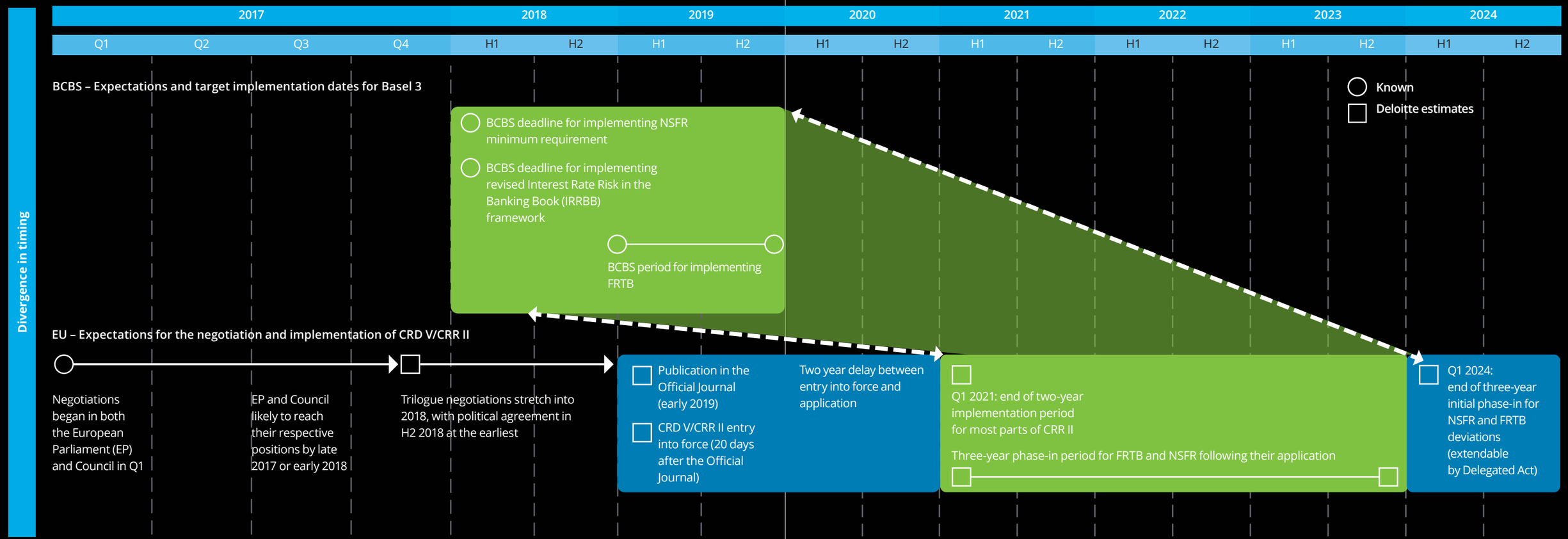
- How much does regulatory divergence multiply the already significant increase in data management, storage, and calculation capabilities that components of the remaining elements of Basel III will demand?
- Are our current systems equipped to deal with the increasing complexity of data management, risk measurement and reporting, and how can our investments in these systems be "future proofed" for divergence?

"Departures from the global minimum standard can also be costly for banks as they are required to tailor their IT systems and risk management for each jurisdiction in which they operate. While a departure may provide short-term financial relief, this "benefit" is only transitory as it does nothing to enhance the bank's long-term resilience. Indeed, over the longer term, a departure from the minimum Basel standards can damage the bank's long-term viability, reduce confidence in the banking system and have adverse effects on economic development and growth."

Bill Coen, Secretary General of the Basel Committee on Banking Supervision, May 2017[4]

Dealing with divergence | A strategic response to growing complexity in global banking rules

Recent examples of regulatory divergence in bank capital, liquidity, and structural requirements



Divergence in substance

Resolution regimes
The international response to the "Too Big To Fail" (TBTF) problem is perhaps the high water mark of recent regulatory convergence. In 2011, the FSB published "The Key Attributes of Effective Resolution Regimes for Financial Institutions" which set out the core elements of a resolution framework for its members to implement.

By March 2016, a significant subset of the FSB membership had established resolution frameworks that aligned to the Key Attributes. However, examples of regulatory divergence in the TBTF agenda are already becoming apparent.

In bank structural reform, the UK ran ahead of the EU and designed an approach to "retail ring-fencing" that differs significantly from what has emerged as the preferred EU model for enhancing bank resolvability.

More recently, signals from the Trump Administration and Congressional Republicans in the US on the Dodd-Frank Act may point to a fundamental rethink of the US approach to systemic bank failures. The removal or modification of the Dodd-Frank Title II non-insolvency-based resolution regime could carry significant implications for cross-border banks and their resolution authorities.

IHC/IPU
By July 2016, large foreign banking organizations were required to place virtually all their US subsidiaries under a top-tier US intermediate holding company (IHC). The objective was to enhance US authorities' ability to oversee the operations of foreign banks.

In December 2016, the EU proposed a requirement for foreign banks operating in the EU (the similar intermediate EU parent undertaking requirement or IPU).

The IHC/IPU approach offers local authorities certain advantages, particularly with regard to the aggregate oversight of overseas banks' national or regional operations. However, as has already been seen in the implementation of the US IHC, this can impose a substantial burden on the banks to which it applies.

These developments can equally be seen as a symptom of divergence, as the trust needed to foster cross-border supervisory cooperation is undermined by regulatory fragmentation. Left unchecked, this could risk creating greater pools of trapped capital and liquidity in national jurisdictions, constraining banks' ability to allocate their resources efficiently.

Stress testing and CCAR
Although Basel III capital and liquidity requirements are more commonly thought of as the main constraints on bank balance sheets, requirements arising from the outcome of supervisory stress testing can often be the more relevant constraint.

This is particularly the case in the US, where the Comprehensive Capital Analysis and Review (CCAR) exercise is carried out on an annual basis for all US-domiciled Bank Holding Companies (including foreign banks) with assets greater than US$50 billion.

In practice, the expectations derived from the CCAR tests have evolved to become the baseline that most large banks operating in the US have to work towards. This includes a large number of process and practice-based expectations arising from the qualitative aspects of the CCAR exercise.

For many banks, this adds to the complexity of understanding the steady-state impact of capital requirements on their business and the source of binding regulatory constraints they will face.

EU deviations from the BCBS in CRR II
Besides the very significant divergence in timing that we can see between BCBS standards and the EU's proposed implementation of them through CRR II, there are also a number of notable divergences in substance here.

As noted in Box 1, the European Commission proposed to apply a 35 percent discount to the risk weights derived by the FRTB for a period of at least three years, along with giving a more favorable permanent treatment to EU sovereign assets than the BCBS approach would allow.

Beyond this, the Commission also proposed to reduce BCBS-set Required Stable Funding (RSF) requirements under the NSFR for assets arising from short-term interbank financing and some derivatives contracts – also for a period of three years.

There were notable divergences from BCBS requirements in the EU's proposed implementation of the Leverage Ratio – allowing for the deduction of initial margin received from clients for centrally-cleared derivatives from the Leverage Exposure Measure – and an extension of the EU's supporting factor for bank lending to Small and Medium-Sized Enterprises, whose initial incarnation had previously been assessed by the BCBS as being "materially non-compliant" with the BCBS standard.

A divergence-resilient approach

Investing to improve outcomes

At a time when most banks are struggling with mounting capital and liquidity management costs, a piecemeal and tactical approach to regulatory divergence may seem advisable. This, in turn, is often reflected in inefficient regulatory capabilities characterized by labour-intensive manual processes that make poor use of automation and regulatory data analytics.

A tactical approach to regulatory divergence can leave banks vulnerable to even greater costs in the medium-to-long term. Further, disparate project streams and processes across groups will likely reduce their ability to take a holistic view of their regulatory work and identify overlaps, inefficiencies and aggregate costs. This approach runs the risk of management making strategic decisions with a weak understanding of regulatory variables, as the global policy landscape becomes more complex.

What is needed instead is a **divergence-resilient approach to regulatory complexity** where banks make targeted investments to allow them to deal with the more uneven reality they are moving into. It is important for the cost savings associated with such an approach, implemented well, to generate a positive return on investment (ROI) in a relatively short time frame and provide additional cost efficiencies thereafter. It is also essential that the solutions developed as part of a divergence-resilient approach are sufficiently flexible to deal with regulatory standards or requirements that are still in flux. In this respect, we are no longer where we were at the beginning of the crisis. Whereas not long ago, the technologies available to banks necessitated the use of specific regulatory applications that could not easily be repurposed for different rules, the functionality of technology today enables the creation of much more agile solutions that can be designed earlier in the regulatory cycle and can further support the efficiency of ongoing regulatory processes such as stress testing.

As a result, a divergence-resilient approach should **fully exploit robotics and automation solutions** early on to remediate data incompatibility and reduce the cost-intensity of regulatory activities. In our experience, we have found that the use of robotics in regulatory processes can, in some instances, lead to material reductions in the need to hire additional staff and other costs. Moreover, on the medium-term technological horizon, the development of regulatory applications for distributed-ledger technologies (i.e. blockchain) are already showing the potential to reduce dramatically the time and human intervention needed to conduct regular compliance and reporting tasks.

The idea for such a model is not new, but the growing trend of regulatory divergence and the systems agility that new technology can bring strengthen the rationale for making an investment now in enhancing regulatory strategy capabilities.

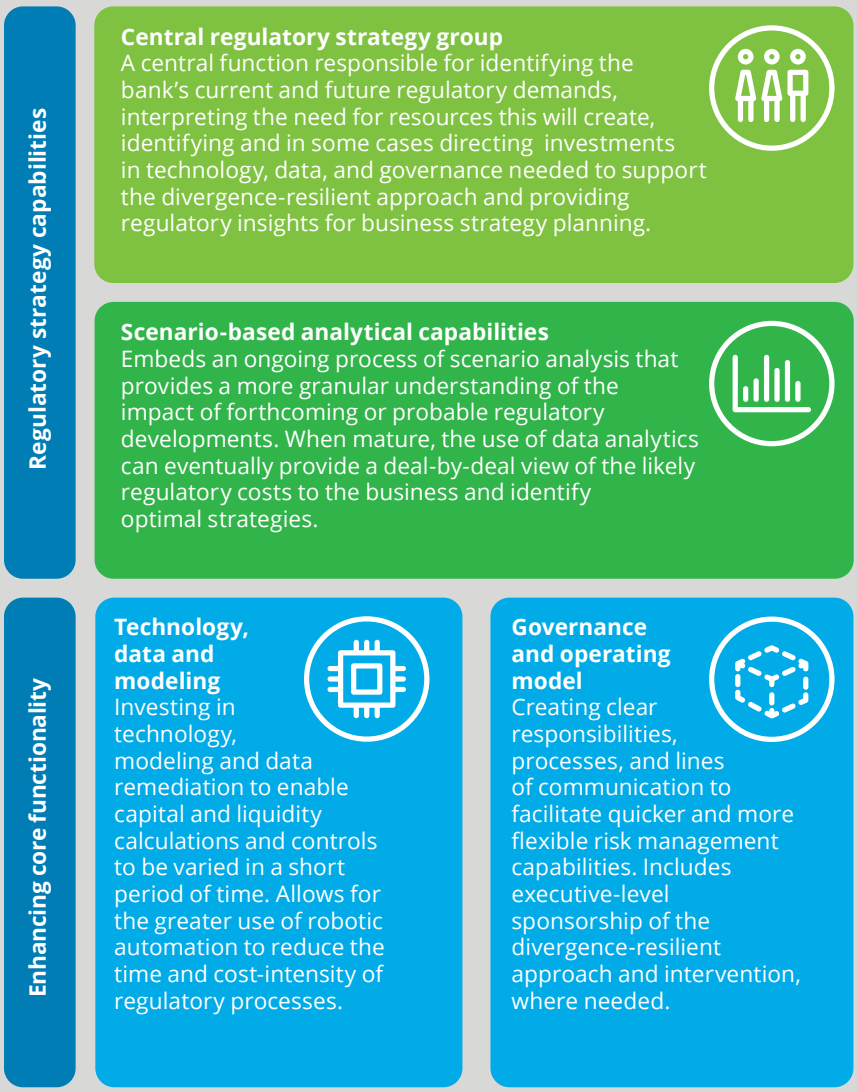
A tactical approach to regulatory divergence will leave banks vulnerable to even greater costs in the medium-to-long term and will reduce their ability to take a holistic view of their regulatory work.

A divergence-resilient approach for regulatory capital and liquidity management

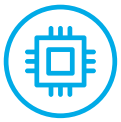
Taking risk management for capital and liquidity as a specific example, banks would realise the cost savings of this approach by putting in place an operating model that enhances their regulatory functionality and supports the development of regulatory strategy capabilities (see Figure B). In this case, each component of the divergence-resilient project supports the effectiveness of the others. The functionality and capabilities gained will allow banks to understand the aggregate effect of regulatory demands, calculate capital, and liquidity requirements more efficiently, use those outputs to understand their funding and capital costs better, and develop a more granular view of the location and volatility of the binding regulatory constraints they face. This can ultimately allow them to gain an advantage over their competitors in an increasingly challenging regulatory environment.

The functionality of technology today enables the creation of much more agile solutions that can be designed earlier in the regulatory cycle.

Figure B: A divergence-resilient approach to managing regulatory complexity



Enhancing core functionality



Technology, data and modeling
This is a prerequisite for developing the regulatory strategy capabilities needed to support a divergence-resilient approach. Here, banks should realign people, processes, technology, and data to enhance their ability to vary capital and liquidity calculations and related controls in a short period of time. As a starting point, most banks will require significant data remediation to make many new technological applications implementable across their organizations. The functional integration of risk and finance teams in some areas (e.g. treasury) must also be a central part of these efforts in order to make the consistent end-to-end management of the risk data value chain a reality. These projects will inevitably be a multi-year evolutionary process, but many banks are currently struggling to prioritise or design a comprehensive approach to them. Our view, however, is that improved data quality and systems capability is even more imperative than ever as it will eventually allow for many risk measurement activities to be supported by a greater use of robotic process automation, algorithms, and cloud-based outsourcing to shared platforms, in place of in-house manual processes.

In the near-term, there are clear opportunities in enabling a more modular approach to the measurement of capital and liquidity requirements to simultaneously run the same calculation under various sets of rules. As a bank's technological functionality becomes more mature, systems could eventually allow for analysis of capital, liquidity, and leverage requirements to be undertaken on a near-real-time basis, taking into account variables including jurisdictions, permissions, timescales, and stress scenarios. This is already an industry leading practice for stress testing, and we believe many banks could benefit from extending this to the full range of their capital planning activities. The shorter time needed to calculate capital requirements using both standardised and internal ratings-based (IRB) approaches, and to make necessary adjustments, would allow for calculations to be run and re-run at any time in order to enrich the understanding of costs and other regulatory variables in a more time-and cost-efficient way.

Any effort to enhance the functionality of a bank's RegTech resources must also take advantage of where new technologies enable routine but time-intensive processes, such as regulatory reporting, to be automated. The example given in Box 3 demonstrates how blockchain can be leveraged to substantially improve the efficiency and cost-intensity of the Liquidity Coverage Ratio (LCR) report generation process.

As a bank's technological functionality becomes more mature, systems could eventually allow for analysis of capital, liquidity and leverage requirements to be undertaken on a near real-time basis.

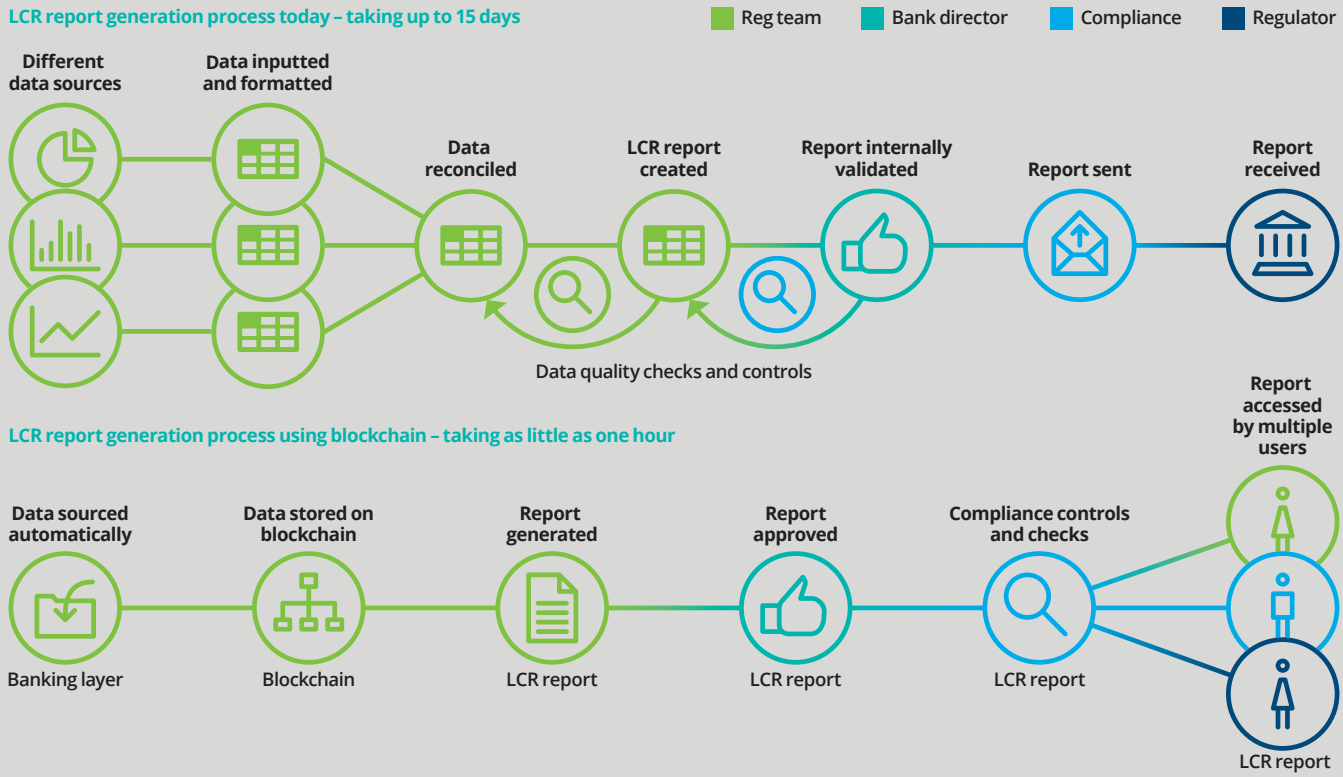
3 Leveraging blockchain to enhance regulatory reporting processes

One example of how banks can eventually take advantage of technological advancements to facilitate regulatory compliance is in the use of blockchain for reporting. **Deloitte's EMEA Blockchain Laboratory** has developed a Proof of Concept[5] platform that promises to enable banks to use blockchain to store and validate liquidity data and to generate LCR reports more efficiently on a daily basis with a full audit trail that is transparent to supervisors. While this technology is still under development, it is quickly progressing towards being a functional tool for banks and supervisors to use in their reporting activities.

This would replace what is currently a largely spreadsheet-based manual exercise that can take various functions in a bank up to **15 days** to produce a single report (see illustration below). Using a blockchain-based platform that automates the report generation process from liquidity data stored on a blockchain, and provides easier access to information needed to validate and approve the report, an LCR report could, in some circumstances, be created in as little as **one hour**.

While the use of blockchain does not itself solve problems with the consistency of data sources across a bank, it does provide a single input format and a platform that can gradually be enabled to source data automatically from various areas. This can play a key role in supporting broader data remediation work that is widely needed to enable the more centralized use of RegTech solutions in banks.

From a regulatory divergence perspective, the proliferation of different capital and liquidity requirements and reporting templates multiplies the already resource-intensive regulatory reporting work for banks. Using RegTech solutions such as a blockchain-based platform for LCR can help banks deal much more efficiently with challenges such as the need to use 15 different LCR reporting templates and processes in 15 different countries. More broadly, RegTech is a promising avenue for firms to be able to deal with the increasing complexity of cross-border regulatory compliance, while at the same time doing so on a much simpler, integrated and cost-efficient basis.



Enhancing core functionality

Governance and operating model
Banks must also ensure that their governance structure can efficiently manage the processes essential to the functioning of any divergence-resilient approach. In our experience, regulatory change and risk management can often have many "owners." We have also seen varying methods across business lines, functions and geographies who often approach the same issue with different perspectives or speaking different business languages. Although these practices may have evolved naturally over many years, including in response to post-crisis regulatory demands, being resilient to a more divergent regulatory landscape will often demand substantial organisational change.

To implement this operating model effectively, banks need to translate the vision of a divergence-resilient approach into a clear design with well-defined responsibilities and lines of communication across the group. Functions responsible for regulatory strategy capabilities must also be appropriately aligned with existing capital planning and stress testing teams. In order to make greater use of modeling capability, most banks will need a more comprehensive firm-wide model-risk management framework in order to strengthen model governance and validation processes. This should include, for instance, streamlining the procedures in place to have senior management quickly deliver judgement-based decisions on regulatory capital models where the necessary data is not clear or available.

A more coordinated approach must also encourage widely applicable standards for the consistent execution of procedures that feed into risk management and modeling work. Our view is that this is particularly urgent for data management and for improving the production, aggregation, and dissemination of model results across the global group network.

This approach requires extensive board and executive engagement in regulatory strategy activities. Given the resource-constrained state that compliance and risk leaders currently face at many banks, the "buy-in" and strong sponsorship of senior leadership will be critical for a divergence-resilient approach to succeed. Secondary benefits for senior management and the board risk committee that should strengthen the case for their support include allowing more rapid and accurate responses to their requests for ad hoc impact analysis on how investment/divestment decisions will affect the capital and liquidity position of the bank. By setting a clearer "tone from the top" that can carry across a global group the board and senior management can help to break through the silos and entrenched views that so often complicates the adoption of a more complete and responsive approach to regulatory strategy.

Regulatory strategy capability

Central regulatory strategy group
Developing a new or enhancing an existing central regulatory strategy group early on will form the nucleus of implementing and running a divergence-resilient approach. This group can support a bank's ability to build a consolidated view of the regulatory demands it will face across business lines and geographies and can interface with risk, capital planning, and strategy functions to ensure that there is a "single version of the truth" in terms of the expected impact of a proposed or new requirement on the business.

While regulatory management will often sit in-country, there is nevertheless a strong case for having a central team responsible for taking a top-down view of impacts and determining the optimal response. In this, banks will not be starting from scratch, but our view is that central regulatory monitoring groups still need to evolve and be empowered by a clear mandate to work with business line planning functions to direct change across the organisation. This group, for instance, would be responsible for owning the design and oversight of the project roadmap towards realizing the divergence-resilient approach and identifying the investments in data, technology and modeling needed to achieve it. If banks are to challenge the substance of the status quo, they will need to grant this team a high level of influence within their organisations, including the authority to direct governance and operating model changes in order to support the build out of advanced regulatory capabilities and rapid decision-making.

Regulatory strategy capability

To carry out its role effectively, a central regulatory strategy team must draw on deep expertise in ongoing regulatory and legislative developments and their likely outcomes. For the management of risk and financial resources, this group would be able to provide an early warning function for the bank where gaps in capabilities or capacity might emerge due to new regulatory requirements. This team would also be best placed to identify functional overlaps or potential synergies in regulatory and risk management activities across the bank whose alignment could present opportunities for cost-reduction or the adoption of best practices. The most sophisticated regulatory strategy groups will work closely with risk, finance, planning, and other functions to define the bank's optimal capital and liquidity strategy and then help to identify the most effective ways to implement it.

Scenario-based analytical capabilities
Having fast, agile, and comprehensive risk measurement processes are themselves insufficient to generate the cost efficiencies we have identified. Banks need to leverage this added functionality with the capability to routinely analyse scenarios based on known or hypothetical regulatory outcomes derived from stronger intelligence on regulatory developments and a view on how their competitors will react to them. These are the capabilities that will allow the central regulatory strategy group and related functions to run impact assessments on an increasingly broader set of scenarios giving a much more granular picture of costs and client profitability.

Analyzing this scenario-based data on constraints and costs across the jurisdictions they operate in can enhance regulatory and business decisions alike. For instance, a better understanding of the likely capital impact of new or forthcoming rules can help banks more accurately assess the economics of building internal models for certain asset classes as opposed to using standardised approaches (see FRTB example discussed in Box 5).

At the more mature end of the journey towards becoming divergence-resilient, advanced data analytics and a more sophisticated use of cognitive and big data applications could eventually allow for the integration of these scenario outputs into a robotically-automated system that generates detailed regulatory insights for front office functions. This would help firms make routine business decisions with a stronger deal-by-deal view on the capital and funding costs, and other regulatory variables affecting customer profitability. From a more top-down perspective, this analysis can allow for a clearer view on which business lines are sufficiently resilient to regulatory change to form part of a sustainable overall business model going forward.

Synergies with non-discretionary regulatory work

Implementing a divergence-resilient approach cannot be done in isolation from other regulatory compliance projects running in parallel. The reality is that, despite the uncertainty created by regulatory divergence, banks must still undertake significant compliance work now to deal with regulatory requirements and supervisory expectations that have already been put in place. The most effective way for a bank to realise cost-efficiencies from the approach recommended in this paper will most likely be to leverage the synergies between the implementation of such an approach and various pieces of ongoing non-discretionary regulatory work.

For the case study of risk management for capital and liquidity, there are **clear synergies with the work banks are doing to comply with the BCBS 239 principles** on risk data aggregation and reporting. Banks need to make improvements to their data infrastructure, information management practices and decision-making procedures related to managing data on risk exposures. This is a clear opportunity to align these efforts with a greater use of scenario-planning for capital and liquidity requirements, data analytics and automation to support deal-by-deal business decisions, stronger management information and better strategic decision-making on the allocation of resources across the business.

A more functional and flexible set of capabilities for the measurement of risk will also allow a bank to manage the supervisory stress-testing cycle with substantially fewer resources and manual inputs. Given that stress testing regimes are becoming increasingly idiosyncratic in many of the main banking jurisdictions (particularly in the US), the demand multiplier effect of these exercises on a bank's capabilities can be partly absorbed by the enhancements realised through the new approach.

The ROI of regulatory spend

The ROI needed to implement a divergence-resilient approach to risk management and regulatory compliance more generally will be broader than just cost-efficiencies and time savings achieved from better managing increasingly varied requirements. The full ROI realized from a divergence-resilient approach will come from the regulatory strategy capabilities that are developed and what these will allow a bank to do.

Earlier in the paper, we set out a number of considerations that management and boards should take into account when assessing the impact of regulatory divergence on their businesses (Box 2). The ROI of adopting a divergence-resilient approach is fundamentally about providing a bank's officers and directors with the tools to answer these questions on the strategic, operational, and technological challenges of a more fragmented regulatory environment. Box 4, opposite, sets out the specific benefits that we see a divergence-resilient approach enabling, aligned with the questions asked earlier.

4 How does a divergence-resilient approach equip a bank to deal with regulatory complexity?

Strategic benefits

- Allows for modeling the impact of scenario-based regulatory outcomes to gain a granular and more comprehensive understanding of their impact across the business.
- Strengthens the ability to pursue capital and funding optimisation strategies informed by a clearer view of the interplay between regulatory requirements set for parents and foreign subsidiaries.
- Provides the ability to analyse the long-term capital and liquidity impact of strategic business decisions such as growing a portfolio or exiting a business.

Operational benefits

- Absorbs much of the reduction in operational efficiency that growing regulatory fragmentation could have had on regulatory, compliance, and related business processes.
- Facilitates the ability to comply with different reporting and disclosure requirements across jurisdictions in a cost-efficient way and with minimal disruption caused by inconsistent procedures and other coordination failures.

Technological benefits

- Leverages synergies with non-discretionary compliance work (including with BCBS 239) to remediate data management deficiencies and to support the greater use of robotic automation in the modeling process.
- Puts a bank in better position to be able to adopt on-the-horizon RegTech capabilities to reduce the time and cost-intensity of routine regulatory tasks.
- Uses data analytics to take more granular and scenario-based data on the impact of regulatory requirements and translate them into usable information for front office functions to inform deal-by-deal decision-making.

The ROI of adopting a divergence-resilient approach is fundamentally about providing a bank's officers and directors with the tools to answer questions on the strategic, operational, and technological challenges of a more fragmented regulatory environment.

5 FRTB implementation under a divergence-resilient approach

Current challenges in FRTB implementation
As discussed in Box 1, the adoption of the BCBS's FRTB standard is becoming one of the most acute areas of regulatory divergence as banks are having to cope with highly uncertain implementation processes. Particular aspects of divergence which are presently challenging banks include the:

- Uncertainty of implementation timing in key jurisdictions, compounding uncertainty around the finalisation of secondary technical standards, and the time available for supervisors to evaluate internal model applications;
- Potential for phase-in discounts to be applied (as proposed in the EU), potentially altering the economics of adopting standardised as opposed to Internal Models Approaches;
- Uncertainty around how national regulators will respond to the BCBS's guidance on **P&L attribution** and model back-testing (the European Banking Authority has already indicated that it feels it needs to "reboot"[6] the BCBS rules); and
- Potential for materially different regulatory interpretations of FRTB rules, including standards for recording risk factors determining the applicability of the NMRF charge (already an area where the EU's CRR II appears to have set a higher bar).

In addition, it is clear that FRTB implementation is becoming a **massive cross-functional exercise in most banks**, with project teams and working groups operating across functions in a way that is not often as fully coordinated as it could be. This can lead to inefficiencies in how a bank adapts its systems, policies, procedures, and controls in order to prepare for the new market risk approaches.

Using a divergence-resilient approach for FRTB implementation
The FRTB provides a good example of where adopting a divergence-resilient approach—enhancing underlying core functionality and regulatory strategy capabilities—can serve the dual purpose of being better able to deal with a more fragmented cross-border regulatory landscape and also ensuring more effective compliance management throughout a difficult transition process.

A key success factor in this approach is whether a bank can develop a sufficiently strong ability to **model the impact of still uncertain market risk requirements across its trading desks**. The most successful banks will then leverage this added modeling functionality with regulatory foresight and a greater use of analytics to support granular scenario-based analysis of the likely outcome of rules currently under development. Such an exercise should support a stronger view for senior management of how the impact of the FRTB will differ across jurisdictions, particularly if that jurisdiction has materially deviated from the BCBS framework.

This integration will allow for much better informed decisions on the use of standardised approaches, creating, and seeking approval for the use of Internal Models Approaches or (in all likelihood) the optimal mix of both approaches across different trading desks.

A more centrally coordinated approach across geographies, functions, business lines, and legal entities will, in addition to enhancing the effectiveness of the scenario analysis and desk structure optimisation mentioned above, also allow a bank's board and senior management to understand the resource demand of FRTB implementation better, more efficiently align the activities of functions and project streams focused on its adoption, and address any gaps when they arise. It will further allow management to implement more effective standards across their groups in areas such as data governance, where improvements are likely to be needed.

While FRTB implementation is already challenging for internationally active banks in normal circumstances, being divergence-resilient in a world of increasing regulatory fragmentation is particularly crucial in order to avoid sub-optimal regulatory and business decisions.

Thinking further ahead

The implementation of international regulatory standards for banks has always been uneven and complex. The recent trend of growing regulatory divergence, however, stands to multiply this complexity and add substantial medium-to-long term costs to the regulatory price of doing business for many internationally active banks.

Greater divergence from the G20's post-crisis regulatory reform agenda, including Basel III and other initiatives, also risks undermining the confidence that regulators and supervisors have in each other's efforts to manage risk in the banking sector. As a result, **reduced trust between a bank's home and host supervisors** could cause hosts to take further measures to ring-fence the capital and liquidity resources of banks in their jurisdictions. This has already been seen with the IHC requirement for foreign banks operating in the US and the EU's similar IPU proposal. Echoing these concerns, the UK's Financial Policy Committee recently observed that "absent the consistent implementation [of regulatory standards] internationally and appropriate supervisory cooperation, we would need to assess how best to protect the resilience of the UK financial system" [7]. These developments run a strong risk of **creating greater trapped pools of capital and liquidity** and more onerous recovery and resolution planning procedures for banks' foreign operations.

Banks need to consider how these developments—both current and potential—will affect their businesses and investment priorities. Most importantly, they need to avoid backing themselves into a state of strategic paralysis by adopting an excessively tactical and piecemeal approach that reduces their ability to take a holistic view of regulation and to understand the effects that it will or might have on the sustainability of their business models.

Developing regulatory strategy capabilities to deal with this will be neither simple nor cheap. But regulatory spend to enable more efficient capital and liquidity management should not be viewed as a "deadweight cost" that adds little value to the broader business. It is clear that regulation has emerged as one of the most decisive variables for a global bank's profitability since the financial crisis. The capabilities, flexibility, and foresight gained through a divergence-resilient approach to dealing with regulatory fragmentation can support commercial decision-making and ultimately contribute to the creation of a more sustainable business model. From this perspective, we consider that the case for such an approach, generating a positive ROI, to be made. An increasingly uneven and unpredictable global regulatory environment underlines the urgency.

The capabilities, flexibility, and foresight gained through a divergence-resilient approach to dealing with regulatory fragmentation can support commercial decision-making and ultimately contribute to the creation of a more sustainable business model.

Endnotes

1. U.S. Department of the Treasury, A financial system that creates economic opportunities, June 2017, https://www.treasury.gov/press-center/press-releases/Documents/A%20Financial%20System.pdf
2. Australian Prudential Regulation Authority, APRA's review of prudential requirements for traded market risk, March 2017, http://www.apra.gov.au/adi/Publications/Documents/170321-letter-to-ADIs-FRTB.pdf
3. Chairman's letter to G20 Finance Ministers and Central Bank Governors, Financial Stability Board, 10 March 2017, http://www.fsb.org/wp-content/uploads/FSB-Chairs-letter-to-G20-FMCBG-March-2017.pdf
4. William Coen, "Regulatory equivalence and the global regulatory system", keynote address at the International Financial Services Forum, London, United Kingdom, 25 May 2017, http://www.bis.org/speeches/sp170525.htm
5. Deloitte EMEA Blockchain Hub, Blockchain: the technology that's changing the rules, https://www2.deloitte.com/ie/en/pages/technology/solutions/grid-blockchain-lab.html
6. The P&L attribution mess, Risk.net, Aug 2016, http://www.risk.net/risk-management/market-risk/2466633/the-pl-attribution-mess
7. Financial Stability Report, Bank of England, June 2017, http://www.bankofengland.co.uk/publications/Documents/fsr/2017/fsrjun17.pdf

Deloitte has been widely recognized as a market leader, including these recent independent analyst reports:

Deloitte named a leader in Regulatory Compliance Program Consulting, based on breadth and depth of capabilities by ALM Intelligence
Source: ALM Intelligence; Regulatory Compliance Program Consulting 2017;

Contacts

Center for Regulatory Strategy global leadership

Kevin Nixon
Global & Asia Pacific Leader
Center for Regulatory Strategy
Deloitte Australia
+61 2 9322 7555
kevinnixon@deloitte.com.au

David Strachan
EMEA Leader
Center for Regulatory Strategy
Deloitte UK
+44 20 7303 4791
dastrachan@deloitte.co.uk

Christopher Spoth
Americas Leader
Center for Regulatory Strategy
Deloitte US
+1 202 378 5016
cspoth@deloitte.com

Other contacts

Tony Wood
Partner
Deloitte China
+852 28526602
tonywood@deloitte.com.hk

Zeshan Choudhry
Partner
Deloitte UK
+44 20 7303 8572
zchoudhry@deloitte.co.uk

David Myers
Partner
Deloitte UK
+44 20 7303 5609
damyers@deloitte.co.uk

Tsuyoshi Oyama
Partner
Deloitte Japan
+819098344302
tsuyoshi.oyama@tohmatsu.co.jp

Paul Gilbert
Partner
Deloitte UK
+44 20 7007 1029
pagilbert@deloitte.co.uk

Tom Spellman
Partner
Deloitte UK
+44 20 7303 0019
thspellman@deloitte.co.uk

Leif Boegelein
Partner
Deloitte Switzerland
+41 58 279 7340
lboegelein@deloitte.ch

Bruce Laing
Partner
Deloitte UK
+44 20 7007 8150
blaing@deloitte.co.uk

Vishal Vedi
Partner
Deloitte UK
+44 20 7303 6737
vvedi@deloitte.co.uk

Kris Bhattacharjee
Partner
Deloitte UK
+44 20 7007 4557
kbhattacharjee@deloitte.co.uk

Julian Leake
Partner
Deloitte UK
+44 20 7007 1223
jileake@deloitte.co.uk

David Wright
Managing Director
Deloitte US
+1 415 783 4123
davidmwright@deloitte.com

Authors

David Strachan
EMEA Leader
Center for Regulatory Strategy
Deloitte UK
+44 20 7303 4791
dastrachan@deloitte.co.uk

Rod Hardcastle
Director
Center for Regulatory Strategy
Deloitte UK
+44 20 7007 1640
rhardcastle@deloitte.co.uk

Scott Martin
Manager
Center for Regulatory Strategy
Deloitte UK
+44 20 7303 8132
scomartin@deloitte.co.uk

The Center for Regulatory Strategy would like to thank colleagues for their insights and contributions to this paper:

Rollo Burgess, Director, UK Consulting
Tom Gregory, Director, UK FS Risk Advisory
David Hewitt, Director, UK FS Risk Advisory
Hubert Justal, Director, UK FS Risk Advisory
Aditya Kapoor, Manager, UK Consulting
Lory Kehoe, Director, EMEA Blockchain Laboratory
Ed Moorby, Partner, UK FS Risk Advisory
Melis Pistracher, Senior Manager, UK FS Risk Advisory

Notes

Notes

CENTER *for*
REGULATORY STRATEGY

The Deloitte Center for Regulatory Strategy is a powerful resource of information and insight, designed to assist financial institutions manage the complexity and convergence of rapidly increasing new regulation.

With regional hubs in the Americas, Asia Pacific and EMEA, the Center combines the strength of Deloitte's regional, and international network of experienced risk, regulatory, and industry professionals – including a deep roster of former regulators, industry specialists, and business advisers – with a rich understanding of the impact of regulations on business models and strategy.

Deloitte.