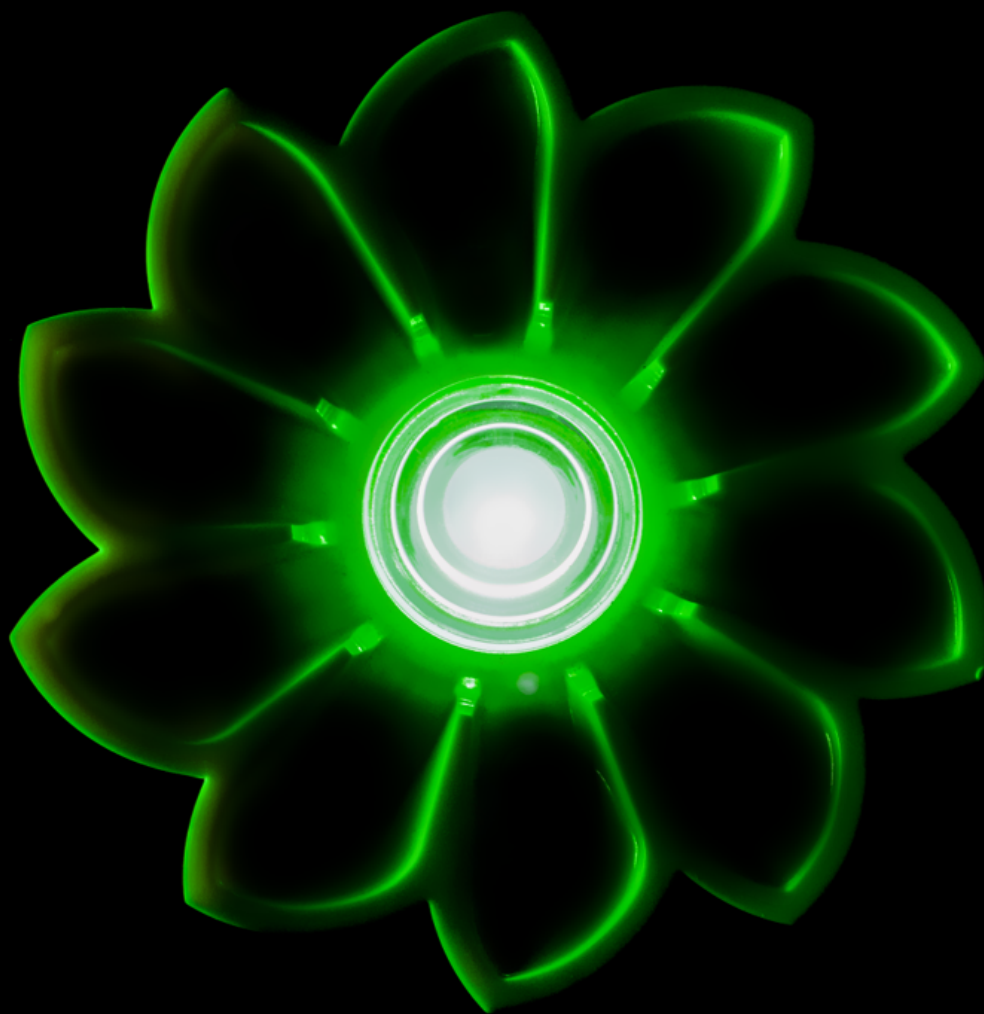


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Optimizing global treasury

Managing banks' liquidity and funding risk

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Executive summary

In this paper the Deloitte Global team explores how the global regulatory landscape impacts banks' ability to manage liquidity and funding risk, the challenges faced by treasury and how firms are progressing along the journey to optimization.

It was against the backdrop of regulatory revolution over the last decade that firms focused much of their attention on regulatory compliance. Now, with the retreat from global co-ordination, firms are facing a new challenge — that of global divergence and tailoring of regulations for local specificity. As the pace of change shifts to evolution, we've highlighted some of the key regulatory developments that impact the treasury function.

Firms have simultaneously been focused on the challenges across operations, processes, data and systems. We've highlighted the main challenges that we see firms facing in each of these areas as well as a perspective on how they are responding. The key message is that firms need to evaluate solutions to these challenges holistically and together with technology capabilities. While the benefits of this approach may only be realized in the medium to longer-term, these will outweigh the costs and challenges that such large-scale changes represent.

Lastly, we outline three near-term actions for treasury to best prepare for post-crisis regulatory divergence and to achieve the target outcome of an integrated and streamlined end-to-end liquidity and funding framework. We have also identified several areas where firms have yet to reach full maturity which indicates that there is still an opportunity to realize optimization benefits and cost-saving goals.

Matthew Dunn

Global Treasury Co-leader, Financial Services
United States

Thomas Spellman

Global Treasury Co-leader, Financial Services
United Kingdom

Global regulatory outlook

The Deloitte Centers for Regulatory Strategy released [a series of 2019 financial services regulatory outlooks](#) to help financial services firms across the globe navigate the year ahead. The following highlights the key themes that are relevant to treasury functions for global banks.

Overview

Nearly ten years after the financial crisis, banks are now better capitalized and more liquid than before the crisis. The aftermath of the financial crisis saw a globally coordinated response to draw up a series of new regulations which now underpin a more robust and stable financial system.

However, there is now a retreat from global coordination and a reduced appetite for cross-border regulatory cooperation. As a result, there are increasing signs of regulatory divergence as regions look to tailor regulations to local conditions. This was highlighted in the recently published report¹ by the Financial Stability Board (FSB) which looked at where supervisory practices and regulatory policies may give rise to market fragmentation.

It is with this regulatory outlook that global firms are facing not only the challenge of complying with divergent regulations in the different jurisdictions in which they operate, but also to optimize their global operating models, governance structures, legal entity structure and booking models as post-crisis reforms are implemented. While regulators in many countries are shifting their focus from regulatory re-design to supervision, firms are seeing rising supervisory expectations. This is evident through greater use of on-site supervisory visits as regulators engage directly with firms in order to understand their risk profiles and appetite, risk management frameworks and approaches.

Impact on treasury

In addressing these challenges, there are several important regulatory developments that impact the treasury function. These include:

- **Net Stable Funding Rule (NSFR):** Global regulatory fragmentation is particularly evident with the implementation of the NSFR where, according to a recent Basel Committee on Banking Supervision (BCBS) progress report on the adoption of the regulatory framework², only 10 countries out of 27 BCBS members have NSFR regulations in place, despite the deadline having been January 2018. In the European Union (EU), the NSFR was one of the components in the recently finalized CRD V/ CRR II legislative package, which demonstrated the EU's willingness to depart from BCBS standards. This provided for a more lenient Required Stable Funding (RSF) treatment of Securities Financing Transactions (SFTs) with a four-year phase-in period that can be extended by future legislation. Meanwhile, in Japan, the implementation of NSFR regulation was recently postponed by the Financial Services Agency (FSA). This trend of global divergence and tailoring of regulations for local specificity is expected to continue and pose further challenges for global firms.

- **Stress testing:** Previously, liquidity stress testing focused on measuring the impact of combined stress scenarios over shorter time horizons (generally 30 to 90 days). There is an increasing trend in the industry to assess liquidity positions under a sustained liquidity stress over longer horizons (180 days) and in some instances for a period of one year. The ECB performed its first liquidity regulatory stress tests earlier this year to review the net liquidity position over a 180-day period. Some regulators are keen to understand a firm's view of liquidity positions under internal liquidity stress and compare with the NSFR. Additionally, many firms are enhancing their liquidity modelling capabilities for resolution planning following the guidance issued by the FSB. This is another example of regulatory divergence as regulators globally have adapted, or are in the process of adapting, these guidelines to form their approaches and finalize policy around liquidity and funding in resolution.
- **Leverage ratio:** This is one regulatory requirement where there appears to be consistency and coordination across most jurisdictions in applying the BCBS's three percent leverage ratio minimum requirement. This was most recently confirmed in the EU, where a three percent baseline leverage ratio has been agreed, with a leverage-based G-SIB buffer calibrated at 50 percent of the RWA-based G-SIB surcharge—both of which can be met with any Tier 1 capital.
- **LIBOR transition:** Continuing the trend of divergent approach, the LIBOR regulators—the UK Financial Conduct Authority (FCA) and US Commodity Futures Trading Commission (CFTC)—announced a transition away from LIBOR toward alternative risk-free rates (RFR). The former set a deadline of year-end 2021 to discontinue using LIBOR as the reference rate in financial contracts, while other regulators have made similar statements. As this underpins an estimated US\$350 trillion in financial products globally with maturities ranging from overnight to more than 30 years³, this is understandably a key area of focus for treasury functions in determining the rate at which unsecured funding can be accessed and the impact on current Funds Transfer Pricing (FTP) frameworks. Additionally, the transition from LIBOR can impact the asset profiles as well as the liability profiles leading to potential asset-liability mismatches. This creates a funding risk for treasurers and could impact measures of interest rate risk, such as Net Interest Income (NII) and net worth measured through Market Value of Equity (MVoE). The transition from using LIBOR as a discount factor will also impact the cost of funding and liquidity for the treasury function.
- **Fundamental Review of the Trading Book (FRTB):** While FRTB was proposed by the BCBS in January 2016, what followed was a period of extensive consultation with the industry. Data from the European Banking Authority (EBA) published in 2018 found that it would require a 52 percent increase in Tier 1 capital⁴ held against market risks for large EU banks that were assessed. The magnitude of this projected increase in capital required help to explain why the FRTB has been so challenging to put in place and why EU policymakers decided to proceed with a multi-step implementation approach that will be much more complex than the international standards intended. The first step in implementation is the reporting requirement which was agreed as part of the EU's most recent legislative package. This has left the second step, the binding capital requirement, to be agreed as part of the next legislative package (CRR III). While the BCBS had set a target of January 2022 for FRTB to be implemented, this is likely to be delayed by at least two years in the EU. As a result, binding capital requirements will continue to be based on existing market risk rules.
- **Ring-fencing:** Another area that has seen regulatory divergence is that of ring-fencing. In the United States and EU regulators have moved to implement segregation of activities on a geographic basis. In the United States, foreign banking organizations (FBOs) were required to establish US intermediate holding companies (IHCs) by July 2016. By contrast, similar rules in the EU were recently approved as part of CRD V/CRR II legislative package which requires non-EU banks with assets in excess of €40 billion to establish an intermediate parent undertaking (IPU). This is however subject to a three-year phase in period and thus will be applicable from June 2022. In the UK, regulations took a different approach and required segregation of activities on a product basis which required core retail banking services to be separated from investment and international banking activities by January 2019. As a consequence, this has a direct impact for treasurers of United Kingdom non-ring-fenced banks which can no longer rely on retail deposits and need to raise funding from the market.

While global firms face the challenge of complying with divergent regulations, regulators are also facing the question of whether to adopt or adapt. This is particularly relevant across Latin America and Africa where many supervisors have to decide whether to fully adopt the Basel-proposed models for credit, market and operational risk which have been calibrated to conditions in more developed countries, or to adapt to the reality of the domestic market while preserving the capital adequacy principle of the Basel Accord. This continues the risk of increased fragmentation in the implementation of Basel III.

Despite the challenges of divergent regulations, firms need to turn their attention to optimizing their operational approach. Treasury functions have seen a build-up in compliance costs from numerous regulatory programs and now have the opportunity to review their operating model, streamline regulatory and management information (MI) reporting processes, identify synergies between teams, enhance/achieve daily (T+1) Liquidity Coverage Ratio (LCR) reporting, rationalize data sources and reduce costs.

As part of their scrutiny of capital and liquidity, supervisors increasingly expect the Internal Capital Adequacy Assessment Process (ICAAP) and Internal Liquidity Adequacy Assessment Process (ILAAP) to be fully integrated and embedded into banks' internal risk management and business decision-making processes. In order to meet these expectations, firms need to re-think the governance structure of their internal risk management activities.

Conclusion

Overall, the global regulatory landscape for banking looks set to become increasingly divergent and fragmented—a trend that, if left unchecked, could have significant implications for banks with substantial operations in multiple jurisdictions. The potential impact is particularly great for current efforts to create a regulatory, risk, and compliance infrastructure that's more streamlined and sustainable. It is in this environment that firms need to review their current approach and identify opportunities to optimize in order to efficiently navigate complexity.

Challenges for treasury

In addition to regulatory divergence, firms have been addressing a number of challenges across operations, processes, data and systems to some extent as part of day-to-day operations. To date, these have often been addressed through tactical solutions which over time has resulted in an increase in compliance costs. The key change going forward will be to evaluate solutions more holistically, together with technology capabilities, to arrive at an integrated and streamlined end-to-end framework. In the medium to longer-term, benefits of this approach will outweigh the costs and challenges that such large-scale changes will present.

Developing a robust integrated response to these challenges requires that senior management and firm leadership align on a vision of the benefits of an integrated functional model. This alignment and agreed vision can dramatically reduce the challenges of implementing optimization capabilities described in the following section. Technology enablers, although requiring upfront investment, can significantly reduce implementation challenges, including costs, in the medium and longer term. An assessment of the return on investment could increase functional and management support for solution enhancements.

Detailed below are the challenges that firms are facing and how some are responding. While there is no single solution that would work for all firms given different legacy issues, operating models or systems architecture, there are a number of steps that treasury functions can take to address these challenges.

Operating model and governance

Challenges	Deloitte view on industry responses
<ul style="list-style-type: none"> • The production of liquidity reports is often split between regulatory reporting, risk and treasury in a siloed approach with limited alignment between the teams; • There is a lack of a single, integrated operating model across functions and, as a result, governance is isolated and specific to functions rather than being integrated across the firm; • There is a siloed approach to collateral monitoring and management—data input and gathering takes place on an ad-hoc basis across functions without consideration for end-to-end process across transaction inceptions, data input and reporting; and • The roles and responsibilities across functions are not well defined in many cases. 	<ul style="list-style-type: none"> • Report production (across both regulatory and MI) should be consolidated within a single dedicated team within treasury or finance; • Roles and responsibilities of teams across regions should be clearly defined, with report preparers and owners identified; • Appropriate review and approval process should be implemented along with governance over an aggregate view of liquidity; • Senior management and firm leadership should align on the benefits of an integrated functional model which reduces the challenges of implementing optimization capabilities; and • Outputs from reporting should be presented to senior management (e.g., Asset and Liability Committee (ALCO)) and used as part of strategy and planning functions.

Processes and controls

Challenges	Deloitte view on industry responses
<ul style="list-style-type: none"> • There are inconsistent processes and controls applied for regulatory and MI reporting; • The process for internal liquidity stress testing requires enhancement, with models often not part of internal model validation reviews; • There are disparate and ad-hoc collateral processes due to a reactive approach and a lack of senior management involvement in planning or considering the end-to-end collateral management process (e.g., sourcing collateral, documenting, inputting into a system, and reporting); • Manual activities to support identification, measurement, monitoring and reporting of interest rate risk (IRR) are in many cases not well documented or understood; and • Lack of an integrated process between treasury and operations (cash and collateral) to monitor intraday liquidity risk from cash and collateral across legal entities by currency and counterparties. 	<ul style="list-style-type: none"> • Consistent processes and control framework should be applied for liquidity regulatory and MI reporting; • Dynamic balance sheet projections and stress test scenarios should be included within the stress testing methodology; • Well defined end-to-end processes should be established for collateral that facilitate treasury oversight of collateral available for funding; • Integrated processes covering liquidity and IRR calculations with clarity on assumptions and scenarios used (e.g., customer behavior); and • With the move toward real-time payments, firms should address changing requirements of collateral management and intraday liquidity within processes and controls.

Data and reporting

Challenges	Deloitte view on industry responses
<ul style="list-style-type: none"> • Use of inconsistent data sources for regulatory (e.g., LCR, NSFR) and MI reporting, liquidity stress testing and Recovery and Resolution Planning (RRP); • In some instances, internal stress models are augmented with data feeds in order to assess the impact of stress scenarios; • Sourcing collateral data is not streamlined and is highly manual, leading to inconsistencies across reports; • Granularity of data is insufficient, particularly when assessing behavioral assumptions; and • Both current state and forecasted views are needed on NII and EVE as well as an ability to monitor and report on exposure against risk tolerance and limits. 	<ul style="list-style-type: none"> • Aligned and consistent data sources should be used to produce both regulatory and MI reports, liquidity stress metrics and RRP; • Where internal liquidity data is augmented, key differences should be identified and approved; • Additional granularity of data provides for more efficient management and monitoring of daily liquidity and collateral which should then be used as an input for medium to long-term decision making; and • Integrated data sourcing with granular levels of data built and leveraged to develop a NII/NIM (Net Interest Margin) framework.

Systems architecture

Challenges	Deloitte view on industry responses
<ul style="list-style-type: none">• Liquidity regulatory reports are produced on a different platform to MI reports;• Tactical solutions are relied upon for key regulatory/MI reporting;• Monitoring and management of collateral is based on spreadsheets and the data is sourced manually, rather than using an integrated strategic platform; and• Analysis of NIM is executed for different purposes by different functions (e.g., treasury, finance) which results in variations in terms of data sourcing and system requirements.	<ul style="list-style-type: none">• A single strategic technology platform is required for liquidity regulatory and MI reporting (e.g., stress testing, forecasting, mismatches);• Technology platform should include a single, centralized system for gathering collateral data, including attributes needed to link the data to underlying transactions;• There should also be connectivity to other systems and tools (e.g., valuation refreshes, transaction expiry dates); and• A dynamic architecture should be integrated with relevant treasury and finance inputs and outputs, including consistent data sourcing and traceability.

Conclusion

While streamlined operations and integrated technology platforms will require senior management alignment on a vision, there are significant benefits to this approach. As treasury functions mature they are taking on a more strategic role within firms and leveraging the work done to look ahead and enhance capabilities for the purpose of liquidity and funding optimization, business and legal entity rationalization, and cost reduction.

Journey to optimization

Addressing optimization is not an overnight effort. Significant thought and analysis is needed to understand and assess the maturity of a firm's treasury function, define the desired target state and identify areas for optimization and develop a roadmap to unlock the benefits. These steps need to be addressed in the context of how the organization sees itself today and in the future against the treasury maturity curve.

Our perspective is that institutions should take three near-term actions to best prepare for the post crisis regulatory divergence and to achieve the target outcome of an integrated and streamlined end-to-end liquidity and funding framework:

- Identify where the firm's treasury function falls on the treasury maturity curve—specifically whether the current state of the treasury organization is fragmented, controlled, or optimized
- Define the organization's desired target state and identify areas for optimization
- Develop a plan to achieve the target state—including initial resource requirement estimates and a view on preferred technology enablers

Illustrative treasury maturity curve

To properly address the challenges faced, we believe that it is necessary for firms to understand where they sit along the treasury maturity curve to best evaluate efficient ways to progress along the curve.

On the maturity curve continuum of fragmented, controlled and optimized, we have seen many firms fall under the spectrum of fragmented and controlled, even while understanding and appreciating the importance of moving toward an optimized operating model.

Figure 1: Illustrative treasury maturity curve



Defining the target state and identifying areas for optimization

Once it has been assessed where the treasury function falls on the maturity curve, firms should identify and prioritize areas for optimization as they move toward the desired target state. The following is an overview of where firms have not necessarily reached full maturity, indicating that there is still an opportunity to realize optimization and cost-saving goals. While each area was either directly or indirectly covered as part of post-crisis regulations and guidelines, we have found that the level of maturity for each area is generally low and meets the spirit of the rules and guidelines at varying levels.

- **Funds transfer pricing (FTP):** FTP may not have been subject to scrutiny by global regulatory requirements and will be a focus area for banks to steer business decisions and accurately price transactions.
- **Limit structure and monitoring:** Limit structures across liquidity, funding and capital have been incorporated as part of post-crisis rulemaking and need to continue to be calibrated and expanded for changes to business and management models and asset-liability mixes.
- **Stress testing:** While regulatory stress testing scenarios are in the process of being implemented, firms should continue to enhance reporting and analytics capabilities for both regulatory and internal stress testing and continue to ensure alignment across assumptions and business planning.
- **Contingency funding plan (CFP) and Recovery and resolution planning (RRP):** Early warning indicators (EWIs), triggers, action plans, roles, cash flow forecasts, and other components of CFP and RRP should be aligned and continue to be improved.
- **Liquidity buffer:** Asset specifications and management of liquidity buffers have been incorporated as part of the regulatory regime, however, work is needed to monitor and maintain a cost-optimal buffer size that is integrated with the capital framework.
- **Trapped liquidity and capital:** Treasury will continue to assess the flow of intragroup liquidity between legal entities and monitor the impact on their liquidity buffers under stress. At several banks, as part of their strategic objectives to rationalize legal entities, treasurers will continue pursuing initiatives to deliver savings from releasing trapped liquidity and capital.
- **Collateral management:** High-level management and monitoring have generally been put in place, however, additional effort is required to consistently and accurately track positions at a granular level, including considerations for encumbrance and valuation.
- **Liquidity data, metrics and analytics:** Reporting solutions have been tactical in most cases and underlying data not usable for sufficient liquidity management and measurement; in addition, an increased focus is needed toward globally versus regionally aggregated views where required.
- **Intraday liquidity:** Tactical reporting has been created to evidence compliance, however further work is needed to manage, measure and monitor liquidity real-time and to adequately evidence these activities through established governance and processes.

- **Interest rate risk:** Regulatory pressure on calculation, monitoring and management of Net Interest Income (NII) and Economic Value of Equity (EVE) in the banking book will continue and firms should increase focus on modelling, automation, analytics and adequate data granularity, particularly in light of the changing interest rate environment.
- **Funding and asset liability management:** On-going strengthened focus on funding risk management through compliance with the NSFR or adjustments in funding mix and management of liquidity risk within the risk appetite; in addition, there is an evolution toward an increased focus on business, ALM and treasury interaction to influence business decisions and strategy.
- **Other:** Additional important layers of liquidity and funding that treasury needs to monitor and manage include: models and model risk, cash flow forecasting (CFF), foreign exchange risk, risk appetite setting, risk aggregation and exposure management. Second line of defense (e.g., risk or data departments), third line of defense (e.g., internal audit), Comprehensive Liquidity Analysis and Review (CLAR) and Internal Liquidity Adequacy Assessment Process (ILAAP) are also regulatory-driven regimes that firms need to establish as part of their standard processes.

Planning to achieve the target state

Working through the ongoing complexities within firms' treasury functions requires resources, effort and funding to navigate and continue to address challenges, with the goal of moving along the maturity curve in a measured manner. Progression along the curve can only be quantified once a vision is established and an executable and prioritized plan is developed, agreed upon, and supported by senior management.

In addition to the effort required to support the broader evolution of existing treasury models and components, there is expected to be an ongoing need to monitor the pulse of liquidity and funding impacts to both keep up with and stay ahead of regulatory and competitive pressures.

Conclusion

Despite the increasing regulatory complexity and divergence, treasurers need to remain focused on how the forthcoming regulatory developments will impact banks' ability to manage liquidity and funding risk. Simultaneously, firms need to take steps toward streamlined operations and integrated technology platforms to address the challenges identified.

While the journey to optimization will differ for each firm, the three near-term actions we have outlined will provide firms with an opportunity to shift focus beyond regulatory compliance and to hence optimize their treasury functions. By assessing where the treasury function falls on the maturity curve, firms can evaluate the areas in which they have not necessarily reached full maturity. In targeting these areas for optimization treasury functions will be able to progress along the maturity curve and take a more strategic role within the firm.

We hope that this has provided a perspective on the challenges faced by firms and how treasury functions can address these while progressing along the journey to optimization.

End Notes

1. FSB Report on Market Fragmentation (4 June 2019) <https://www.fsb.org/2019/06/fsb-report-on-market-fragmentation-2/>
2. BIS Fifteenth progress report on adoption of the Basel regulatory framework (26 October 2018) <https://www.bis.org/bcbs/publ/d452.pdf>
3. ICE Benchmark Administration (18 March 2016) https://www.theice.com/publicdocs/ICE_LIBOR_Roadmap0316.pdf
4. Basel III Monitoring Exercise (4 October 2018) <https://eba.europa.eu/documents/10180/2380948/2018+Basel+III+Monitoring+Exercise+Report.pdf>

Contacts

Treasury leadership

Matthew Dunn

United States
mattdunn@deloitte.com

Thomas Spellman

United Kingdom
thspellman@deloitte.co.uk

Global leadership

Anna Celner

Global Banking & Capital
Markets Leader
Switzerland
acelner@deloitte.ch

James H Caldwell

Global Risk Advisory Leader,
Financial Services
United States
jacaldwell@deloitte.com

Vishal Vedi

Global Risk Advisory Financial
Risk Leader
United Kingdom
vvedi@deloitte.co.uk

Authors

David Hewitt

United Kingdom
dahewitt@deloitte.co.uk

Dilip Menon

United Kingdom
dimenon@deloitte.co.uk

Elisabetta Tisato

Italy
etisato@deloitte.it

Joan Cheney

United States
jcheney@deloitte.com

Kelvin Fryer

United Kingdom
kelfryer@deloitte.co.uk

Nabil Cacheiro-Hamdi

United States
ncacheirohamdi@deloitte.com

Global contacts

Americas

Joan Cheney

United States
jcheney@deloitte.com

Paul Lech

Canada
plech@deloitte.ca

Asia Pacific

Benny Koh

Singapore
bekoh@deloitte.com

Sawako Ueno

Japan
sawako.ueno@tohmatu.co.jp

Steven Cunico

Australia
scunico@deloitte.com.au

Tony Wood

Hong Kong
tonywood@deloitte.com.hk

Europe

Frederic Bujoc

France
fbujoc@deloitte.fr

Luigi Mastrangelo

Italy
lmastrangelo@deloitte.it

Phillip Flockermann

Switzerland
pflockermann@deloitte.ch

Roald Waaijer

Netherlands
rwaaijer@deloitte.nl

Russell Hulett

United Kingdom
rhulett@deloitte.co.uk



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