

ABSTRACT

This paper was originally written in late 2021 for the Journal of Securities Operations and Custody. In the paper Justin Chapman reflects on the evolving role of the network manager within the asset servicing industry, as well as the implications of its growing digital market infrastructure and the rapid technological shifts we have seen through the COVID-19 pandemic. In the light of continuing change, he identifies key areas of challenge and opportunity for network managers in continuing to deliver risk management, commercial oversight, relationship management and market advocacy for investors.

This paper describes a vision for sub-custodian network management in a post-pandemic world, and:

- Examines how the COVID-19 crisis affected risk assessment functions and the approach to due diligence;
- Considers the wider roles network managers play in market advocacy, intelligence gathering, relationship management and infrastructure development, and looks at whether the global pandemic has accelerated a bifurcation of these roles;
- Makes the case for continued on-site meetings when the pandemic ends and examines new considerations for such visits;
- Explores some of the components that will shape the future evolution of the network manager, including the impact of digitalisation and technological innovation and trends and themes transforming the custody business itself.

Successful network managers should embrace the digital paradigm, and support and enable their sub-custodians to do the same. As sub-custodian business models change and markets evolve, network managers should continue to leverage their high level of market expertise to support their own organisations in their decision making. Network managers should increasingly become agents of change, as they navigate new complexities and identify opportunities for key stakeholders across the sub-custodian network.





JUSTIN CHAPMAN Senior Vice President, Global Head of Digital Assets and Financial Markets, Northern Trust

Justin Chapman leads Northern Trust's Digital Assets and Financial Markets group, a single market facing team unifying digital and traditional market functions and providing access to market-leading expertise, industry insights and continued innovations.

The group combines teams from Northern Trust's Market Advocacy and Innovation Research, which leads digital asset innovation; Financial Institutions Group, responsible for large, strategic relationships; and Network Management, which provides market access and insights across more than 100 traditional securities services markets around the globe.

Justin and his team are focused on developing services and capabilities that reflect and enable clients' evolving investment strategies, providing them with market access support and holistic solutions across the full spectrum of investment types and markets.

INTRODUCTION

In March 2020, it was becoming apparent to the financial services industry that the world was entering into a pandemic of incredible global proportions. Day by day, financial institutions were making historic decisions to move virtually all operations to a remote environment. For global custodians, this meant the transition to remote processing of asset servicing, which triggered contingency plans across all levels of the custody and asset servicing chain.

Fortunately, the prior contingency planning work performed by the financial services industry paid off. Overnight, trade settlement, tax, corporate actions, income processing, proxy processing, foreign exchange and other services went remote.

Despite the enormity of the undertaking, the global marketplace remained fully operational. Connectivity remained in effect, and operations continued to flow with minimal impact to the players involved.

Contingency plans were in place, but the process was business as usual (BAU).

One of the main reasons why the transition occurred so smoothly was the intelligence acquired by each of the entities in the chain of custody, as part of their due diligence exercises. The collective work of the industry to design due diligence best practices, and the subsequent knowledge acquired by global custodians in terms of understanding infrastructure, enabled operations to continue without any delay. Global custodian network management departments hold the responsibility for facilitating these due diligence exercises.



THE ROLE OF THE NETWORK MANAGER

The network management function goes far beyond processes and procedures. Network management is a multifaceted business. While network managers focus on risk management concerning the safety and soundness of client assets, they are also responsible for building and driving technical expertise, advancing strategy and commercial direction, and developing relationships with key stakeholders across the value chain.

To facilitate this responsibility, network managers oversee the relationship between global custodians and their sub-custodian agent banks. Through this function, they become experts in the local markets in which they operate. They design, implement and monitor the servicing parameters between a global custodian and a sub-custodian. By leveraging information obtained through the due diligence process, network managers maintain an ongoing review of markets, making sure that local market custody-related risks are in check, while simultaneously ensuring the selection of the optimal local agent with the best services and the most competitive price.

Network management is also a people business. Network managers are responsible for building relationships across the entire local infrastructure chain, including local banks, brokers, exchanges, central security depositories (CSDs), central banks and regulators. They leverage those relationships to not only enhance their service provision, but also to gain market expertise, lobby for further development in the local market infrastructure, and act as the voice and representative of their clients and their investment managers. On-site visits help foster these relationships. Besides these on-site visits, sub-custodian oversight and monitoring plans typically include the following:

Network managers oversee the relationship between global custodians and their sub-custodian agent banks. Through this function, they become experts in the local markets in which they operate.

Due diligence and risk assessments	Operational sub-custodian performance reviews	Regulatory compliance checks	Credit reviews
Cybersecurity risk assessments	Review of service level agreements (SLAs)	Review of sub-custodian agreements	Eegal opinion reviews

IMPACT OF THE PANDEMIC

Despite the lockdowns and limitations on travel, the sentiment anecdotally across the industry was that there was great success in conducting sub-custodian oversight and monitoring during the pandemic. Northern Trust was able to perform these functions smoothly because its processes concerning the protection and management of client assets are designed to take place on an on-going basis throughout the year. These processes enabled it to establish BAU procedures throughout the crisis. Sub-custodians and other stakeholders in turn adapted to managing a remote due diligence process, working quickly to help ensure customers could share screens, experience system demos and communicate via video conferencing platforms.

There are clear lessons to be learnt from the pandemic, however. There are areas where processes should be re-evaluated and where business contingency planning should be broadened. The need for **cyber risk management**, for example, increases when people work from home. In a post-pandemic world where hybrid working models are the norm, network managers will have to ensure the robustness of systems and processes. They will also have to address various scenarios, no matter how unlikely. What are the risk considerations if two employees from competitor institutions live together and share the same workspace at home, for example?

Network managers will also have to re-evaluate on-site visitation once travel resumes more widely.

In a post-pandemic world where hybrid working models are the norm, network managers will have to ensure the robustness of systems and processes.

THE CASE FOR CONTINUED ON-SITE VISITS

On-site visits allow network managers to develop and maintain strong relationships with potential and appointed providers and build a breadth of understanding around key risks, market practices, asset safety and processes. Physical visits allow network managers to expand their relationships across the infrastructure chain, whether with alternative sub-custodians, market makers or regulators. These relationships are a crucial part of the oversight monitoring approach as they help to facilitate discussions with local authorities about local market issues.

Northern Trust's network management team was able to thrive in the remote transition in part by leveraging existing relationships with key stakeholders in individual markets. These relationships were built from prior visits, not from virtual networking.

In a pre-pandemic world, on-site visits served as a critical component of the overall sub-custodian oversight and maintenance programme. We believe the same will be true in the post-pandemic world.

The on-site visit gives network managers the ability to physically confirm the information that is conveyed in sub-custodian market documentation and questionnaire responses. These confirmations are conducted through in-person system demonstrations and direct interactions with sub-custodian representatives, varying from day-to-day operational specialists to the head of the security services department. It is through these direct interactions that the local market experience is obtained.

These meetings also present opportunities to get a true 'boots on the ground' feel for local servicing conditions in the market. As changes arise from a political, economic or social standpoint, operational circumstances can similarly change, which Northern Trust observed during some previous on-site visits, such as when:

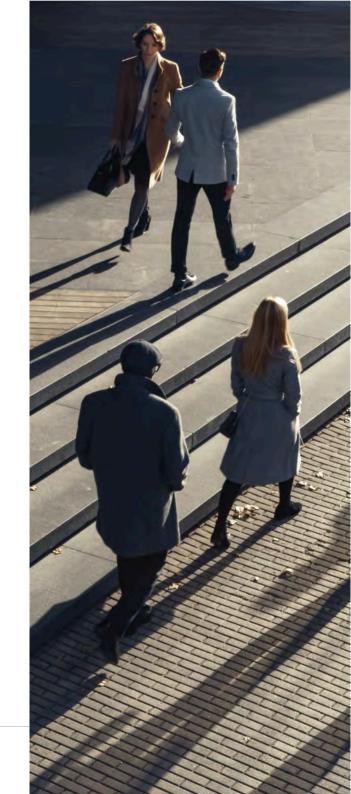


A local meeting revealed a central securities depository was suffering from a staffing shortage and systemic backlog, which prevented it from sending its position statements, used for participant reconcilement at the agreed frequency established within the marketplace;



A series of in-person discussions in another country demonstrated the conditions of the market had deteriorated so badly it became apparent the sub-custodian was offering the local asset servicing on a reasonable-efforts basis.

This type of local reconnaissance is only possible through on-site interactions.



Market advocacy is another major result of on-site visits. Through the frequent visits conducted by global custodians, opportunity exists for banks to lobby directly with sub-custodian banks, depositories and regulators to push for local changes, in an effort to improve the local servicing for institutional investors. There are numerous changes that the industry has helped to implement across the globe. Here are some recent accomplishments fostered by on-site visitation:

- In Europe, the Middle East and Africa, global custodians lobbied for enhancements to the local market infrastructure. In Nigeria, the industry worked with local participants to develop an optional process, enabling brokers to instruct subcustodians to move assets to trading accounts. This service enhancement addressed the requests made by some foreign investors who found it difficult to have to transfer shares in advance of trade execution. In Saudi Arabia, global custodians worked with sub-custodians to help enhance the corporate governance process. The agreed-upon flow facilitated a proxy product from the point of meeting notification to the gathering of votes, and to the ultimate submission of voting instructions to the local companies;
- In the Western hemisphere, global custodians collaborated with local market participants and regulators to help reduce the complexities surrounding the movement of Chilean peso (CLP). Through this advocacy work, many of the restrictions on CLP were relaxed which gave foreign investors more options of how to use their CLP balances. In Canada, global custodians and a number of local banks continue to engage with the Canadian Depository for Securities (CDS), both directly and through industry working groups, to facilitate the planning and rollout of CDS's Post Trade Modernization (PTM) project, currently slated for launch in the second half of 2022;
- In the **Asia Pacific** region, global custodians worked with the local market intermediaries to revise the account opening practices in China. Specifically, the industry's work helped to change the market access approach from that of an approval framework to that of a registration framework. Furthermore, more investment options were introduced by eliminating the equity and fixed income ratio and allowing foreign exchange hedging. Additionally, in Hong Kong, global custodians worked in tandem with major proxy vendors to help redesign documentation required by certain issuers for corporate governance purposes to better align it with best practices in the custody industry.

We believe on-site visits will continue after the pandemic. Historically, the feasibility to travel was based on bank needs and the general security circumstances in the targeted country. Post-pandemic, network managers will now also need to ensure they are complying with the ever-changing pandemic-driven regulations or procedures established in both their home country and the target country they intend to visit.

Additionally, network managers may also need to consider new logistical requirements in local markets. For example, postpandemic, sub-custodians, depositories and regulators may have new and differing guidelines for visitors, including but not limited to the duration of meetings and the number of people permitted in a visiting party. Furthermore, network managers may need to coordinate their in-person meetings with work-from-home policies, which may be continued to some degree in the postpandemic world. Post-pandemic, network managers will now also need to ensure they are complying with the everchanging pandemic-driven regulations or procedures established in both their home country and the target country they intend to visit.

THE PROGRESSION OF AN INDUSTRY

Network management has developed significantly since its nascent beginnings in the 1980s. During that period, there were no SLAs, only basic contracts, and few, if any, on-site reviews took place. Risk assessments were at best limited. Today, as the financial industry has evolved, the network function has adapted and grown into something very different and considerably more sophisticated. That evolution did not happen overnight, however, and there were key milestones along the way:

SWIFT: In 1973, 239 banks from 15 countries decided to tackle the challenge of cross-border payments by forming the Society for Worldwide Interbank Financial Telecommunication (SWIFT).¹ SWIFT went live in 1977 and put an end to the use of telex technology for communication, changing how the securities industry operated. In the mid-1980s, SWIFT securities messages were introduced, and allowed for the automation of securities transactions between financial institutions. Global custodians needed to update their SLAs to ensure they incorporated the new communication requirements resulting from this change in the industry.

International market growth: In the mid-1980s, some countries saw such substantial growth that physical markets could not cope with the sheer volume of transactions. The industry recognised that settlement solutions were urgently needed. Market growth continued to be an issue as developing and frontier markets expanded that required custody and infrastructure support.

The Investment Company Act: In 1984, the US Securities and Exchange Commission (SEC) expanded the Investment Company Act by introducing rule 17f-5, which prescribed the conditions under which investment companies could maintain investments in overseas markets, including standard of care and qualification requirements of both subcustodians and central bank depositories. Rule 17f-5 was updated in 2000 and refined the existing standards governing the maintenance of an investment company's assets in international markets. The SEC also introduced rule 17f-7, which provided more granular requirements on the use of local market securities depositories, requiring US mutual fund managers, whenever they made an investment decision, to take into consideration the local market depositories and the safety of underlying assets during the settlement process and in ongoing safe custody.²

The Client Asset Sourcebook (CASS) Regulation: Regulation from the UK's Financial Conduct Authority (FCA), developed after the Lehman Brothers collapse in 2008, requires investment companies to separate client money from their own assets, place them in segregated accounts and register custody assets appropriately. This ensures that client money and custody assets are ring-fenced in the event of the insolvency of the firm.³ It increased focus on due diligence processes.

G30 Industrialists: In 1988, the Group of 30 (G30), an independent global body comprised of economic and financial leaders from the public and private sectors and academia, published a report on the 'Clearance & Settlement Systems in the World's Securities Markets', which outlined nine recommendations to be adopted by the global markets to improve efficiency, liquidity and risk.⁴

Y2K: The 'Millennium bug' brought into sharp focus the risk of computer processes that could bring down systems and infrastructure. Banks, regulators and other financial stakeholders increased their risk management, compliance and safeguarding processes, while network managers monitored sub-custodian status once the clock struck 12.

Market shocks: Market shocks in 1987 and 2008, the euro conversion in 1999 and concerns driven by large frauds, such as the Madoff Ponzi scheme, led to an increased focus on regulation. New laws such as the Dodd Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank),⁵ the European Markets Infrastructure Regulation (EMIR)⁶ and the Alternative Investment Fund Directive (AIFMD)⁷ have all driven changes in the custody and stewardship of assets, adding additional responsibilities and complexities to the network management function, expanding the scope of what they are required to monitor.

Growing investor sophistication: Over the years, investor needs have grown more sophisticated and complex, requiring network managers to expand the breadth of their expertise in the local markets they serve. Network managers no longer focus solely on equities, government debt and corporate debt. More clients are now pursuing other activities such as participating in auctions and conducting private equity transactions.

EMBRACING A DIGITAL FUTURE

The establishment of digital market infrastructure continues to be a huge driver of change for the financial ecosystem. Globally, governments, banks, FinTechs and infrastructure providers are all creating new digital platforms. These platforms use distributed ledger technology (DLT), which allows digital, decentralised ledgers to record, share and synchronise transactions.

Some of these are digitally native initiatives, such as the launch of a securities platform to make private equity more accessible in Singapore,⁸ or the creation of a stock exchange and central securities depository for digital assets in Switzerland.⁹ Others are focused on the replacement of existing systems using digital components, such as the Australian Stock Exchange s building of a blockchain settlement system.¹⁰ Similar initiatives, both digitally native and those designed to add digital components to existing infrastructure, are in development across the world.

Technology is enabling traditional products and assets to be issued digitally, and this will increase in the coming years. Traditional proprietary trading companies and alternative exchanges are also entering the digital assets space, launching digital exchange traded funds, digital futures and crypto derivatives, for example. Technology is also increasing disintermediation in the marketplace, providing greater accessibility for retail investors and democratising the financial ecosystem.

DRIVERS OF TRANSFORMATION

While we believe on-site visits will continue, they will look different in the future. Automation will drive some of that change. Parts of the due diligence process have become increasingly automated and standardised. For example, the Association for Financial Markets in Europe (AFME) created a due diligence questionnaire which can be leveraged by the industry to harmonise and simplify the process for gathering information. This consistency has allowed sub-custodians to automate their approach to complete these questionnaires and provide any requested supplemental data. Global custodians have similarly leveraged technology to streamline their procedures to analyse this information and more easily identify items that require further investigation.

Furthermore, with the increasing breadth, complexities and granularity of due diligence activities, the process demands everincreasing support from the subject matter experts from different departments within the bank. Looking to the future, as markets start to bifurcate in the move towards the implementation of digital infrastructures, the due diligence process will be expanded to capture any potential additional entities that now need to be reviewed and to capture the new risks such new structures will create.

The pandemic is not the only driver of change for network management. Increasing regulation, technological innovation, the rise of data analytics and digitalisation all mean network managers must become fluent in a new paradigm. We believe, going forward, network managers will continue acting as agents of change by supporting their sub-custodians as they adapt to these industry changes.

One challenge for asset servicers will be managing the transition from a traditional, heritage world to a digital environment. We believe the process will take some years to achieve. During this transitional period, custodians will be responsible for simultaneously managing the co-existence of heritage and digital ecosystems.

For network managers, this raises a host of new challenges and opportunities.

In a world where digital and traditional ecosystems operate side by side, network managers must be agile as they navigate between challenges occurring within both worlds. Furthermore, network managers should emphasise to sub-custodians that they be equally flexible and holistic in their approach. Sub-custodians will need to be versatile by committing to a digital future while retaining their full existing capabilities.

Moreover, in this digital world, global custodians have to process and curate substantial amounts of data. Through digitalisation, data is increasingly becoming an asset class in its own right. Big data, data analytics and the use of artificial intelligence (AI) to access and process substantial amounts of intelligent information will all be key services offered to clients. Global custodians will be expected to leverage data to gain actionable insights, and to implement client-centric approaches that enable clients to access those insights at any time and place. These requirements will similarly carry forward to the sub-custodians.

The pandemic is not the only driver of change for network management. Increasing regulation, technological innovation, the rise of data analytics and digitalisation all mean network managers must become fluent in a new paradigm.

In an operational world comprised of same day or Trade date +1 settlement cycles, the amount of time gets shorter and shorter to handle exception processing and other issue resolution. To help facilitate asset servicing in such an environment, as well as satisfying investor strategies concerning environmental, social and governance (ESG), network managers may have to consider a wider use of segregated account structures rather than the typically preferred omnibus structures. As this model rolls out, network managers will need to work with sub-custodians to adapt their services to this new approach.

Finally, in the digital world of the future, network managers will need to determine the entities for which due diligence needs to be performed. Traditionally, network managers visit a particular country and review all the entities involved in the servicing of assets for that market. In a digital world, entities other than the typical sub-custodian and depository may be involved in the servicing. These entities may not be located in the same country or subject to the same regulations. Network managers will be among the groups of thought leaders who will be responsible for analysing these circumstances and deciding the best practices for meeting due diligence regulatory obligations.

Network managers should be mindful of the strategic position of sub-custodians in each market and of changing sub-custodian business models. Digitalisation is having its own impact, while margin pressures, technological costs and regulatory burdens are all contributing to a reassessment of the sub-custodian business model. These impacts have led to some sub-custodians, most recently in the Nordic region, to exit the business.¹¹ It is likely that there will be some further consolidation across the industry, as sub-custodians rethink their value propositions. Moreover, technological advances will enable further direct market access, allowing global custodians to take ownership of the life cycle of certain functions, such as corporate actions and proxy voting, which will place the existing sub-custodian model under pressure.

Network managers, in turn, will be cognisant of the fact that fewer sub-custodians could increase the risk of counterparty concentration, once again emphasising the need for strong networks and relationships with key players. They will play a role in assessing whether an existing model in a specific market continues to be fit for purpose.

Because they are one of the few functions with a macro view on how any given bank operates across its securities services business, and because they understand the big picture relationship between the global custodian, the sub-custodian and the local market, network managers will continue to be in high demand. Banks will continue to place them in the middle of any decision making about how to service local markets in their network.

EMBRACING THE FUTURE

Network management departments are in a unique position within typical securities services departments of global custodian banks due to their broad exposure to the operational needs of all the departments they support in securities services. Leveraging this expertise, the network manager of the future will maintain expertise in risk management, commercial oversight, relationship management, market advocacy and infrastructure development together with intelligence gathering, while also acting as agents of change in supporting the development of the growing digital market infrastructure. The role of the network manager has never been static. It has continuously evolved since its burgeoning development in the 1980s and will continue to evolve in sync with the ever-changing financial industry.

CONTACT

If you have any queries about the contents of this paper or for more information, please contact your Relationship Manager or your Northern Trust representative.

Northern Trust 50 Bank Street, Canary Wharf, E14 5NT, UK Tel: +44 (0)207 982 2024; E-mail: netemea@ntrs.com

REFERENCES

- (1) SWIFT, 'SWIFT history', available at: https://www.swift.com/about-us/history (accessed 10th December, 2021).
- (2) Duggan, D., 'Tackling Rule 17f-7', Thomas Murray Press Coverage, available at: https://thomasmurray.com/sites/ default/files/pressReleases/pdf/20010701_ Global_Custody_Review_-_Tackling_Rule_17f-7.pdf (accessed 10th December, 2021).
- (3) https://home.kpmg/uk/en/home/insights/2018/11/compliance-with-cass. html (accessed 8th February, 2022).
- (4) G30 Working Group (1988) 'Clearance and Settlement Systems in the World's Securities Markets', available at: https:// group30.org/publications/detail/49 (accessed 10th December, 2021).
- (5) Congress.Gov (2009) 'H.R.4173 Dodd-Frank Wall Street Reform and Consumer Protection Act', 111th Congress, available at: https://www.congress.gov/bill/111thcongress/house-bill/4173/text (accessed 10th December, 2021).
- (6) European Commission, 'Derivatives (EMIR) Regulation (EU) No 648/2012', available at: https://ec.europa.eu/info/law/derivatives-emir-regulation-eu-no-648-2012_en (accessed 10th December, 2021).
- (7) European Union Law, 'Directive 2011/61/ EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/ EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 Text with EEA relevance OJ L 174, 1.7.2011, p. 1–73 (BG, ES, CS, DA, DE, ET, EL, EN, FR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, SL, FI, SV) Special edition in Croatian: Chapter 06 Volume 006', pp. 47–119, available at: https://eur-lex.europa.eu/legal-content/ EN/TXT/?uri=celex%3A32011L0061 (accessed 10th December, 2021).
- (8) Shu, C. (January 2021) 'Digital securities platform iSTOX closes \$50 million Series A to make private equity accessible to more investors', TechCrunch+, available at: https://techcrunch.com/2021/01/20/ digital-securities-platform-istox-closes-50-million-series-a-to-make-private-equity-accessible-to-more-investors/ (accessed 10th December, 2021).
- (9) See SDX, available at https://www.sdx. com/ (accessed 10th December, 2021).
- (10) Ledger Insights (October 2020) 'ASX delays blockchain settlement system to 2023', available at: https://www.ledgerinsights.com/asx-delays-blockchain-settlementsystem-chess/ (accessed 10th December, 2021).
- (11) Baker, S. (February 2021) 'Nordea cuts Nordic subcustody business, picks Citi as strategic referral partner', available at: https://www.pionline.com/assetservicing/nordea-cuts-nordic-subcustody-business-picks-citi-strategic-referral-partner (accessed 10th December, 2021).

© 2022 Northern Trust Corporation. Head Office: 50 South La Salle Street, Chicago, Illinois 60603 U.S.A. Incorporated with limited liability as an Illinois corporation under number 0014019. Products and services provided by subsidiaries of Northern Trust Corporation may vary in different markets and are offered in accordance with local regulation. This material is directed to professional clients on invended for retail clients. For Asia-Pacific markets, it is directed to professional and wholesale clients or investors only and should not be relied upon by retail clients or investors. For legal and regulatory information about our offices and legal entities, visit northerntrust.com/disclosure requirements: The Northern Trust Corpany, London Branch, Northern Trust Global Investments Limited, Northern Trust Securities LLP and Northern Trust Investor Services Limited, 50 Bank Street, London E14 5NT, Northern Trust Global Services SE UK Branch, Northern Trust Global Investments Limited, Northern Trust Global Services SE UK Branch, So Bank Street, London E14 5NT, Northern Trust Global Services SE Seveden Bankfilial, Ingmar Bergmans gata 4, 1st Floor, 114 34 Stockholm, Sweden, registered with the Swedish Companies Registration Office (Sw. Bolagsverket) with registration number 11654; Northern Trust Global Services SE Nore, Passa 2016 (Sw. Bolagsverket) with registration number 11654; Northern Trust Global Services SE Abu Dhabi Branch, registration Number 000000519 licenced by ADGM under FSRA #160018; Northern Trust Global Services SE, address 10 Rue du Château d'Eau L-3364 Leudelange Lueenbeurg, and regulated by the Sweis Financial Market Supervisory Authority FINMA. The Northern Trust Global Services SE supervised by Subsciences de commerce et des Societes), is authorised and supervised as a credit institution by the ECB and CSSF. The Branch has its registered office at Grosspeter Tower, Grosspeteralage 29, 4052 Basel, Switzerland, and is authorised and regulated by the Swiss Financial Supervisory Authority FINMA. Th