



FinCoNet

INTERNATIONAL FINANCIAL CONSUMER
PROTECTION ORGANISATION

Briefing Note

Impact of COVID-19
on market conduct supervision

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Disclaimer

This report is based on responses to a FinCoNet survey conducted between June-September 2021 as well as additional case studies collected by FinCoNet SC4. Information cited in this report was updated during the drafting process. Nonetheless, subsequent changes in circumstances and practices may render some information out of date.

The opinions expressed herein do not necessarily reflect the official views of FinCoNet member organisations.

About FinCoNet

In November 2013, FinCoNet was formally established as a new international organisation of financial consumer protection supervisory authorities. FinCoNet is recognised by the Financial Stability Board and the G20.

The goal of FinCoNet is to promote sound market conduct and enhance financial consumer protection through efficient and effective financial market conduct supervision, with a focus on banking and credit.

FinCoNet members see the Organisation as a valuable forum for sharing information on supervisory tools and best practices for consumer protection regulators in financial services. By sharing best practices and by promoting fair and transparent market practices, FinCoNet aims to strengthen consumer confidence and reduce systemic consumer risk.

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Glossary

Term	Definition
Application programming interface (API)	Allows two or more computer programs to communicate with each other.
Artificial intelligence (AI)	A field of computer science that allows computer programs to perform tasks such as problem-solving, speech recognition, visual perception, decision-making and language translation. AI can ask questions, discover and test hypotheses and make decisions automatically based on advanced analytics operating on extensive data sets.
Big data	Digital tools and information systems capable of analysing large volumes of different types of data from varied sources often in real time. This capability is driven by the increased availability of structured data, the ability to process unstructured data, increased data storage capabilities, advances in computing power and specialized parallel computer architectures.
Chatbots	Computer programs designed to simulate conversation with human users, widely used for online customer services by financial services providers and others. More recent chatbots use ML for improved performance.
Cloud	An online network (“cloud”) of hosting processors that increase the scale and flexibility of computing capacity. Enables convenient on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage facilities, applications and services) that can be rapidly released with minimal management effort or service provider interaction.
Data visualisation	Tools to help in the effective communication and clear understanding of data through the use of charts, plots and other graphic “visuals”. It makes complex data more accessible, understandable and usable.
Machine learning (ML)	Tasks performed by computer systems based on patterns and continuous inference. Supervised ML uses an approach based on training a model with already known inputs and outputs (such as a list of customers’ credit status) which will result in a general rule to apply to future cases. Unsupervised ML identifies complex processes and patterns without previous guidance or training datasets.
Natural language processing (NLP)	Technology that can transform natural languages into computer codes that can be understood by computers. This is the technology behind iPhone’s Siri and Amazon’s Alexa, for example. It also allows for topic modelling—statistical models that identify recurring topics or themes across a collection of documents.
Off-site surveillance	For the purposes of this Briefing Note, off-site surveillance can be understood as a traditional practice of supervisory authorities monitoring firms’ compliance with the applicable legal and

	regulatory framework, at a distance, (i.e., all surveillance apart from conducting on-site inspections).
On-site inspections	In-person visits by supervisors to premises of a regulated entity
Remote supervision	Supervisory activities carried out at a distance that would ordinarily require on-site presence, namely through direct access to supervised entities' information systems.
Risk assessment	A systematic process for assessing and integrating professional judgements about probable adverse conditions and/or events.
Social media monitoring	Monitoring social media, such as online brand mentions and financial entities' Facebook and Twitter accounts, to identify trends in areas such as product offerings and consumer complaints.
Structured data	Data organized into a standardized format, typically in a database. Also refers to a data set requested from regulated entities.
SupTech	Application and use of innovative or cutting-edge technology by supervisors to carry out their supervisory and surveillance work more effectively and efficiently
Text mining	Automated process of deriving high-quality information from unstructured text such as websites and social media, typically by finding patterns and trends. Used to monitor financial entities' marketing campaigns and consumer comments, in particular.
Thematic reviews	Assessment of a current or emerging risk regarding an issue or product across several regulated entities in a sector or market.
Topic modelling	A form of text mining that searches large bodies of content to identify statistical trends in terms of the main topics within those publications.
Unstructured data	Data in non-standardized formats that cannot be automatically organized in traditional databases with predefined fields for easy sorting, extraction and analysis. This often refers to written documents, pictures and recordings.
Vulnerable consumer	A consumer who may have a limitation due to illness, impairment, disability, aging or a lack of financial resources or education that places the client at risk of financial exploitation.
Web scraping	Automated process to extract data from websites for later retrieval or analysis.
Workflow tools	IT tools that provide an infrastructure for the orchestration, monitoring and automation of a pre-defined sequence of tasks (the workflows) directed towards specific goals and objectives. Automation in this category may include the connection to third-party systems to obtain information needed for decision-making; directing the group responsible for specific tasks at each step; execution of some actions such as email or letter composition and distribution; and decision-making based on traditional rule-based algorithms or newer machine-learning algorithms. Some SupTech tools are particularly useful in managing communication among consumers, supervisors and regulated entities more quickly.

Executive summary

When the COVID-19 pandemic broke out in early 2020, FinCoNet members quickly understood that the public health crisis and related government measures would have an impact on the financial sector and thus the work of the market conduct supervisors who comprise its membership. Additionally, supervisory authorities themselves were subject to government measures to contain the virus, particularly lockdowns, meaning many supervision staff had to perform their jobs remotely. The extraordinary crisis brought on by COVID-19 challenged supervisory authorities to find new ways to do their work, in very short order.

In mid-2021, FinCoNet's Standing Committee 4 (SC4) surveyed market conduct authorities around the world to understand how they addressed COVID-related challenges. It focused on the impact of remote work and the use of supervisory technology (SupTech) tools in the new environment shaped by COVID-19. This report summarises the results from 19 authorities that took part in the survey and provides several case studies illustrating how individual authorities adapted to the challenges brought on by the pandemic.

New challenges

Nearly three in four respondents reported that certain areas of conduct supervision had grown in importance during COVID-19. These areas included managing complaints, monitoring advertising, delivering consumer education, monitoring financial relief measures such as loan-repayment moratoria, and increasing regulatory reporting. To illustrate the increased digitalisation brought about by the pandemic, respondents noted the growing prominence of online advertising and other digital communication by regulated entities. At the same time, consumers accelerated their own adoption of financial products and information through the same digital channels.

Almost 85% of respondents implemented remote work (i.e., working from home) for supervisory staff during the pandemic, which required authorities to adapt policies, systems and procedures. Respondents noted that the adjustment to remote work affected all functions of market-conduct supervision. The areas required the greatest modification were on-site inspections, reporting and complaints handling, as well as coordinating with other regulatory authorities and meeting their requirements. More than one in four respondents said that due to the pandemic, their authorities had created new areas of market conduct supervision in the face of risks that had grown in importance. The most prominent area was the monitoring of government relief measures for consumers.

Main findings

1. Authorities adjusted their supervisory approaches and regulatory frameworks to adapt to evolving challenges while preserving their supervisory activities. About two-thirds said the pandemic's greatest impact was on their ability to conduct effective on-site inspections.
2. They experienced challenges in the following areas: new/emerging aspects of market-conduct supervision; communication between the supervisory authority and regulated entities; and digital inclusion and protection of vulnerable consumers.

3. Authorities had to introduce policies or enhance systems and procedures to support this pandemic adaptation.
4. Authorities said remote work yielded the following advantages: the development of new supervisory approaches; a perceived increase in productivity through flexible communication; cost savings due to reduced business travel; and improvements in employee work-life balance. Authorities were split evenly (42%-42%) on whether their organisations would continue to perform supervisory functions remotely.
5. Most responding authorities used SupTech tools during the pandemic; however, more than one-third did not. SupTech tools were used most commonly for data collection and data analysis. Only 16% reported that SupTech significantly improved supervisory processes; 53% reported modest improvements due to technology.
6. SupTech tools enabled authorities to effectively carry out their duties in protecting consumers, emphasising their growing role in helping authorities fulfil their mandates.
7. The use of such tools presented three main challenges:
 - a. Certain tools were not designed for remote supervision;
 - b. Staff faced difficulties adapting to meet new requirements and reporting deadlines; and
 - c. It was challenging for supervisors to gain access to regulated entities' internal systems to conduct remote inspections.
8. In general, authorities have benefited from efficiency gains realized through SupTech, improving how they supervise market conduct and helping them to keep up with the financial sector's digital transformation.

Looking ahead

The COVID-19 pandemic altered the way many authorities conduct supervisory activities. Regulated entities and their customers began to do much more business through online channels, and many authorities turned to SupTech to help them carry on and to render their own activities more efficient, particularly during lockdowns that required remote inspections and other at-home work by staff. During the crisis, many governments gave their authorities new functions and duties, including:

- overseeing and monitoring government measures, such as loan payment moratoria, to respond to the pandemic's impact on financial consumers;
- mitigating the increased incidence of fraud in digital channels; and
- addressing the increased vulnerability of financial consumers.

These factors have triggered or accelerated the enhancement of SupTech tools in many jurisdictions. While the pandemic may have been the reason why so many authorities made the leap into remote supervision and regulatory digitalisation, both are likely to remain and possibly expand. Ongoing sharing and assessment of authorities' experiences in relation to SupTech tools and remote supervision will support improvement in the technologies, processes and policies that can enhance authorities' efforts, improve their efficiency and reliability and potentially expand their ability to conduct their work in protecting financial consumers.

1. Introduction

1.1. Background

In 2019-2020, FinCoNet Standing Committee 4 (SC4) surveyed innovation in market conduct supervision through the use of supervisory technology (SupTech) tools and other new approaches that support market conduct supervisors in their work. The summary report¹ concluded that given the rapidly evolving technological landscape of financial services provision, supervisors must adopt a proactive and resolute approach toward the use of digital technology. For example, supervisory authorities reported that they were developing SupTech tools to reduce or eliminate routine manual work in processing regulatory reports from financial services providers.

When the COVID-19 pandemic broke out in early 2020, FinCoNet members quickly understood that the public health crisis and related government measures would affect the financial sector and thus the work of the market conduct supervisors who comprise its membership. For example, jurisdictions may have expected their supervisory authorities to:

- monitor the delivery of COVID-related financial benefits for individuals, such as payment holidays for loans;
- support the financial sector by reducing regulatory requirements; and
- oversee government-imposed moratoria on loan payments or insurance premiums.

1.2. Overview of survey

Building on its earlier SupTech survey, and in accordance with the FinCoNet Programme of Work 2021-2022, SC4 conducted a survey in 2021 to gather insights into changes in market-conduct supervisory processes implemented during the pandemic, particularly due to remote supervision, and what has proven effective. It also examined the use of SupTech tools in the new environment shaped by COVID-19.

In June 2021, SC4 asked supervisory authorities around the world to respond to its Survey on Oversight Challenges and Evolution in Approaches for Conduct Supervisors in the Context of COVID-19, including Use of SupTech Oversight Tools.² It was open for responses until July 2021.

The survey explored three main sets of issues:

- the influence of the COVID-19 pandemic on conduct supervision and adaptation of internal processes to the new environment;
- challenges related to performing market-conduct supervision when working remotely; and

¹ [SupTech Tools for Market Conduct Supervisors](#)

² Please see Appendix A for full survey text.

- the effectiveness of SupTech tools and how authorities adjusted to the new environment resulting from the pandemic.

SC4 distributed the survey to a large number of jurisdictions and representative bodies, including FinCoNet members and observers. A total of 19 authorities provided responses.

1.3. Structure and purpose of briefing note

This briefing note provides an overview of how market conduct supervision adapted to the pandemic and its attendant restrictions. The note summarises the results of a 2021 survey and provides several case studies illustrating individual authorities' adaptation to the challenges borne of the COVID-19 crisis.

The survey confirmed that the COVID-19 pandemic fostered the transformation of aspects of market conduct supervision. Jurisdictions adjusted their supervisory approaches and regulatory frameworks to adapt to evolving challenges while preserving their market conduct supervisory activities. Different jurisdictions experienced a variety of challenges as they adapted to the new environment. The results also revealed new areas of conduct supervision and some that increased in importance, and that many jurisdictions had increased their reliance on SupTech tools.

The briefing note is structured as follows:

- It begins with an overview of general challenges and changes brought about by the pandemic.
- It then describes how authorities adapted to remote work for supervision.
- It explores the use of SupTech during the COVID-19 pandemic, including the types of tools used and the challenges encountered in implementing them.
- It concludes with key findings and a brief chapter on looking ahead, including a summary of respondents' perspectives on how market conduct supervision may continue to evolve.

2. Challenges and changes brought about by the pandemic

2.1. General challenges

All respondents reported that COVID-19 affected their market conduct supervision. The survey data revealed the following top challenges:

- 42%: identifying, monitoring and supervising new aspects of market conduct that emerged with the pandemic (e.g., websites, refinancing, moratoria on debt repayment, and new digital products and services);
- 37%: communication between the supervision authority and regulated entities; and
- 21%: cross-cutting concerns such as digital inclusion and protection of consumers experiencing vulnerability or financial hardship.

Generally, supervisory authorities altered their policies and practices to support both specific and broad government action (see: Introduction) to address the pandemic threat. Due in great part to remote supervision, the relationships within and among supervisory authorities changed, as did interactions between supervisory authorities and regulated entities. Four respondents adjusted their supervisory expectations to provide regulated entities with regulatory relief by, for example, easing certain reporting requirements.

Among the greatest operational difficulties experienced by respondents during the transition to remote supervision was maintaining or improving communication between the market-conduct supervisory authorities and their regulated entities. Many respondents, such as Canada, identified a need to improve the collection of timely and accurate information from those entities (see Box 1 and Box 2).

The pandemic also accelerated certain trends. For example, respondents said financial consumers, regulated entities and market conduct supervisory authorities increased their use of, and reliance on digital tools and communication channels. Respondents noted that regulated entities had introduced innovative digital financial products and services. These have posed regulatory challenges in terms of how they are marketed, including advertising and retail sales activities. In addition, the pandemic gave rise to an increase in small-scale scams and other forms of fraud. In the survey, respondents highlighted the areas of supervisory focus that increased during the pandemic and new ones that emerged in that time.

Box 1. In Canada, rapid data reporting supports financial stability

In March 2020, the Financial Consumer Agency of Canada (FCAC) directed regulated entities to provide data about their implementation of consumer-relief measures related to credit products, which the federal government introduced due to the pandemic. FCAC asked regulated entities to report the data each week so the pandemic's evolving impact on the economy—and that of related federal measures to provide relief—could be assessed quickly. As the situation stabilized, the reporting frequency changed to monthly.

FCAC succeeded in collecting payment-deferral data for mortgages, credit cards, loans and lines of credit for consumers and small business customers. The data was then used by FCAC in tandem with other federal financial authorities to assess financial well-being during the pandemic, and thus stability of the entire financial system.

FCAC worked with its regulated entities to ensure data accuracy and to identify potential challenges entities faced in delivering their reports in a timely manner. FCAC also communicated to entities that it expected them to implement the relief measures in a fair and appropriate manner and that it would monitor the effectiveness of that implementation.

2.2. Areas that became more important

Nearly three-quarters of respondents said some areas of conduct supervision became more important during COVID. These areas included managing complaints, monitoring advertising, delivering consumer education, monitoring financial-relief measures and increasing regulatory reporting. Respondents said the general boost that pandemic restrictions gave to digital technology was evident in the growing prominence of online advertising and other digital communication by regulated entities. In parallel, consumers increased their uptake of financial products and information through these channels.

2.3. New or expanded areas of conduct supervision

Five respondents said that because of the pandemic, their authorities had created new areas of market conduct supervision in the face of risks that have grown in importance. The most prominent area was the monitoring of government relief measures for consumers.

Respondents also observed that an increase in fraud, including small-scale scams, impacted vulnerable consumers and led some jurisdictions to increase fraud surveillance by, for example, creating dedicated working groups. Others indicated they may develop new supervisory tools related to fraud surveillance. Some respondents also gathered information to identify and analyse trends in their economies related to consumer payment habits and means, including the accelerated use of digital channels.

Box 2. UK's FCA uses surveys to monitor financial resilience

In response to the pandemic crisis, the UK's Financial Conduct Authority began monitoring the effects of the economic downturn on firms' solvency by rapidly increasing the data it collects on firms. The FCA sent its Coronavirus Financial Resilience Survey to 23,000 regulated firms to understand the real-time effect of the pandemic on the finances of the entities the FCA prudentially regulates. The FCA also used existing regulatory reporting data, enhanced data purchased from a third-party provider and in-depth analysis of liquidity to monitor a number of the most significant firms.

The market downturn driven by the pandemic put many entities at risk of failing. By October 2020, FCA had identified 4,000 financial services firms with low financial resilience and at heightened risk of failure. These were predominantly small- and medium-sized firms and approximately 30 per cent had the potential to cause harm in failure.

The survey was later changed to the Financial Resilience Survey and FCA is considering replacing it in 2023 with a new regulatory report. The aim is to:

- reduce the administrative and financial burden that an ad hoc survey places on regulated entities;
- increase the quality and consistency of financial resilience data received from regulated firms.

2.4. Challenges related to changes

About half the respondents indicated they were challenged by shifting priorities in conduct supervision and the appearance of new areas of focus. Several said they had to adapt rapidly to the changes caused by the pandemic. These included integrating relief measures for consumers into their monitoring activities and coordinating with other government agencies in their jurisdiction.

Some respondents said it was challenging to collect, process and otherwise manage large volumes of data related to the pandemic, as they lacked the operational capacity to do so. Moreover, remote supervision presented a challenge to several authorities, both in the transition from traditional in-office work to remote work, and in changes to the tools and practices available to perform supervisory activities. Some examples included onsite supervision and internal tools and systems that are difficult to access offsite from the office.

However, respondents said they successfully overcame these challenges while continuing their ongoing supervisory activities, policy and program responses and consumer education work (see Box 3).

Box 3. In Portugal, SupTech yields fast inspections, compliance action

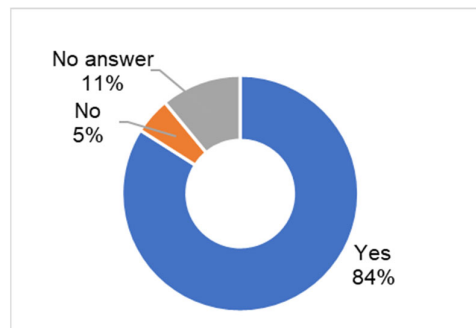
During the pandemic, Banco de Portugal used its GPC SupTech tool to help it oversee entities' compliance with information requirements regarding moratoria applicable to credit agreements. GPC tool is the acronym for Conduct Supervision Process Management Tool, which integrates all stages of the inspection workflow: planning, off-site inspection analysis, findings report, enforcement measures and follow up.

Banco de Portugal carried out remote inspections ("mystery shopping") of entity websites. Using the GPC tool for the entire process allowed Banco de Portugal to inspect 99 credit institutions for compliance with 1,683 legal requirements—all in just 15 days. As a result, Banco de Portugal issued specific orders and recommendations to credit institutions to correct irregularities.

3. Remote work during the pandemic

The COVID-19 pandemic affected the way financial institutions and authorities carry out their day-to-day activities. Social distancing measures, in particular, necessitated new ways of conducting supervisory tasks. As a result, many authorities established remote-work arrangements in a short span of time, mainly so that staff could work from home (see Figure 1).

Figure 1. Share of organisations having introduced remote work for supervision



Note: N=19 respondents

Source: FinCoNet Survey on oversight challenges and evolution in approaches for conduct supervisors in the context of COVID-19, including use of SupTech oversight tools (2021)

Close to 85% of respondents introduced remote work for supervision staff in response to the pandemic. Authorities had to adapt some supervisory functions accordingly (see

Box 4. Portugal increases data demands to support off-site inspections

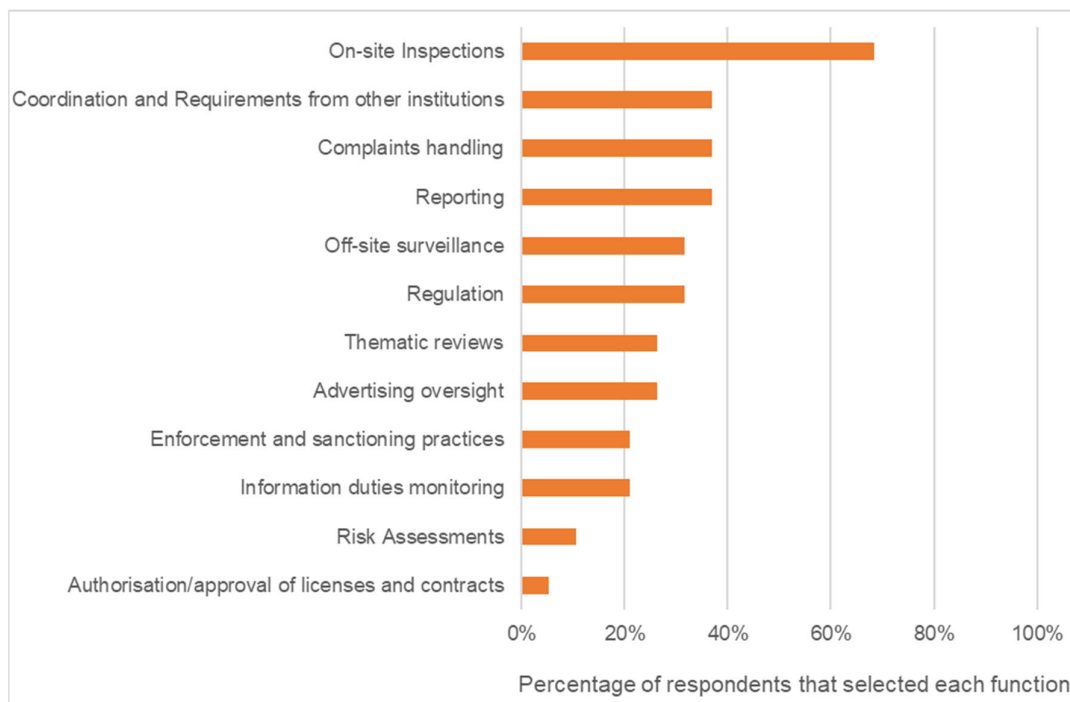
When Banco de Portugal was adapting from on-site to off-site inspections, it began to request more information from regulated entities. Since the supervisors could not physically get the evidence needed to support inspection conclusions (for instance, through screen prints or data extracted directly from the institutions' servers), they gained remote access to institutions' applications. Cross-checking and other data controls also increased to ensure it was not manipulated. Without weakening the execution of "pure" on-site inspections, a hybrid on-site/off-site inspections will continue to take place using the new methodologies, given the lessons learnt during the pandemic.

Figure 2). In many cases, this required new policies, systems and procedures (see Box 4). According to respondents, the adjustment to remote work affected all functions of market-conduct supervision. On-site inspections, reporting and complaints handling required the most modification, as did coordinating with other authorities and meeting their requirements.

Box 4. Portugal increases data demands to support off-site inspections

When Banco de Portugal was adapting from on-site to off-site inspections, it began to request more information from regulated entities. Since the supervisors could not physically get the evidence needed to support inspection conclusions (for instance, through screen prints or data extracted directly from the institutions’ servers), they gained remote access to institutions’ applications. Cross-checking and other data controls also increased to ensure it was not manipulated. Without weakening the execution of "pure" on-site inspections, a hybrid on-site/off-site inspections will continue to take place using the new methodologies, given the lessons learnt during the pandemic.

Figure 2. Conduct supervision functions adapted due to remote work



Note: N=19 respondents

Source: FinCoNet Survey on oversight challenges and evolution in approaches for conduct supervisors in the context of COVID-19, including use of SupTech oversight tools (2021)

According to the survey, the supervisory function most affected by remote work was on-site inspections. To adhere to COVID-19 protocols, many authorities had to adapt, reduce or even temporarily stop on-site inspections. For instance, Banco de Portugal and Bank of Italy replaced on-site inspections with remote inspections, using digital channels such as telephone and video conference. Peru’s Superintendency of Banking, Insurance and Private Pension Fund Administrators (SBS) adopted remote inspections and established internal guidelines for communication and remote access to supervised regulated entities’ systems. The Australian Securities and Investment Commissions (ASIC) also suspended on-site

inspections. As COVID-19 cases eased, they slowly introduced hybrid inspections by combining in-person interviews and video conferencing.

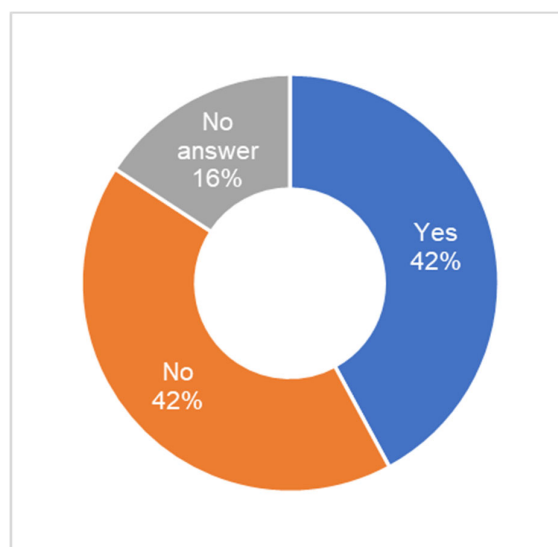
Authorities also adapted the way they carried out activities related to complaints handling and market-conduct reporting (i.e., how entities report to the authority and how the authority manages the data). In January 2021, Indonesia published a web-based platform called Consumer Protection Portal Application (APPK) to assist consumers in filing their complaints against regulated entities. This platform facilitated the monitoring of the resolution activities by the regulated entities in the stipulated time limit of 20 working days.

Supervisors also had to adjust other functions, such as advertising oversight and thematic reviews, to accommodate remote work. For example, in 2020, Peru's SBS launched its Electronic Market Conduct Management Report application. It replaced physical submissions, allowing regulated entities to submit, in a standardized digital format, their market-conduct management information such as the market conduct officer's work plan and related compliance. Bank Indonesia introduced a web portal and integrated contact centre for complaints handling and carried out complaint resolution virtually. BaFin of Germany significantly reduced its thematic reviews and replaced them with virtual conferences. Likewise, Central Bank of Brazil increased the use of computerized communication tools, such as video conferencing and digital note taking.

As Figure 3 shows, authorities were split evenly on whether their organisations would continue to perform supervisory functions remotely—those that, pre-pandemic, would have been done on site at regulated entities' premises.

- Eight out of 19 respondents (42%) said they expected some supervisory processes would continue to be performed remotely after the pandemic ended. Some respondents specified that a few days at the office may be necessary to perform off-site activities. For example, it may be that some systems can only be used by supervisors at their offices to protect highly sensitive information (i.e., there is no remote option to access or use such information). This group anticipated that a hybrid working system would be the future of market-conduct supervision, combining remote supervision and on-site inspections when needed.
- Another 42% respondents did not expect any processes to be performed remotely on an indefinite basis. They expected to return to the office as soon as feasible and resume performing supervisory activities on site.

Figure 3. Share of respondents indicating that some supervisory processes will be remote indefinitely after COVID restrictions end



Note: N=19 respondents

Source: FinCoNet Survey on oversight challenges and evolution in approaches for conduct supervisors in the context of COVID-19, including use of SupTech oversight tools (2021)

3.1. Adaptation to remote work

The adaptation to remote work varied across jurisdictions and supervisory functions (see Box 5 for details). Respondents were asked to assess how their authorities adapted 12 supervisory functions and whether the function was interrupted during its adaptation. For all 12 functions except “on-site inspections”³, almost all authorities reported success without any interruption, and did not anticipate further adaptation.

As digitisation and innovation progress, supervisory authorities are making efforts to adapt supervisory functions to remote working. Based on the case studies provided by respondents, while the development and progress of AI and SupTech tools have accelerated the adaptation to remote working and streamlining of computing tasks such as evidence collection and analysis, it may be challenging to adapt some traditional supervisory functions to a remote work environment. For example, no respondents cited effective tools or practices for further adaptation of functions such as on-site inspections, enforcement and sanction practices, and authorisation/approval of licenses and contracts.

Respondents reported that remote working brought several advantages and fewer disadvantages.

Advantages:

³ For on-site inspections, six respondents reported successful adaptation without any interruption of the function; nine reported successful adaptation with an interruption of the function; two reported that the performance of this function was not adapted; and two did not answer.

- improved employee productivity and better teamwork through more flexible communication;
- cost savings due to reduced business travel;
- promotion of employee social welfare through increased flexibility in meeting professional and personal obligations; and
- innovation in market-conduct supervision, supervisory approaches and SupTech tools.

Disadvantages:

- challenges in communication and coordination;
- difficulties in integrating teams; and
- technological and logistical challenges.

Box 5. How authorities adapted to remote work

The Financial Consumer Agency of **Canada** moved to the Cloud, which is considered a secure solution, for seamless remote working. Remote work accelerated digitalisation of internal documentation and processes and the use of new digital tools to communicate and exchange data and other information with supervised entities.

Indonesia's Financial Services Authority (OJK) evaluated COVID-related hardship in every financial sector. To ensure a high rate of regulatory compliance despite COVID, OJK extended an important submission deadline by one month, for 2020 only. It relaxed certain reporting requirements, with no significant impact on analysis and decision making.

Central Bank of **Brazil** experienced a smooth shift from on-site to off-site supervision thanks to a methodology in development since 2014. Supported by its computerized SisCam system, Brazil had been optimizing on-site and off-site inspection activities since 2016. For example, on-site verification of financial-client documentation and financial operations is now available to supervisors in real time.

Bank **Indonesia** uses a digital customer-relations management (CRM) system to manage its consumer-complaint system. The data collected is used internally to support Bank Indonesia policy, including for market conduct supervision.

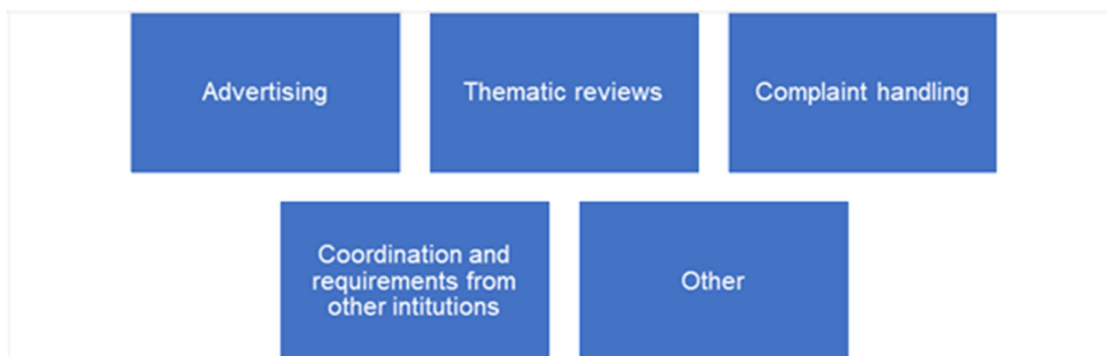
Ireland developed and implemented a hybrid working policy, combining remote and office work, that it trialled in 2022. As staff commutes to the office will be lower than pre-pandemic levels, this initiative will ultimately be a major contributor to the government's consolidated attempt of reaching net-zero carbon emissions.

As almost all Bank of **Spain** employees worked remotely during the pandemic, the regulator had to increase its telecommunications network capacity to handle greater data traffic and provided staff with equipment and met other needs related to working from home. In general, the transition from on-site to off-site work did not involve major difficulty.

3.2. Further remote-work adaptations going forward

COVID-19 accelerated organisational and culture change and created opportunities for significant innovation continuing well beyond the pandemic. In that light, respondent authorities are considering further adaptation of the supervisory functions listed in Figure 4.

Figure 4. Supervisory functions that may be further adapted



Note: N=19 respondents

Source: FinCoNet Survey on oversight challenges and evolution in approaches for conduct supervisors in the context of COVID-19, including use of SupTech oversight tools (2021)

4. SupTech use during the COVID-19 pandemic

Nearly half the respondents indicated that SupTech tools contributed to the oversight of new areas and those that gained more importance due to the pandemic. SupTech tools have contributed to different supervisory functions such as monitoring regulated entities' activities and advertisements (see Box 6), receiving and processing large amounts of information, and handling consumer complaints.

Some respondents reflected that during the pandemic, there was an increase in the amount and/or frequency of data delivered to them by regulated entities. To receive and process it, many implemented new digital tools or adapted others. These have been used to monitor financial services advertisements published in printed media such as newspapers and magazines, and in social media (e.g., Twitter, Instagram and Facebook). Respondents also reported using web-scraping platforms to identify and monitor any risk of misleading and deceptive advertising targeting vulnerable consumers. SupTech tools also served to manage consumer complaints.

Box 6. Australia uses SupTech to monitor advertising

The Australian Securities & Investments Commission (ASIC) uses consumer intelligence tools, such as Brandwatch, to monitor and examine reports of misconduct and changes to the retail landscape. It provides good coverage of key forums and topics discussed by relevant consumer demographics.

ASIC monitors credit advertisements using tools including Meta's Ad Library and Google. During COVID, monitoring techniques included reviewing credit provider official accounts and developing 'keyword' searches that were specific to the credit product being monitored. Through this, ASIC identified potentially misleading advertising. It also made general observations about advertising trends and about which entities continued to advertise products during the pandemic. It was observed that the majority of COVID-related advertising content from credit providers was directed at encouraging consumers to contact their credit provider if they found themselves in hardship.

ASIC also hired a SupTech provider for a six-week trial of its artificial intelligence and machine-learning products, to identify potentially problematic content on websites. The trial went beyond credit products to offerings such as managed investment schemes, derivatives, superannuation, insurance and financial advice. The platform identified probabilistically risky content. These were reviewed by staff to identify potentially misleading or deceptive representations and advertising that leveraged the pandemic. ASIC concluded the tools were effective in identifying cases where high-risk words were used, but less effective in identifying nuanced cases of misleading or deceptive advertising.

SupTech tools have been used to:

- synthesise large data sets;
- facilitate reporting by supervisory staff to senior management;
- monitor fees, charges and commission;

- monitor consumer sentiment toward regulated entities, as evidenced on social network sites; and
- assist conduct supervisors in key areas such as payments, consumer investments and the financial resilience of regulated entities.

Nearly half the respondents indicated the pandemic triggered or accelerated the enhancement of SupTech tools in their jurisdictions. As a result of the pandemic, many jurisdictions are considering implementing new SupTech tools to manage supervisory efforts. Others said the pandemic accelerated the development of SupTech tools already in the planning stage (see Box 7).

Box 7. Peru implements Suptech tools for efficient reporting, monitoring social media, and answering institutions' questions about the interpretation of market conduct regulation

Since 2018, Peru's Superintendency of Banking, Insurance and Private Pension Fund Administrators (SBS) has been working on a project to strengthen its market conduct supervision model. The aim has been to detect market conduct weaknesses in regulated entities, in a timely manner and to integrate supervision efforts between on-site and off-site activities. The implementation of new SupTech related to this project accelerated during the pandemic.

In 2020, SBS launched its Electronic Market Conduct Management Report application that entities use to report standard information related to market-conduct management. An example is the market-conduct officer's annual work plan and its progress. In 2021 a similar digital application was launched for insurance companies. As of June 2022, 49 financial institutions and 17 insurance companies were reporting via the application.

Also, in 2020, SBS implemented a social-media-monitoring tool to collect information about financial institutions' mentions on Twitter, Facebook, YouTube, Instagram and news media sites. This information is subjected to "sentiment analysis" to identify possible misconduct. If an entity's misconduct is confirmed, then it is notified to correct it. In the third quarter of 2022, SBS analysed close to 138,000 online mentions, of which roughly 55,000 had negative connotations.

Furthermore, in January 2022, SBS launched the Market Conduct Question application through which financial institutions access a database of questions and answers about interpretations of market-conduct regulations in a standardized manner. Institutions can pose new questions when they do not find answers they seek in the database. By November 2022, the database included 332 questions and answers, and 36 regulated institutions had posed new questions via the application.

Finally, SBS plans to evaluate the implementation of new digital tools to enhance market conduct supervision through the use of big data analysis, API technology, NLP, etc.

SupTech tools⁴ vary from those used for collecting both structured and unstructured data, to data analysis methods such as natural language processing (NLP), workflow applications and risk profile/early warning tools.

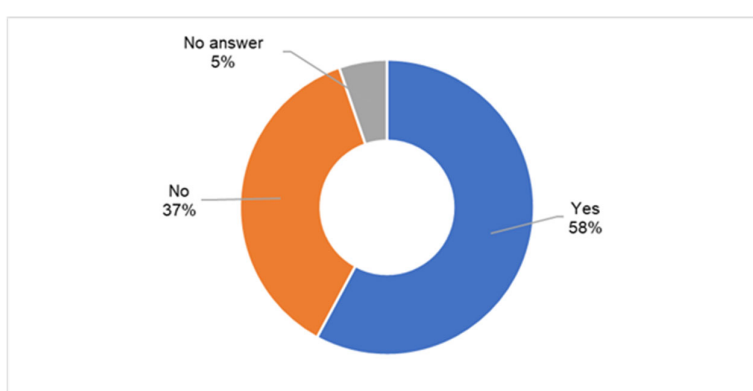
⁴ Please see the glossary for descriptions of many of these tools.

The remainder of this chapter highlights findings related to SupTech, including which type(s) of tools were used by different authorities, how they were used during the pandemic to support work programmes, what each type of tool enabled authorities to do, and their effectiveness.

4.1. Prevalence of SupTech

The survey asked authorities whether they used any SupTech tools to perform their functions in the new COVID environment. As shown in Figure 5, while the majority of responding authorities used SupTech tools to carry out functions in the new environment caused by the pandemic, more than one third did not.

Figure 5. Respondents using SupTech tools to perform functions during pandemic



Note: N=19 respondents

Source: FinCoNet Survey on oversight challenges and evolution in approaches for conduct supervisors in the context of COVID-19, including use of SupTech oversight tools (2021)

4.2. Types of SupTech tools, their adoption and effectiveness

The following table provides an overview of the types of SupTech tools respondents said they employed during the pandemic and how effective they were; they also indicated the degree to which use of the tool improved their work.

As Table 1 shows, SupTech is of greatest use in data collection. The majority of respondents applied such tools during the pandemic and found them most useful in structured data collection (such as e-reporting by regulated entities).

Unstructured data analysis, such as topic modelling using NLP was less popular among respondent authorities, as was the use of SupTech workflow tools. It should be noted that response rates for the effectiveness questions were quite low, so these summaries may not accurately capture authorities' views on this issue.

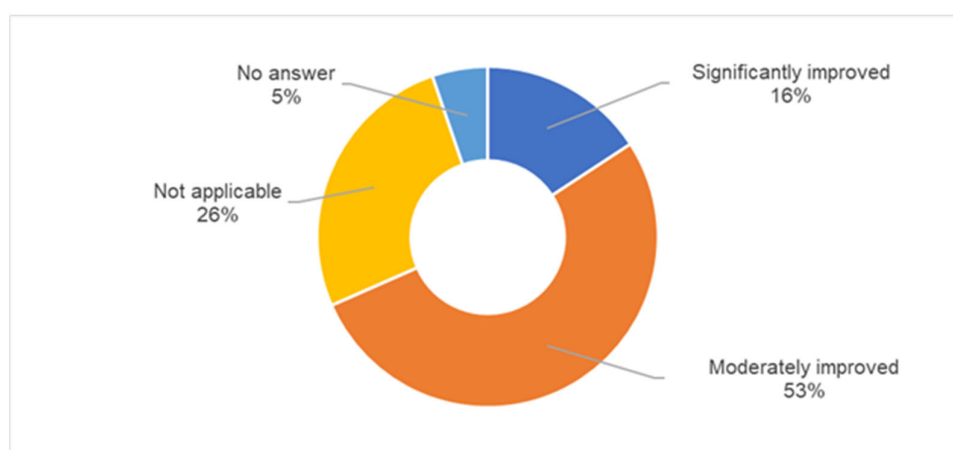
Table 1. Types and effectiveness of SupTech tools used in the pandemic

SupTech tool type	Authorities employing tool	Effectiveness of tool*
Structured data collection (e-reporting): tools to fill in the data	Central Bank of Brazil, Bank Indonesia, OJK (Indonesia) Central Bank of Mauritius, SBS (Peru), FCA (UK), AMF (Quebec, Canada), Banco de Portugal	5
Structured data collection (e-reporting): tools to exchange the data	AMF (Quebec, Canada), Central Bank of Brazil, Bank Indonesia, SBS (Peru)	5
Unstructured data collection (web scraping, social media monitoring)	ASIC (Australia), Central Bank of Brazil, OJK (Indonesia), FSA (Japan), SBS (Peru), FCA (UK), ACPR (France)	3
Structured data analysis (NLP text mining)	ASIC (Australia), Central Bank of Brazil, FCA (UK), FSA (Japan)	4
Unstructured data analysis (NLP topic modelling)	ASIC (Australia), FCA (UK)	4
Workflow	Central Bank of Brazil, SBS (Peru), Banco de Portugal	5
Risk profiling/early warning	ASIC (Australia), Central Bank of Brazil, Bank of Mauritius, SBS (Peru), FCA (UK)	5
Other (structured data collection for complaints, handling applications)	OJK (Indonesia)	5

*Based on average score between 0 (ineffective) and 5 (very effective).

4.3. Overall improvements due to SupTech

Figure 6 shows that about one half of the respondents indicated SupTech tools moderately improved their overall supervisory process, whereas 16% noted significant improvements.

Figure 6. Improvement SupTech brought to supervisory processes

Note: N=19 respondents

Source: FinCoNet Survey on oversight challenges and evolution in approaches for conduct supervisors in the context of COVID-19, including use of SupTech oversight tools (2021)

Jurisdictions that reported significant improvements due to SupTech tools noted these were in areas such as data collection, consolidation, validation, visualisation and analysis. They said these improvements increased operational efficiency (see Box 8), thereby releasing resources to perform enhanced risk assessment and monitoring. They also cited improvements in inspection processes.

Box 8. Brazil uses standardized forms, SupTech tool to increase efficiency

The Central Bank of Brazil's SisAPS tool allowed its supervisors to create tailored requisition forms through which regulated entities provide important data. Supervisors write in answers and upload documents, worksheets, databases and other types of files as required.

Inspectors used standardized templates to write reports—inserting findings, conclusions and official letters—that then go for higher-level approval. SisAPS automatically provides supervisory report minutes that are reviewed and revised by the inspector in charge. At the end of the inspection, the BCB uses SisAPS to send findings to the entity. Follow-up of each finding is also made through SisAPS, with the interaction duly recorded in SisAPS until all findings are addressed.

Communication and data exchange with institutions is provided in an agile, fast and cost-free manner. Quantitative and qualitative data collected by SisAPS are segmented and entities are supervised based on different risk categories.

4.4. Challenges in implementing SupTech

Respondents were asked to rate the extent to which regulated entities faced obstacles related to the implementation of SupTech in their jurisdiction. None of the 17 respondents

characterised these challenges as “extremely difficult”. Six indicated it was “moderately challenging” and two responded it was not challenging at all.

They indicated that the difficulties faced by regulated entities could be classified as either pandemic-specific or broader challenges.

Pandemic-specific challenges included:

- re-organization of the working environment due to adaptation to remote work;
- difficulty meeting deadlines for report submission and data requirements; and
- the need to provide supervisors with remote access to regulated entities’ internal systems when it became impossible to continue conducting on-site inspections of those systems.

Non-pandemic challenges included:

- additional unbudgeted costs;
- need to train staff in SupTech;
- non-standard rules and lack of standardized taxonomy for financial reports;
- differences in technology and fast technological evolution;
- lack of need due to archaic legislation and requirements;
- regulators expect more high-quality, timely data to guide decision making; and
- systems and processes were being used in ways their designers had not envisaged.

Survey responses indicated authorities took steps to help supervised institutions address challenges by, for example, relaxing regulatory requirements (see Box 9), establishing closer communication with regulated entities or issuing consultations on data requirements and accepting suggestions on how to improve the implementation of SupTech.

Box 9. Canada reduces regulatory burden early in pandemic

Early in the pandemic, Canada’s FCAC shifted its monitoring and reporting expectations to focus on federal consumer-relief measures implemented by regulated entities as a response to the pandemic. FCAC undertook this shift while ensuring regulated entities continued to comply with their legislative obligations, codes of conduct and public commitments.

FCAC recognized COVID-19’s impact on regulated entities’ business functions, regulatory compliance and data reporting. As a result, FCAC worked with other federal financial-services authorities to reduce the reporting burden, adjusted supervisory expectations and provided flexibility where required. FCAC also collaborated with other federal authorities to ensure a coordinated return to normal supervisory and regulatory activities, such as industry consultations, normal reporting and monitoring.

4.5. Coordinating SupTech implementation

Most respondents indicated a sufficient level of coordination between authorities, which was in many cases accelerated by the pandemic. The majority of responding authorities (63%) reported having in place close coordination among authorities regarding the implementation of SupTech. For about one third of these respondents, the pandemic brought an increased level of coordination, namely regarding the use of technology and operating procedures. Some respondents also highlighted that closer coordination took place in their jurisdiction regarding the overall response to the COVID-19 pandemic, particularly in managing support measures for consumers. Only one respondent reported the need for closer coordination among authorities in their jurisdiction.

4.6. SupTech use in qualitative analysis

Most respondent jurisdictions said that regardless of the pandemic context, SupTech tools were especially useful in supporting the collection and processing of large amounts of unstructured qualitative data. The adoption of workflow tools supported supervisory activities and automated administrative tasks, giving supervisory teams more time for substantive analysis.

The survey asked respondents how SupTech tools could be used to supervise qualitative criteria, such as sales practices and fair treatment of consumers, in the context of COVID-19. Overall, respondents were moderately positive, with many giving examples of how their authority already employed SupTech for this purpose. Others reported that they were in the early stages of applying SupTech in this way.

Respondents said the most effective SupTech tools in this regard are those, such as web scraping applications, that gather data from publicly available sources. By searching for key words, supported by artificial intelligence capabilities, supervisors can identify consumer dissatisfaction on social media, particularly through complaints and queries posted on social media platforms. Similar tools can also carry out automated advertising oversight and collect and process information presented in financial services providers' websites, particularly regarding credit contract conditions. For example, in 2021 the Banco de Portugal implemented a SupTech tool using NLP for credit-contract models analysis. After the contracts were assessed, the bank issued specific orders to institutions to change contracts to comply with legal requirements.

Respondents indicated that SupTech tools may also be valuable in overseeing information duties, namely by helping supervisors to validate unstructured data such as draft credit contracts and pre-contract information. Supervisors can do so with SupTech tools such as NLP and machine learning, which automatically assess large volumes of data identifying clause-specific terms related to sales practices and potential misconduct.

Respondents also said voice-to-text tools and voice analytics helped supervisors to monitor regulated entities' call records to identify inappropriate sales methods and the provision of inaccurate information. This kind of monitoring became more relevant during the pandemic: phone and online interactions between sellers and consumers increased, and so did complaints related to misunderstandings about services and measures such as loan moratoria (see Box 10). Additionally, respondents said that SupTech tools are valuable in helping supervisors handle the large number of information requests they receive. They can automate classification of information requests, promoting the identification of unfair

treatment and incorrect sale practices, and propose responses. This type of tool supported by a chatbot usually involves both NLP and ML.

Finally, respondents reported that complaint-handling procedures also benefit from workflow management technologies and systems. These systems help automate internal processes, provide better quality data to supervisors and generate findings with regard to misconduct by capturing and analysing potential anomalies.

Box 10. Bank of Spain monitors impact of pandemic measures

Bank of Spain, in its market conduct surveillance function, monitored the use of new government measures introduced to help consumers during the pandemic. It did so mainly by drawing on four data sources:

- e-mail and telephone queries;
- new regulatory reports on loan-payment moratoria;
- desk-based research into regulated entities' online content; and
- complaints.

The Bank of Spain needed up-to-date tools (Python; Power BI) to handle the new and larger volumes of data generated by these requirements.

Consumers submitted to the bank almost 60% of their complaints via online channels that employed new consumer-authentication methods implemented in October 2019. This development was decisive in helping consumers and the Bank of Spain to tackle the unprecedented situation created by COVID-19.

Moreover, monitoring the new consumer-protection measures reinforced coordination between Bank of Spain departments and other government agencies. New tools, namely Webex and Microsoft Teams, facilitated this communication.

5. Findings

The following key findings emerged from SC4's analysis of the survey results.

5.1. Overview of conduct supervision

Authorities reported that the COVID-19 pandemic had affected their market conduct supervision. They adjusted their supervisory approaches and regulatory framework to adapt to evolving challenges while preserving their supervisory activities.

Authorities experienced challenges in the following areas: new/emerging aspects of market conduct supervision; communication between the supervisory authority and regulated entities; and digital inclusion and protection of vulnerable consumers.

SupTech tools helped supervisors monitor regulated entities' activities and advertisements, receive and process entities' information, and handle complaints against regulated entities. The pandemic expanded the development and use of these tools.

5.2. Influence of, and adaptation to, remote supervision

Most regulatory staff worked remotely in response to COVID-19. Authorities had to introduce new policies or enhance existing systems and procedures to support this pandemic adaptation.

Authorities said remote work yielded the following advantages: the development of new supervisory approaches; a perceived increase in productivity through flexible communication; cost savings due to reduced business travel; and improvements in employee work-life balance.

SupTech tools supported the adaptation to remote supervision and to streamlining data collection and analysis and will continue to do so as digitalisation progresses

5.3. Use of SupTech tools during the pandemic

Most responding authorities used SupTech tools during the pandemic; however, more than one-third did not. The most commonly used SupTech tools were for data collection and data analysis.

SupTech tools enabled authorities to effectively carry out their duties in protecting consumers. This emphasises the growing role of SupTech tools in helping authorities fulfil their mandates.

The use of such tools presented three main challenges:

- certain tools were not designed for remote supervision;
- difficulties adapting to meet new requirements and reporting deadlines; and
- granting access to internal systems to conduct remote inspections proved complicated.

In general, authorities benefited from efficiency gains realized through SupTech, improving how they supervise market conduct and helping them to keep up with the financial sector's digital transformation.

6. Looking ahead to the future of market conduct supervision

6.1. The future of market conduct supervision

Most respondents anticipated that in the post-COVID-19 environment, market conduct supervision would likely undergo further transformation, reflecting the growing digitalisation of the financial sector that is evident in the marketing and sales of banking products through digital channels and the use of data and machine learning for consumer profiling.

They envision market conduct supervision as more proactive and preventive, which may be achieved through comprehensive, data-driven, active market monitoring. Authorities will need to continuously evaluate their supervisory scope—and decide whether to expand it through new legal and regulatory frameworks—due to new products, new market players and other developments.

Authorities could continue to supervise regulated entities through remote means into the future, which brings new challenges both to supervisory authorities and financial firms.

All respondents acknowledged the important role of SupTech tools in market-conduct supervision and agreed that the value of such tools would remain steady or increase in the future.

Four respondents pointed out that the pandemic had accelerated digitalisation in the financial sector and that SupTech tools had much room to improve and streamline market conduct supervisory processes to increase their effectiveness and efficiency.

While views varied, in general respondents saw SupTech as a way for authorities to adapt to the digital transformation of the financial sector and to use efficiency gains from technology to improve supervision. They identified two main uses of SupTech in market conduct supervision:

- collecting and processing data for a deeper understanding of regulated entities; and
- handling unstructured data and text analysis to enhance supervisory efficiency in areas such as complaints handling and monitoring institutions' conduct through non-traditional market information sources such as social media and web sites.

6.2. Looking ahead

The COVID-19 pandemic altered the way many regulated entities conduct their market activities, and how authorities conduct their supervisory activities. Particularly remarkable is the increase in the marketing and sale of banking products through digital channels and entities' use of big data and machine learning for consumer profiling. Many—but not all—authorities rely increasingly on SupTech to keep up with changes in market activities, and to render their own efforts more efficient.

During the pandemic, many governments gave their authorities new functions and duties. These include:

- overseeing and monitoring government measures, such as loan payment moratoriums, to respond to the pandemic's impact on financial consumers;

- mitigating the increased incidence of fraud in digital channels; and
- addressing the vulnerability of financial consumers.

These factors triggered or accelerated the enhancement of SupTech tools in their jurisdictions.

The pandemic may have been the time, and partly the reason why so many authorities made the leap into remote supervision and regulatory digitalisation. But both trends are likely to continue and possibly expand. Ongoing sharing and assessment of authorities' experiences in relation to SupTech tools and remote supervision will support improvement in the relevant technologies, processes and policies. In turn, these improvements can enhance efforts, improve efficiency and reliability and potentially expand authorities' abilities to conduct their work in protecting financial consumers.

Appendices

Appendix A: Questionnaire

Section 1. General questions on conduct supervision

1.1. Has the COVID-19 pandemic had any impact on the way conduct supervision is carried out by your authority?

Yes

No

1.1.1 If yes, please name the three most challenging examples of how the COVID-19 pandemic has influenced conduct supervision functions in your authority.

<p>1.</p> <p>2.</p> <p>3.</p>

1.2. Have some areas of conduct supervision become more important than they were before the COVID-19 pandemic (e.g., thematic areas or areas of intervention)?

Yes

No

1.2.1 If yes, please provide case studies or examples.

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1.3. Have any new areas of conduct supervision been created due to the COVID-19 pandemic?

Yes

No

1.3.1.1 If yes, please provide case studies or examples.

--

1.4. Has the shift in the importance of the areas of the conduct supervision and appearance of new areas (as mentioned in Questions 1.2 and 1.3) brought any challenges to your authority?

Yes

No

1.4.1 If yes, please provide case studies or examples.

1.5. Have SupTech tools contributed to the oversight of the new areas and/or the areas that gained more importance due to the COVID-19 pandemic?

Yes

No

1.5.1 If yes, please provide examples

1.6 Has COVID-19 been the trigger or the accelerant for the enhancement of SupTech tools in your jurisdiction? Please explain.

Section 2. Influence of remote work on internal processes of supervisors

2.1. Has your organisation introduced remote work (i.e., working from home) for supervision staff in response to the COVID-19 pandemic?

Yes

No

2.1.1. If yes, have any of the following conduct supervision functions been adapted as a result of the move to remote work?

Function	Adapted (If yes, please mark)
Advertising oversight	<input type="checkbox"/>
Information duties monitoring	<input type="checkbox"/>
Regulation	<input type="checkbox"/>
Off-site surveillance	<input type="checkbox"/>
Thematic reviews	<input type="checkbox"/>
Risk Assessments	<input type="checkbox"/>
Reporting	<input type="checkbox"/>
On-site Inspections	<input type="checkbox"/>
Authorisation/approval of licenses and contracts	<input type="checkbox"/>
Complaints handling	<input type="checkbox"/>
Coordination and Requirements from other institutions	<input type="checkbox"/>
Enforcement and sanctioning practices	<input type="checkbox"/>
Other	<input type="checkbox"/>

2.1.2 Please specify and provide further details for any functions ticked above.

Advertising oversight	
Information duties monitoring	
Regulation	
Off-site surveillance	
Thematic reviews	
Risk Assessments	
Reporting	
On-site Inspections	
Authorisation/approval of licenses and contracts	
Complaints handling	
Coordination and Requirements from other institutions	
Enforcement and sanctioning practices	
Other	

2.2. When restrictions related to Covid-19 are over, is it expected that any processes will continue as remote work indefinitely?

Yes

No

2.2.1 If yes, please indicate the reasons and provide further details.

--

2.3 For each of the market conduct supervision functions listed below, please select how successfully your authority adapted to the new environment caused by the COVID-19 pandemic.

Function	Successful adaptation without any interruption of the function	Successful adaptation with an interruption of the function	The performance of this function was not adapted
Advertising oversight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information monitoring duties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regulation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Off-site surveillance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thematic reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Risk Assessments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reporting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
On-site Inspections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Authorisation/approval of licenses and contracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complaints handling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coordination and Requirements from other institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enforcement and sanctioning practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2.3.1 Please provide case studies illustrating the adaptation.

--

2.3.2 In cases where functions were “temporarily interrupted”, please specify the following:

- 1) What was the reason for interruption?
- 2) How long was the period of interruption?

3) How was the function resumed?

Advertising oversight	
Information duties monitoring	
Regulation	
Off-site surveillance	
Thematic reviews	
Risk assessments	
Reporting	
On-site Inspections	
Authorisation/approval of licenses and contracts	
Complaints handling	
Coordination and Requirements from other institutions	
Enforcement and sanctioning practices	
Other	

2.4 Are there data and/or studies in your jurisdiction to assess the adaptation of supervisory functions in response to the COVID-19 pandemic?

Yes

No

2.4.1 If you answered “Yes” please provide more information

--

2.5 Is your authority considering to further adapt any of the following supervisory functions in the short/medium/long term taking into account the use of remote work?

Function	Considering further adjustment
Advertising oversight	<input type="checkbox"/>
Information duties monitoring	<input type="checkbox"/>
Regulation	<input type="checkbox"/>
Off-site surveillance	<input type="checkbox"/>
Thematic reviews	<input type="checkbox"/>
Risk Assessments	<input type="checkbox"/>
Reporting	<input type="checkbox"/>
On-site Inspections	<input type="checkbox"/>

Authorisation/approval of licenses and contracts	<input type="checkbox"/>
Complaints handling	<input type="checkbox"/>
Coordination and Requirements from other institutions	<input type="checkbox"/>
Enforcement and sanctioning practices	<input type="checkbox"/>
Other	<input type="checkbox"/>

2.5.1 Please provide a brief explanation of any of the functions ticked above.

Advertising oversight	
Information duties monitoring	
Regulation	
Off-site surveillance	
Thematic reviews	
Risk Assessments	
Reporting	
On-site Inspections	
Authorisation/approval of licenses and contracts	
Complaints handling	
Coordination and Requirements from other institutions	
Enforcement and sanctioning practices	
Other	

2.6 Did your authority experience any challenges/weaknesses or advantages due to the remote work environment?

Challenges / weaknesses (e.g., onsite visits interrupted)

Advantages

Section 3. Use of SupTech tools in the new environment caused by the COVID-19 pandemic

3.1 Did your authority use any SupTech tools to perform its functions in the new environment caused by the COVID-19 pandemic?

- Yes
- No

3.1.1 If yes, which of the following SupTech tools has your authority used and did they prove effective?

SupTech tool	Used (if yes, please mark)	Degree of effectiveness (0 not effective, 5 very effective)
Structured data collection (e-reporting): tools to fill in the data	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Structured data collection (e-reporting): tools to exchange in the data	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Unstructured data collection (web-scraping /social media monitoring)	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Structured data analysis (NLP Text Mining)	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Unstructured data analysis (NLP Topic Modelling)	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Workflow SupTech tools	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Risk profile / early warnings	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Other	<input type="checkbox"/>	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5

3.1.2 For any tools checked above, please provide a brief description of the tool and an explanation of the degree of effectiveness.

Structured data collection (e-reporting): tools to fill in the data	
Structured data collection (e-reporting): tools to exchange in the data	
Unstructured data collection (web-scraping /social media monitoring)	
Structured data analysis (NLP Text Mining)	
Unstructured data analysis (NLP Topic Modelling)	
Workflow SupTech tools	
Risk profile / early warnings	
Other	

3.2 Did your authority face the need to develop new SupTech tools due to the remote work during the lockdown?

- Yes
- No

3.2.1 If yes, please provide case studies (type of tool, stage of development, etc.).

3.3 In general, not limited to remote work only, did your authority rethink its SupTech strategy and its use of SupTech tools due to the changes brought about by COVID-19?

- Yes
- No

3.3.1 If yes, please provide further details.

3.4 To what extent has the use of SupTech improved the supervisory process of your authority?

- Significantly improved
- Moderately improved
- Not improved
- Not applicable

3.4.1 Please explain your answer above.

3.5 To what extent do financial services providers face obstacles (e.g. in fulfilling data requirements) related to the implementation of SupTech in your jurisdiction?

- It is extremely challenging
- It is moderately challenging
- It is not challenging
- Not applicable

3.5.1 Please provide further details, including why financial services providers find the implementation of SupTech challenging.

3.6 Has the COVID-19 pandemic given rise to closer coordination among oversight authorities in your jurisdiction regarding the implementation of SupTech?

- Yes
- No, because closer coordination was not needed
- No, but closer coordination is needed
- Not applicable

3.6.1 If Yes, please specify your reason and provide further details.

3.7 In your authority's vision, in what way could SupTech tools be used to supervise qualitative criteria, such as fair treatment and sales practices for consumers in the context of COVID-19?

3.8 What is your authority's vision of the future of market conduct supervision within the context of the post-COVID-19 environment, including (but not limited to) the role of SupTech in it?

Appendix B: List of responding authorities

Jurisdiction	Responding authority
Australia	Australian Securities and Investments Commission
Brazil	Central Bank of Brazil
Canada	Financial Consumer Agency of Canada (FCAC)
France	Autorité de Contrôle Prudentiel et de Résolution
Germany	BaFin – Federal Financial Supervisory Authority
Indonesia	Bank Indonesia
Indonesia	Otoritas Jasa Keuangan (OJK)
Ireland	Central Bank of Ireland
Italy	Bank of Italy
Japan	Japan Financial Services Agency (JFSA)
Mozambique	Banco de Moçambique
New Zealand	Financial Markets Authority
Peru	Superintendency of Banking, Insurance and Private Pension Fund Administrators (SBS)
Portugal	Banco de Portugal (Central Bank of Portugal)
Québec (Canada)	Autorité des marchés financiers
Republic of Mauritius	Bank of Mauritius (Bank)
Russian Federation	Bank of Russia (Participation in FinCoNet suspended until further notice)
Spain	Bank of Spain
United Kingdom	Financial Conduct Authority



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