

Using digital technologies to strengthen shareholder participation



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Using digital technologies to strengthen shareholder participation

The right for shareholders to vote and participate in corporate decisions is one of the fundamental building blocks of a well-functioning corporate governance framework. Digital technologies offer important opportunities to strengthen corporate governance by facilitating greater shareholder participation. This Going Digital Toolkit note takes stock of recent developments and lessons learned from efforts to allow shareholders to participate in corporate decision making via virtual meetings, including in the context of the Covid-19 pandemic. The note also highlights the use of distributed ledger technology (DLT) and its potential to address the main challenges raised by the current corporate voting processes, in particular by facilitating the identification of shareholders by issuers and end-to-end confirmation of their votes. Despite these benefits, however, challenges remain that might discourage or slow down the pace of DLT adoption.

The right for shareholders to vote and participate in corporate decisions is one of the fundamental building blocks of a well-functioning corporate governance framework. As such, it is important that barriers or impediments to participating in shareholder voting are minimised and opportunities for inclusion are seized.

The *G20/OECD Principles of Corporate Governance*, which serve as the global standard to guide corporate governance policies and practices, recommend in Principle II.C that “shareholders should have the opportunity to participate effectively and vote in general shareholder meetings.” Principle II.C.2 specifies further that “processes and procedures for general shareholder meetings should allow for equitable treatment of all shareholders, [and] company procedures should not make it unduly difficult or expensive to cast votes” (OECD, 2015^[2]).

Digital technologies can help achieve these goals by addressing some of the challenges raised by intermediated securities holding systems on the shareholder voting process. This Going Digital Toolkit note considers the implications of digital transformation for shareholder voting processes, in particular how digital technology can be leveraged to enhance participation in general shareholder meetings.

Corporate ownership and shareholder voting

Research shows that most listed companies have controlling shareholders or blockholders, and that few decisions at annual shareholder meetings are closely contested (Isaksson and Celik, 2013^[3]; OECD, 2011^[4]; De La Cruz, Medina and Tang, 2019^[5]). While concentrated ownership may leave little doubt as to the expected outcome of shareholder votes, which may reduce the incentive for institutional investors and other minority and smaller shareholders to vote, nevertheless the votes that are cast serve an important purpose.

Voting provides a means for shareholders to express their support or their concerns with respect to the direction of the company, and to influence the company’s governance and management even in cases where the votes may not be sufficient to obtain a majority. While different types of institutional investors have different types of business models, and not all will find it cost effective to exercise their voting rights, many consider voting and participating actively in the governance of the companies they invest in as an important part of their investment and engagement strategies (Isaksson and Celik, 2013^[3]; De La Cruz, Medina and Tang, 2019^[5]).

Institutional investors play a pivotal role in today’s corporate landscape, accounting for the largest category of shareholders among the world’s listed companies. This role has been increasing, as individual investors have predominantly come to participate in the stock market through intermediary

investors such as pension funds, or via pooled investment vehicles such as mutual funds. By the end of 2019, institutional investors held nearly 45% of the global market capitalisation, dominating the ownership of listed companies in the United States (US) and the United Kingdom (UK), while also serving as the largest category of investor in many European markets, Japan and many other advanced economies (OECD, 2020^[6]).

This high concentration of institutional investors in global markets leads to large institutional ownership stakes in many foreign markets, where they usually serve as significant minority shareholders. Although most listed companies in the world have controlling shareholders or blockholders, institutional investors generally retain significant holdings, and their votes as minority shareholders can provide an important signal to the market as to whether there is widespread support for the strategic direction and management of the companies in which they invest (OECD, 2011^[4]).

The growing role of institutional investors in global markets has also contributed to a longer and more complex investment chain between the individual household and the listed company (OECD, 2020^[6]). This includes an increased reliance on advisory services, index providers and frequent outsourcing of ownership and asset management functions sometimes to multiple layers of actors. These phenomena can sometimes make it difficult to identify and allocate the responsibility for assuming the ownership functions – including the exercise of the shareholder’s right to vote – in the best interest of the ultimate beneficiary. This is particularly the case since active and informed ownership requires significant resources that asset managers and other profit-maximising institutions may be reluctant to incur.

In this context, the voting decisions of large institutional investors yield important impacts on market-wide corporate governance standards (Rock and Kahan, 2019^[7]). Recognising the widespread presence of institutional investors, regulatory initiatives to either mandate or encourage institutional investors to exercise their voice are common. Such initiatives include requirements or stewardship code recommendations for institutional investors to disclose their voting policies or voting decisions (OECD, 2019^[8]).

Challenges related to the shareholder voting process

Along with the significant focus on shareholder stewardship, there remains scope for further attention to improving the efficiency of proxy voting processes involving intermediated holding systems. Indeed, proxy voting can be an important mechanism for facilitating shareholder voting, which may help to explain relatively high turnout in the UK and US, where proxy voting has become the principal way in which shareholders exercise their voting rights (Isaksson and Celik, 2013^[3]). However, several high-profile cases involving the

malfunctioning of proxy voting systems have exposed problems related to opacity, unreliability and in some cases inaccuracies in vote confirmation and voting outcomes. Sometimes, it is impossible for shareholders to receive end-to-end confirmation that their votes were cast as they intended.¹

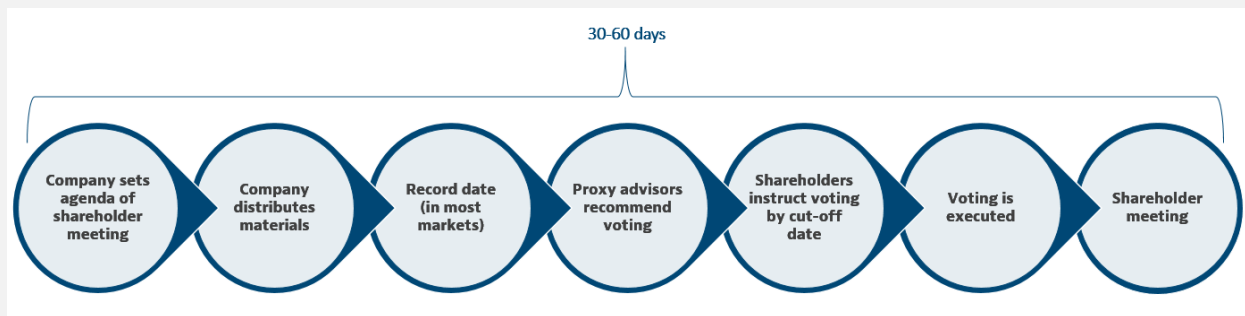
Overall, the corporate proxy voting process varies between jurisdictions and is often complex and characterised by multiple layers of intermediation (Box 1). The growth and internationalisation of financial markets have resulted in growing amounts of paperwork, which has in turn resulted in the development of policies that are both costly and impede the efficient functioning of the proxy voting process. In particular, the structure and size of fees charged for the distribution of proxy materials has been reported as one of the most persistent concerns by issuers to authorities (SEC, 2010_[9]).

¹ This includes instances of proxy votes wrongly counted (Bloomberg, 2017_[51]; Financial Times, 2008_[54]; Financial Times, 2020_[53]) and of shares wrongly voted (Bloomberg, 2016_[50]).

Box 1. Overview of the shareholder voting process and chain

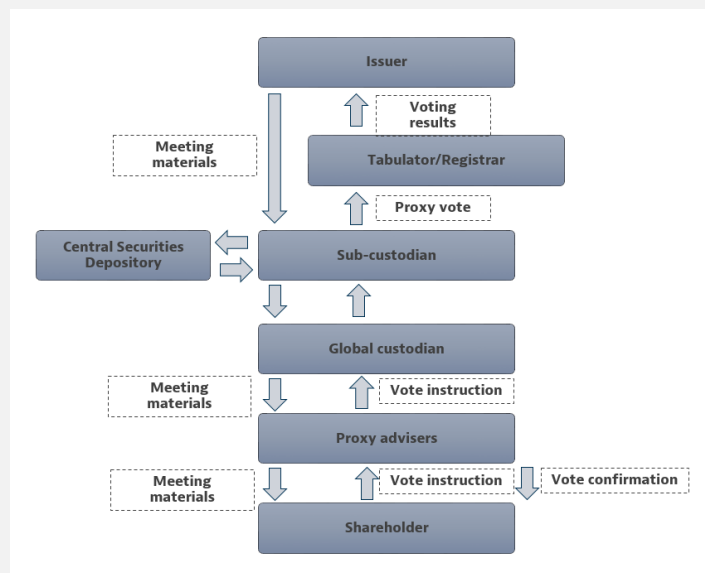
While cross-country variations exist with regards to specific requirements regulating the shareholder voting process, it usually includes the following steps: 1) the company sets the annual shareholder meeting's agenda; 2) the custodian confirms the shareholders' identity and the number of eligible shares for voting (*record date*); 3) companies send meeting materials to shareholders (either before or after the record date); 4) shareholders procuring proxy advisory services receive voting recommendations; 5) shareholders instruct the custodian on how to vote (*cut-off date*); 6) voting occurs at the shareholder meeting; and 7) shareholders receive vote confirmation (Figure 1). The timeline between a company setting the agenda for the shareholder meeting and the occurrence of the meeting generally ranges from 30 to 60 days, with some exceptions.

Figure 1: Shareholder voting process overview



Current voting processes thus involve a chain of parties with separate responsibilities, which usually operate their own independent workflows and record keeping systems (Figure 2).

Figure 2. Voting chain overview



Source: Authors, adapted from (Norges Bank Investment Management, 2020_[10]).

These inefficiencies are documented by a recent survey conducted by Norges Bank Investment Management across 66 markets (2020^[10]). The study confirms the existence of variations in the frameworks underpinning the exercise of shareholders' voting rights, along with significant differences in the way shareholder meetings and voting processes are organised across markets – especially with regards to the timeline for preparing and casting votes, the voting chain and vote confirmations. In particular, the study finds that many markets still rely on manual voting processes,² with end-to-end electronic voting systems and vote confirmations currently in place in only a few markets.

The complexities stemming from the lack of uniform frameworks are exacerbated by the existence of different share ownership characteristics underpinning different systems of intermediated holding structures.³ This entails that in many systems, investors are not considered the legal owners of the securities, creating dependencies on their intermediaries to exercise their rights. For instance, in the UK, intermediaries in the Central Securities Depository (CSD) are considered the legal owners of the securities and are treated as shareholders under section 112(2) of the UK Companies Act 2006 – meaning that beneficial owners depend on their intermediaries to pass their shareholder rights. Likewise, under Delaware Law in the US, registered holders are considered shareholders – meaning that beneficial owners depend on their intermediaries to obtain the proxy to vote their shares (Lafarre and Van der Elst, 2020^[11]; UNIDROIT, 2017^[12]).

In addition, in some countries, such as Germany and the Netherlands, securities are pooled in omnibus accounts belonging collectively to beneficial owners, rendering the identification of a particular beneficial owner's holdings impossible. This system stands in contrast with systems in most European jurisdictions where the investor's holding can be identified in an intermediary's account. In France, Spain, Denmark, Sweden and Finland, for instance, intermediaries do not have any interest in the securities and the beneficial owner has legal, individual ownership over the securities located in the investor's securities account. Of note, investors that wish to hold shares anonymously can do so through a nominee (UNIDROIT, 2017^[12]; Lafarre and Van der Elst, 2020^[11]). As securities are traded cross-border, differences

² To some extent, the use of standardised ISO 15022 format SWIFT messaging for the communication between the global custodians, sub-custodians and the voting service providers provides efficiencies and audit trails in parts of the voting chain (Norges Bank Investment Management, 2020^[10]).

³ While at present there is no international uniform legal approach for intermediated securities holding systems, two broad categories can be identified: 1) "direct" holding systems, in which intermediaries only serve as bookkeepers for investors, and 2) "indirect" holding systems, in which intermediaries have an interest in investors' securities (UNIDROIT, 2017^[12]).

between intermediated securities systems and their respective treatment of ownership may raise challenges related to their compatibility and complexity.

The challenges associated with proxy voting systems have garnered the attention of regulators in the European Union (EU) and the US for at least the last decade, with some progress made and ongoing efforts to address existing information problems inherent to cross-border intermediated chains. In the EU, as the first Shareholder Rights Directive of 2007 (i.e. SRD I) failed to solve these issues, the revised Directive of 2017 (i.e. SRD II) which came into force in early September 2020, aims to improve the identification of shareholders, the transmission of information and the exercise of shareholder rights through the intermediated system. In particular, Article 3c(2) mandates that an electronic confirmation of receipt of the votes be sent to the person casting the vote electronically (European Union, 2017^[13]). Meanwhile, in the US, the Securities and Exchange Commission held a “Roundtable on the Proxy Process” in 2018 to follow up on challenges identified in their 2010 concept release on the US proxy system (SEC, 2018^[14]).

Opportunities of virtual general shareholder meetings and remote voting for enhancing participation

As an essential feature of corporate governance frameworks, the general shareholder meeting should provide transparency, accountability and integrity to company governance and decision-making. Overall, the shareholder meeting should provide all shareholders with an opportunity to question the board, directly engage with management, hear the views of other shareholders, and seek further information prior to voting. Although exercising a right to vote is essential to uphold good governance, and decision-making may be considered the core function of the shareholder meeting, the meeting is not simply about voting. It is also about gaining an understanding of board decision-making in relation to company strategy, the culture of the board, and in some cases hearing the views and perspectives of others attending the meeting. It also stands as an opportunity for shareholders to observe how the board interacts and responds to questioning.

To ensure that shareholders have the opportunity to participate effectively and vote in general shareholder meetings, Principle II.C of the *G20/OECD Principles of Corporate Governance* states that shareholders “should be furnished with sufficient and timely information concerning the date, location and agenda of general meetings, as well as full and timely information regarding the issues to be decided at the meeting. [In addition,] processes and procedures for general shareholder meetings should allow for equitable treatment of all shareholders, [and] company procedures should not make it unduly difficult or expensive to cast votes.” Further, “shareholders should have the opportunity to ask

questions to the board, ... to place items on the agenda of general meetings, and to propose resolutions” (OECD, 2015^[2]).

While the right to participate in general shareholder meetings is a fundamental shareholder right, it can be hindered by attempts by management and controlling investors to discourage non-controlling or foreign investors from trying to influence the direction of the company. Other potential impediments include prohibiting proxy voting, requiring personal attendance at general shareholder meetings to vote, holding the meeting in a remote location, allowing voting by show of hands only, and sending the meeting materials too close to the cut-off date for voting, thus not granting investors with sufficient time for reflection and consultation⁴ (OECD, 2015^[2]).

Against this backdrop, many jurisdictions have revised their corporate statutes and proxy solicitation rules to allow for electronic notices to shareholders, as well as to permit e-proxies. This process appears to have been accelerated by the COVID-19 pandemic and the need to allow companies to meet and vote virtually during this period (see below).

However, well before the pandemic, there has been a movement among many jurisdictions to encourage the use of digital technologies to enhance the efficiency of communications to shareholders, e-voting and remote participation in annual general shareholder meetings. For instance, in the US, the SEC revised its proxy solicitation rules in 2007 to allow companies to provide proxy material to shareholders via their websites instead of mailing paper copies (SEC, 2010^[15]). While in 2010, this generated a 55% reduction in paperwork and savings of USD 445 million, the 2020 proxy season generated a 81% paperwork reduction, resulting in estimated savings of USD 1.8 billion on printing and postage costs (Broadridge, 2020^[16]).

Authorities have also introduced remote voting systems in recent years, in an effort to reduce participation costs and thus increase voting rates. For instance, Israel introduced a remote voting system in 2015, which is mandatory for companies traded on the Tel-Aviv Stock Exchange, allowing securities holders to vote via the Internet or using their mobile phones. By automatically confirming ownership, the system is designed to ease securities holders’ access to vote, as it does not require them to obtain or submit any proof of ownership

⁴ According to a recent Norges Bank study (2020^[10]), many companies operate under a framework that allows for publication of meeting materials less than 14 days prior to the cut-off date for voting. In Germany and India in particular, documentation may be published 5 days or less before the cut-off date, which limits shareholders’ time to duly analyse the materials before the voting deadline.

issued by the Tel Aviv Stock Exchange. Evidence suggests that the non-beneficial-owner voting rates increased by 3.5% between 2012 and 2018.⁵

Likewise, Brazil introduced a remote voting card in 2016, with the aim of addressing shortcomings identified in some provisions of the Brazilian Corporate Law, especially with regards to the timeline and requirements for preparing and casting votes. As such, the remote voting card seeks to facilitate voting and engagement for non-resident shareholders in particular. While remote voting practices have significantly grown since the remote voting card was introduced⁶, evidence also suggests that minority shareholders are increasingly using remote voting⁷, and that the remote voting card is mostly used by foreign investors⁸. As such, this initiative stands in line with Principle II.C.6 of the *G20/OECD Principles of Corporate Governance*, which states that impediments to-cross border voting should be eliminated, in particular by allowing voting by foreign investors through electronic means in a non-discriminatory way (OECD, 2015^[2]).

Many jurisdictions have also amended their statutes over the years to allow for either hybrid or virtual-only meetings⁹, although variations exist with regard to the degree to which jurisdictions allow for virtual meetings, as well as to the procedures required for a company to host such meetings – in particular, whether it is left to the sole discretion of the board, or whether it must be allowed by the company’s governing documents. As many jurisdictions issued stay-at-home orders in the midst of the 2020 general shareholder meeting season, in turn forcing companies to issue corporate travel restrictions, companies have been forced to turn to virtual channels for hosting their general shareholder meetings. As such, the outbreak of the COVID-19 pandemic provided authorities with an opportunity to clarify or advance their regulatory frameworks with regards to allowing virtual meetings. In some cases, however, uncertainty remains as to whether these regulatory changes will become permanent.

⁵ Uncertainty remains as to whether the remote voting system alone can explain the observed increase, as other explanatory variables may come into play, such as the requirement for institutional investors to vote in meetings combined with the fact that institutional investors’ holding rates have grown over this period.

⁶ With 24 000 remote votes received by the CSD in 2017 (when the RVC was first mandatory for a limited number of companies) regarding both general and extraordinary meetings (including for 220 meetings in that year), to over 79 000 votes received in 2020 (including for 757 meetings held over January–October 2020).

⁷ From 22.7% in 2017 (with 33.3% of votes cast in person and 44% of abstention), to 28% in 2019 (with 21% of votes cast in person and 51% of abstention).

⁸ In 2019, foreign investors accounted for 98% of total users of the remote voting card.

⁹ While a virtual meeting entails that the meeting occurs exclusively online, a hybrid meeting is an in-person meeting that also permits shareholders to participate remotely.

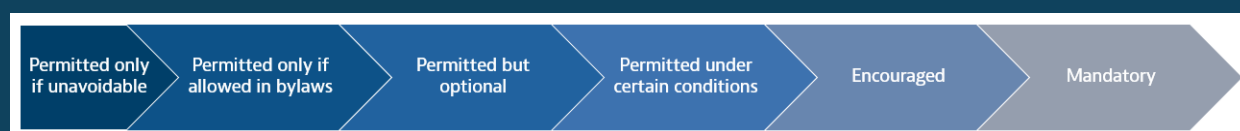
The COVID-19 pandemic accelerated regulatory adaptation to accommodate virtual shareholder meetings

Many jurisdictions have adjusted their corporate governance frameworks with respect to the execution of shareholder meetings by electronic means in response to the COVID-19 outbreak. Overall, one of the most common responses was to extend the deadline for companies to call the annual shareholder meeting, which normally takes place in the first or second quarter for companies that have their financial years ending on 31 December. For instance, deadline extensions were adopted in Australia, Austria, Indonesia, Italy, Malaysia, the Netherlands, Portugal, the Russian Federation, Singapore, Spain and the UK (OECD, 2020^[17]).

Based on an analysis of measures adopted in 37 jurisdictions, a gradation of adjustments of corporate governance frameworks with respect to allowing the execution of virtual general shareholder meetings is observed – ranging from “permitted only if unavoidable”, to “permitted under certain conditions”, to “encouraged”, to “mandatory” (Figure 3). While it is rare for authorities to provide that virtual meetings be permitted only if unavoidable (India) or that they be mandatorily held online (Lithuania), a slightly higher number of authorities have *encouraged* companies to conduct meetings online (Portugal, the Russian Federation, and Korea).

Many authorities have temporarily allowed all companies to hold shareholder meetings through remote participation, even in cases where there is a legal provision stating that the bylaws should have authorised it (Austria, Argentina, the Czech Republic, Italy, Peru, Portugal, Spain and the UK). Some authorities have also explicitly stated that the decision to conduct meetings online as opposed to requesting physical attendance was at the discretion of the company (Belgium). In addition, in Colombia, the crisis provided an opportunity to amend the Commercial Code, which previously required that all shareholders be present, thus removing a legal barrier to the conduct of remote meetings.

Figure 3. Gradation of COVID-related adjustments of corporate governance frameworks to allow virtual general shareholders’ meetings



Note: Data include corporate governance adjustments in 37 jurisdictions.

Source: Authors, based on an analysis of data available in (OECD, 2020^[17]).

Many authorities have authorised the execution of general shareholder meetings online under certain conditions in order to ensure optimal participation and treatment of all shareholders during virtual meetings. For

instance, Poland has provided for certain technical requirements underpinning the execution of virtual meetings, including the obligation for the company to provide two-way real-time communication channels, live transmission from the meeting, and vote confirmation to shareholders if requested. In Turkey, during the COVID crisis period, the general assembly and board of directors' meetings of listed companies can be held electronically via the "Electronic General Assembly Meeting System" and the "Electronic Board of Directors' System" provided by the Central Depository of Turkey (MKK).

Likewise, the crisis has also provided an opportunity for jurisdictions to advance or clarify their regulatory frameworks for remote participation in shareholder meetings. For example, Chile and Latvia have recently regulated remote participation and the voting process in shareholder meetings, including requirements for the certification of the identity of investors and for the secrecy of their votes. Germany and the Netherlands clarified some requirements for shareholder meetings that take place exclusively through remote means, such as that shareholders should be able to watch or listen to the meeting online and pose questions to corporate officers. Moreover, although Israel, Japan, and Korea have not enacted new rules with respect to general shareholder meetings, they have clarified public authorities' understanding of the legal framework's flexibility to allow for the postponement of the shareholders meetings and the organisation of shareholder meetings exclusively through electronic means (OECD, 2020^[17]).

Practices underpinning effective virtual general shareholder meetings

The shareholder meeting season most often receives attention in cases of significant votes against management resolutions on remuneration or board membership, or in cases of high-profile campaigns relating to environmental, social and corporate governance (ESG) issues impacting stakeholders. However, in 2020, the purpose of the shareholder meeting itself, the importance of shareholder engagement and the role of technology came to the fore. As companies had to adapt to difficult circumstances, the different approaches that they took garnered both support and criticism from investors and other stakeholders (UK Financial Reporting Council, 2020^[18]). As business models and long-term strategy come under increasing pressure, ensuring the effectiveness of companies' engagement with shareholders is important.

Recognising that one size does not fit all and that companies should consider the most effective channel for ensuring optimal engagement in line with their size and shareholder base, well-organised and well-executed virtual meetings hold potential to enable increased participation while reducing costs borne by companies over time. However, virtual meetings have sparked mixed reactions across countries. For instance, in the US, large institutional shareholders, activist

groups and funds have publicly voiced their opposition to the elimination of in-person meetings giving way to virtual-only meeting formats, with some investors declaring that they may oppose directors elected during virtual-only meetings, while others have expressed concerns directly to companies (Nili and Wischmeier Schaner, 2020^[19]). Likewise, observations from the conduct of fully virtual meetings during the 2020 general shareholder meeting season in Malaysia reveal that physical attendance stands as the preferred mode of participation in a meeting amongst the more senior shareholders (SC Malaysia, 2020^[20]).

Overall, there is evidence of considerable shareholder concerns that virtual meetings may lead to disenfranchisement by impeding their ability to engage directly with company directors, in particular through lack of face-to-face accountability, which can become an even more acute issue during audio-only meetings (Fontenot, 2018^[21]; Chia, 2020^[22]). This concern is particularly relevant as according to Broadridge (2020^[23]), in 2019, out of all virtual-only meetings conducted in the US using their platform, 97% used audio, while only 3% of meeting were conducted with video. Other concerns expressed on the shortcomings of the virtual meeting format pertain to the lack of shareholder-to-shareholder interaction, and the lack of interpersonal interactions in cases of contested meetings (Council of Institutional Investors, 2020^[24]; Fairfax, 2010^[25]).

In particular, the most common concerns revolve around the management of meetings and the way questions are processed. As virtual formats grant management complete control over interactions, shareholders have expressed concerns around management potentially manipulating questions – either by selecting, disregarding or rephrasing them (Nili and Wischmeier Schaner, 2020^[19]). As such, rules of conduct around the process for submitting and answering questions are important for fostering trust. In particular, if technology allows companies to review and select members' questions submitted in advance, the selection process about the nature of questions asked and not answered should be transparent, and records of comments, questions and responses should be kept to enable this (ASIC, 2020^[26]).

Given the pros and cons of virtual meetings, their implementation should be underpinned by careful practical considerations in order to enable shareholders to participate in meetings effectively. Overall, virtual meetings should seek to replicate, to the extent possible, opportunities available during in-person meetings in virtual environments. This entails: 1) ensuring uninterrupted participation; 2) genuine and effective interaction between members and the board; 3) opportunities to ask questions live; 4) an option to cast live votes; 5) a balanced and representative process of selecting questions submitted in advance; and 6) transparency around the number and nature of questions asked and not answered. In terms of voting, some authorities have

recommended that it be done by poll rather than by show of hands, and that shareholders have the ability to hear from the board before voting on resolutions, although the option of submitting votes in advance should also be provided (ASIC, 2020^[26]; UK Financial Reporting Council, 2020^[18]).

Regarding the use of technology, authorities have recommended that clear, concise and effective explanations on how to use the technology be given prior to the meeting. In addition, technical problems should be anticipated by assessing technologies in advance and ensuring that they can keep up with the expected volume of meeting attendees. Back-up plans should also be put in place – with details communicated to participants prior to the event to overcome potential technical issues (UK Financial Reporting Council, 2020^[18]; ASIC, 2020^[26]).

Overall, although uncertainty remains as to whether virtual meetings will persist and around the structure of 2021 shareholder meetings, experience so far points to practices that are likely conducive to effective virtual meetings. In 2018, the Best Practices Committee for Shareowner Participation in Virtual Annual Meetings, a US-based private sector group, released a series of recommendations with regards to holding hybrid and virtual meetings (Box 2). While these guidelines will likely be updated to account for the 2020 experience, they provide useful considerations for companies (PwC, 2020^[27]). By following these practices, companies might be able to use virtual meetings as a venue to re-engage shareholders both quantitatively and qualitatively, improve the quality of discourse, and enhance transparency and participation more broadly.

Box 2. Best practices for hybrid and virtual shareholder meetings

- Consider shareholder reaction to the type of meeting selected (e.g., in-person, virtual-only, hybrid) before the proxy statement is finalised.
- Consider the items that will be voted on at the annual meeting, and how a virtual-only meeting will support those discussions.
- Ensure that all shareholders have equal access to meeting, including with regard to presenting proposals and discussing concerns.
- Ensure that shareholders can access board members virtually — by seeing and/or hearing them.
- Ensure the company's technology can keep up with the expected volume of meeting attendees and ensure that technical support is available for remote participants. Solicit feedback after the meeting to find areas for improvement.
- Create formal rules of conduct to govern shareholder meetings — whether parties are attending in person or virtually. These rules would include procedures for transparency — for example, how the company will queue questions received virtually versus in person.
- Establish guidelines around the process for questions. For example, create timelines and limits for questions/comments and establish when questions may be out of order. The guidelines could also include that questions received online during the meeting will be posted, with answers, on the company's website after the meeting.
- After the meeting has concluded, archive the video for future viewing.

Source: (The Best Practices Committee for Shareowner Participation in Virtual Annual Meetings, 2018^[28]).

Potential application of DLT and smart contracts

While shareholders should be entitled to partake in general shareholder meetings and cast their votes, shareholders rely on a chain of intermediaries for the reception of proxies to vote their shares, and for the verification and confirmation of votes (Box 1). Likewise, issuers also rely on intermediaries to identify shareholders. Given the cross-border nature of many holdings, this intermediated system can yield significant inefficiencies in the voting process.

In particular, evidence suggests that the current securities ownership and voting structure does not fully account for the intricacies of the modern financial system, including margin lending and high frequency trading – which can create voting manipulations and errors, such as over and empty voting

(Nord, 2019^[29]; Yermack, 2017^[30]). Evidence also suggests that the proxy mechanism is expensive for shareholders. In order to address these shortcomings related to suboptimal transparency, verification and identification in the voting process, DLT has been suggested as a means to “modernise shareholder voting and provide a more efficient platform for stockholders to exercise their franchise”¹⁰ (Council of Institutional Investors, 2016^[31]). While much of the literature focuses on blockchain as a particular application of DLT¹¹, this note uses the more general term “DLT”, except when otherwise specified in particular cited references.

In contrast with centralised ledgers, distributed ledgers enable the recording of transactions between parties in a verifiable and immutable way – whereby information is either stored on a public ledger (“unpermissioned”), or a private one (“permissioned”). Unpermissioned ledgers are accessible by anyone using the appropriate client software, whereas permissioned ledgers require permissioned access by a central authority. While the former allows any party participating in the distributed network to serve as a node and to engage in transactions on the ledger, the latter pre-selects participants on the ledger based on requirements and a permissioner’s approval (Lafarre and Van der Elst, 2020^[11]; Iansiti and Lakhani, 2017^[32]).

As a core characteristic of distributed ledgers and in contrast with classical ledgers, previous transactions are not overwritten as new transactions are recorded on the ledger. Further, as the ledger is replicated and automatically updated in identical decentralised databases, it could be managed by shareholders who would be able to verify their transactions on the ledger. As such, blockchain could “empower voters to [record, manage, count and check votes] themselves, by allowing them to hold a copy of the voting record” (European Parliament Think Tank, 2016^[32]). In addition, the design of DLT systems could enable shareholders to be identified by the digital identity of their wallet. Overall, by ensuring immutability, and through characteristics that may contribute to better transparency and security, DLT holds the potential to enhance trust between unknown parties (Lafarre and van der Elst, 2018^[34]).

In theory, shareholder votes could be recorded on either a permissioned or unpermissioned distributed ledger that could be managed directly by the corporation or by shareholders themselves (Lafarre and van der Elst, 2017^[35]).

¹⁰ While a number of measures or technologies could be considered to address these inefficiencies, this paper does not attempt to assess them on a comparative basis, and focuses on the potential application of distributed ledger technology in particular because of the considerable attention and significant number of pilot projects recently devoted to considering its potential to enhance shareholder voting processes.

¹¹ As a subset of DLT, blockchain is a ledger that is composed of files called “blocks” (each containing a number of transactions) that are sequentially chained. As blocks are chained together, modifying one block requires altering all previous blocks as well.

However, permissioned ledgers have been suggested by several actors as the format better suited for consideration relating to the current proxy voting system, as permissioned ledgers offer greater control over the distributed network while still offering transparency within the network. In particular, permissioned ledgers could allow regulators to receive permissions to view the ledger's data in order to review votes and ensure compliance with legal requirements (Nord, 2019^[29]). It should be noted however that this technology is still evolving, and its potential application may present a range of challenges and risks.

That said, DLT can be used for various applications, including for smart contracts. A smart contract can be considered as capable of entering, executing and enforcing an agreement automatically in reference to pre-defined conditions, using distributed ledger technology. With terms and conditions recorded on the ledger and becoming immutable, this prevents one party from renegotiating the contract at the expense of the other party. As such, smart contracts can be used to determine share ownership and voting rights, among other purposes (Lafarre and van der Elst, 2018^[34]).

Potential benefits

DLT and smart contracts could offer the potential to reduce agency costs for both shareholders and companies, by optimising and modernising both the general shareholder meeting and the voting process – in particular, by processing votes at a faster pace, more accurately and more securely. As such, it has been posited in some academic papers that blockchain technology may have the potential to improve transparency in the voting process, enhance shareholder engagement and protect investor privacy (Van der Elst and Lafarre, 2019^[36]; Yermack, 2017^[30]; Panisi, Buckley and Arner, 2019^[37]; Lafarre and Van der Elst, 2018^[38]). The adoption of DLT or other technologies to facilitate the exercise of shareholder rights also seems to be encouraged by the Implementing Regulation of the Shareholder Rights Directive II¹² (European Commission, 2018^[39]).

As a proof of concept, in a private ledger managed by the board¹³ whereby access would only be granted to shareholders, smart contracting could allow for the private ledger to be structured so that all relevant information – including majority rules and access rights as provided by articles of association and legal requirements – are contained on the ledger. Further, eligible shareholders would be notified in real-time as a proposal is placed on the

¹² The Implementing Regulation states that “new technologies that could enhance transparency and trust [should be used to] facilitate the exercise of shareholders rights” (European Commission, 2018^[39]).

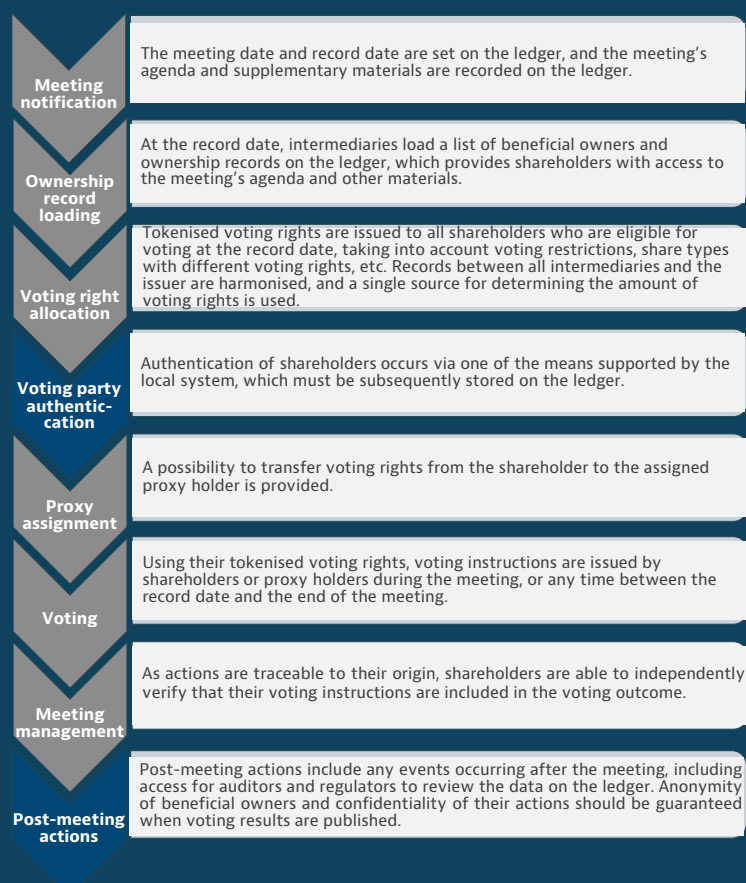
¹³ The ledger could also be administered by the CSD or another intermediary, or the stock exchange.

ledger, and would be able to exercise their voting rights during a short period. At the cut-off date, voting results would become instantly available, and majority requirements would be needed to be reached under a specific timeframe in order to render the decision binding and verifiable. While shareholders should be able to verify their own voting transactions, no shareholder should be able to infer the voting decisions taken by other shareholders – unless required by regulation which is the case for institutional investors in some jurisdictions (Lafarre and van der Elst, 2018^[34]).

In 2017, a Working Group on DLT comprised of a consortium of six CSDs¹⁴ published a report outlining the requirements for shareholder proxy voting on DLT, and proposing an eight-step process flow for shareholder voting on DLT (Figure 4). While the process starts with a notification of the meeting, including the provision of meeting materials in standardised format and setting the record date on the distributed ledger, the next step entails that notified intermediaries upload a list of beneficial owners (i.e. beneficiaries in the UK, securities entitlement holders in the US) to the ledger at the record date, who in turn gain access to the meeting materials and are attributed a certain amount of tokenised voting rights.

¹⁴ Including Argentina's Caja de Valores, Chile's Depósito Central de Valores, Nasdaq Nordic, the Russian Federation's National Settlement Depository, Switzerland's Six Securities Services, and South Africa's Strate.

Figure 4. Proposed eight-step process flow for shareholder voting on DLT



Notes: Colour code: Grey ▼ means the step is on the ledger; Blue ▼ means the step is not on the ledger.

Source: Authors, adapted from (CSD Working Group on DLT, 2017^[40]) and (Lafarre and van der Elst, 2018^[34]).

As shareholders need to identify themselves in order to be able to vote, the report suggests that the authentication process occurs outside the DLT environment in order to comply with privacy regulations, but recommends that the proof of authentication be stored on the ledger. As shareholders can appoint a proxy holder ahead of the voting process, both the shareholder and proxy holder are enabled to verify how their votes or voting instructions are cast, and that they are duly included in the vote count on the ledger. In addition, in the timeframe after the voting process is concluded, shareholders are able to independently verify the voting results – as well as all actions that established these voting results – in the identical decentralised database that they manage (CSD Working Group on DLT, 2017^[40]; Lafarre and van der Elst, 2018^[34]; Lafarre and Van der Elst, 2020^[111]).

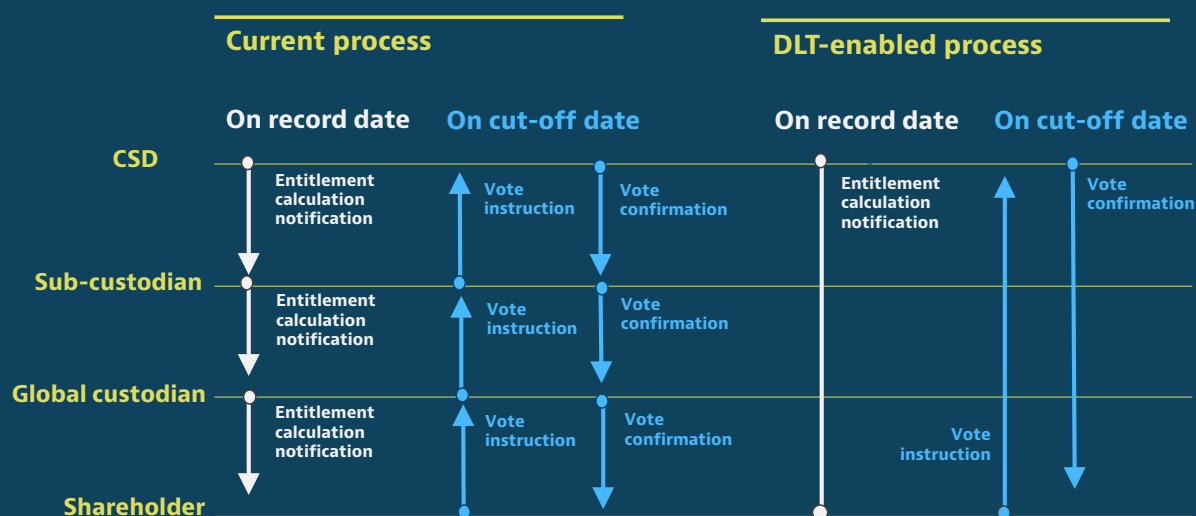
Overall, the main purported benefits of DLT from a corporate governance perspective may reside in its potential to enable information transmission in real time, as well as to allow direct communication between participants on the ledger. Depending upon the type of distributed network used, this may in turn enable problem-solving related to the identification of beneficial owners by issuers, as well as the ability of these beneficial owners to exercise their shareholder rights.

However, it is worth noting that in jurisdictions where the intermediaries are considered the legal owners of the securities, there may not be a requirement to identify or inform the ultimate beneficial owner. In addition, considering issues regarding the timeline for preparing and casting votes, certain distributed networks may be used to determine the optimal timing for the record date and notice period – i.e. closer to the cut-off date, thus offering the potential to improve shareholding participation (Lafarre and Van der Elst, 2020^[11]).

In particular, DLT-enabled voting processes can potentially enable end-to-end workflow and streamline vote processing along the holding chain with the assistance of smart contracts (Figure 5). By supporting the assurance of the rights and obligations defining the securities, smart contracts could enable the establishment of a 'data-driven' process, thus replacing the current 'document-driven' voting process.

To do so, technologies such as the general-purpose legal mark-up language (GLML), which allows legal documents to become machine-readable and thus facilitates the automation of capital markets, could be leveraged to generate automatic legal documentation from a set of constituent data (Finextra, 2019^[41]; IntellectEU/Digital Asset, 2020^[42]). Overall, by enabling the uploading of all ownership information to the distributed ledger, this DLT-enabled voting system allows for the possibility to remove the intermediaries from the voting process, depending on how the ownership information will become available in the ledger (Lafarre and Van der Elst, 2020^[11]). Of note, based on the current infrastructure, at least one intermediary that provides the updated ownership information is still needed.

Figure 5. Proof of concept of a DLT-enabled voting process



Source: Authors, adapted from (IntellectEU/Digital Asset, 2020^[42]).

In practice, several prototypes and test cases on the use of DLT for shareholder voting have reportedly been launched by stock exchanges and private sector institutions in recent years – such as by the Australian Securities Exchange, the Abu Dhabi Securities Exchange, KAS Bank of the Netherlands, and the US-based Broadridge Financial Solutions, to name a few. Public bodies are also engaged. In France, the government was recently empowered to introduce distributed ledger technology for securities trading, although it is worth noting that European CSD regulation prevents such technology from being used on securities admitted to a stock exchange (Van der Elst and Lafarre, 2019^[36]).

However, most of these publicly announced cases remain at the proof-of-concept stage since they were announced and have not yet crystallised to the implementation stage. Notably, the Australian Securities Exchange (ASX) is working to transform its CHES system (Clearing House Electronic Subregister System) to a DLT-based system, due to be concluded in 2023. In particular, ASX plans that the new system will provide the ability for electronic proxy voting for all relevant issuer meetings.¹⁵ As part of the requirement, the record date relative to the meeting date will be standardised so that the record date will be a fixed number of business days prior to the meeting date. The requirement also has potential to involve the extension of proxy voting to underlying beneficiaries, although this mechanism is dependent upon the implementation of the business requirements allowing for the recording of additional investor information and centralised data capture and storage (ASX, 2018^[43]).

¹⁵ It is worth noting that this functionality will not be available for users of CHES on the 'go-live' date of April 2023, but will be developed after further industry consultation post-April 2023.

Potential challenges

While certain applications of distributed ledger technology may have potential for improving the corporate voting process, there are still a number of questions which must be addressed to fully understand its potential and practical implementation, as with other measures or technologies that may be explored to address current shortcomings in voting processes. Some fundamental questions pertain to privacy issues, compliance with regulatory requirements, scalability, and investment and maintenance costs, among others.

Focusing on regulatory compliance, stakeholders from the private sector have suggested that there are challenges with adhering to existing regulations and national corporate governance codes when considering the implementation of distributed ledger technology for proxy voting. Stakeholders also report that to the extent that there are different standards and requirements existing in different jurisdictions, this raises further challenges for the implementation of DLT for proxy voting. Considering that regulatory requirements do exist, and could differ by jurisdiction, DLT adoption is likely to be slow and gradual.

Infrastructure issues may also arise with respect to DLT adoption for use in proxy voting. It remains unclear how distributed ledger technology will be implemented in proxy voting. There could be various design approaches, for example, regarding how beneficial ownership information is tracked and updated, or how the distributed network is governed. There appears to be varied design options that may present different regulatory and implementation-related challenges. Whichever design may be put forth, it is unclear how a specific implementation will fit within or replace existing infrastructures, hence also pointing to harmonisation issues.

Considerations regarding initial investment costs associated with implementing DLT for proxy voting are also important, especially if substantial up-front costs are required. As with any new technology, these costs could be borne disproportionately among proxy voting service providers and issuers of the securities. While some stakeholders report that the investment costs of DLT are relatively similar to those of more traditional technologies, others have suggested that such investment costs may come on top of existing costs, since at least for a transitional period it may be necessary to operate parallel systems. In addition, substantial operational costs may be expected with regards to any new technology that requires specific IT expertise. However, opportunities to upgrade systems to DLT may arise as an existing infrastructure reaches the end of its lifecycle.

Lack of adequate incentives might also explain the slow pace of DLT adoption across markets, since much of the technology needed to ensure a properly functioning corporate proxy voting infrastructure is already available and working in other areas, notably in dividend payments to beneficial owners. As

there may be significant development costs to a DLT-based proxy voting system, it is unclear whether the efforts to develop such a system will come to fruition. However, while certain stakeholders advocate for DLT solutions over other potential solutions, other stakeholders have reported that other solutions, such as application programming interfaces (APIs), are more widely used than distributed ledger technology and therefore would be simpler.

Concerns around compliance with data protection regulations and standards (i.e. the EU General Data Protection Regulation, also known as “GDPR”) also arise when contemplating DLT adoption for proxy voting. Depending upon the distributed network used, this technology offers transparency and immutability, which could create challenges in meeting GDPR standards around the ability to anonymise and erase personal data and around storage limitations. These challenges may be mitigated somewhat by the design of the system, including use of permissioned ledgers and the storage of personal data off-chain.

Furthermore, scalability and interoperability have also been identified as major barriers to DLT’s wider adoption. Some DLT applications, notably on public, permissionless systems, present scalability issues related to costs, energy consumption and storage capacity. In addition, the technology is still evolving, and a lack of common, interoperable standards may prevent or hinder transmission of information between and among different distributed networks.

Overall, better understanding of the incentives of individual actors, challenges for achieving interoperability, investment costs involved, and who bears the costs and benefits of differing regulatory approaches could help regulators in their consideration of requirements related to proxy voting and the potential for technological solutions – including the potential for DLT – to improve the functioning of such systems.

Annex. Selected initiatives of technology use in the corporate voting process

Remote voting systems

Brazil

Responsible entity: Brazilian Securities and Exchange Commission (CVM)

Description: The remote voting card (RVC) was introduced in 2016 with gradual implementation, and is mandatory for all public companies since January 2018. The rationale for its introduction was to address shortcomings identified in some provisions of the Brazilian Corporate Law, especially with regards to the timeline and requirements for preparing and casting votes. As such, the remote voting card seeks to facilitate voting and engagement for non-resident shareholders in particular.

In particular, under Instruction 561, remote voting may be exercised by a specific document, the remote voting card, which must be filed by listed firms prior to the shareholders' meeting date. The remote voting card may be sent by shareholders directly, either by mail or a designated electronic system, accompanied by documents that show their legal capacity. Remote voting may also be exercised through specific service providers – securities custodians and bookkeepers – which have the necessary means to verify the identity of the shareholders. Votes received by custodians are forwarded to a central depository, which consolidates and transmits them to the firm's share bookkeepers. These agents then perform a new round of consolidation, merging votes received from the central depository with the votes that it may have received directly. The votes are then forwarded to the firm, which assembles a voting map that is promptly made public.

In spite of the efforts to build upon existing systems and procedures, it was necessary to develop a system for transmission and aggregation of remotely cast votes between service providers and the central depository. Adaptation also required significant efforts from firms, which led to the rules entering into force later than originally planned. It is also worth mentioning that benefits have been experienced unevenly: most of the gains seem to come from firms whose shares are more widely distributed and with many foreign investors. In general, investor participation has increased and the exercise of certain rights that require coordination between shareholders to reach specified thresholds have also been facilitated.

Read more: <http://www.freitasleite.com.br/regras-da-cvm-sobre-voto-a-distancia-em-assembleias-de-companhias-abertas-abertas>.

Israel

Responsible entity: Israel Securities Authority (ISA)

Description: In June 2015, the ISA launched a remote voting system, which is designed to ease the securities holders' access to vote on the company's meetings, and allows them to vote electronically via the Internet. Since 2017, securities holders can also vote using their mobile phones. The system aims at encouraging shareholders, bondholders, owners of option warrants and participation units to exercise their voting rights at meetings and increase their involvement in the companies' decision-making process. In addition, companies traded on the Tel-Aviv Stock Exchange are generally obligated to use the system and allow their securities holders to vote electronically in every meeting. Since its launch in 2015, the system has been in use for online voting in more than 7 000 company meetings, and more than 400 000 accounts of securities holders have voted in these meetings using the system.

One of the main advantages of this channel is that securities owners are not required to obtain or submit any proof of ownership issued by the Tel-Aviv Stock Exchange members, because the system confirms ownership automatically. The system becomes increasingly relevant nowadays, due to the COVID-19 crisis and the measures adopted for its containment, such as social distancing.

A major challenge relates to the structuring of the legal framework of the system, which raised another challenge in the context of how to protect the data used in the system, and its separation from other data kept in the ISA. In particular, the establishment of the voting system and its operation is regulated by the Israeli Securities Law, which stipulates that there must be a strict structural separation between the activity of the system and any other activity of the ISA. As such, the system operates on a separate network, and the ISA's employees do not have any access to it. As a result, in some cases, data protection regulations prevents the ISA from assisting companies operating the system.

Read more: <https://www.isa.gov.il/sites/ISAEng/Pages/The-Internet-Voting.aspx>.

Adapting legal frameworks to support virtual general shareholder meetings

Austria

Responsible entity: Austrian Financial Market Authority

Description: The legal basis for holding shareholder meetings in Austria in times of the COVID-19 pandemic is the COVID-19-GesG. Shareholder meetings can be held without the physical presence of the participants. The COVID-19-GesG was amended by the 4th COVID-19 Act. The COVID-19 related measures include:

- The extension of the deadline for the general meeting of stock corporations: in 2020, the deadline to call the Annual General Meeting within the first eight months is extended to the first twelve months of the financial year.
- The admissibility of virtual meetings, even if they are not provided in the articles of the associations: the physical presence of shareholders is not necessary, as long as active participation of the shareholders is made possible by other means, e.g. shareholders are given the possibility to send questions or applications to the company electronically and a postal vote is possible. The COVID-19-GesV (Gesellschaftsrechtliche COVID-19-Verordnung) contains special provisions for holding a virtual general meeting of stock corporations, taking into account the typically larger group of participants in stock corporations.
- Publicly listed companies are given another simplified option for holding a general meeting: In case of public broadcast the exercise of voting rights and the submission of motions for resolutions can only take place via special proxies. These proxies are proposed by the company, but are independent of it. The proposal shall include at least four persons (at least two of them have to be lawyers or notaries). The costs of the proxies are taken by the company.

Read more:

[https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20011116#:~:text=\(1\)%20Die%20Durchf%C3%BChrung%20einer%20virtuellen,melden%20und%20an%20Abstimmungen%20teilzunehmen.](https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20011116#:~:text=(1)%20Die%20Durchf%C3%BChrung%20einer%20virtuellen,melden%20und%20an%20Abstimmungen%20teilzunehmen.)

Belgium

Responsible entity: Belgian Financial Services and Markets Authority

Description: In response to the COVID-19 outbreak, the Belgian federal government adopted inter alia the Royal Decree of 9 April 2020 No. 4, laying down various provisions relating to co-ownership, company and association law in the context of the fight against the COVID-19 pandemic (Arrêté royal du 9 avril 2020 n° 4 portant des dispositions diverses en matière de copropriété et de droit des sociétés et des associations dans le cadre de la lutte contre la pandémie COVID-19).

Under this Royal Decree, all general shareholders meetings that are convened or held between 1 March 2020 and (temporarily) 3 May 2020 (subsequently extended to 30 June 2020) can either: 1) be held remotely according to the modalities provided by the Royal Decree No. 4 (i.e. in writing), or 2) be held remotely by the use of electronic means, or 3) be adjourned. These measures are optional: the company may decide not to apply them (provided that all mandatory measures relating to COVID-19 are complied with). The appropriate measure is chosen by the management body, taking into account the interest of all stakeholders.

Read more:

http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2020040903&table_name=loi.

Germany

Responsible entity: German Federal Ministry of Justice and Consumer Protection and the Federal Office of Justice

Description: The board of directors of a stock corporation can hold a general meeting in 2020 without the physical presence of shareholders or their proxies. The shareholders have to make use of absentee voting or the company's proxy. The General Meeting must be broadcasted on the Internet. Shareholders must also be given the opportunity to ask questions electronically. The board of directors can provide that these questions must be submitted up to two days before the general meeting. The Management Board has to answer those questions it considers important in the interest of the other shareholders. The contestation of resolutions is very limited.

Read more:

https://www.bmju.de/SharedDocs/Gesetzgebungsverfahren/Dokumente/Bgbl_Corona-Pandemie_EN.html.

Italy

Responsible entity: Italian Companies and Exchange Commission (CONSOB)

Description: On 17 March 2020, the Italian Government adopted the Law-Decree No. 18/2020 (“Decreto Cura Italia”) providing for emergency measures, amongst which Article 106 regarding shareholder meetings to be held by Italian companies (whether listed or not) in compliance with the lockdown and isolation measures in place. In brief, Article 106 allows Italian companies to benefit from the following provisions, regardless of law or bylaws provisions, for the shareholder meetings to be held until the end of July 2020: 1) extended deadline to call the Annual General Meeting for all companies, i.e. at the latest 180 days (instead of 120 days) after the end of the financial year; 2) attendance to shareholder meetings and voting exclusively: by electronic tools (electronic/mail voting); 3) for companies listed on a regulated market, traded on MTFs or widely owned, cooperative banks and insurance, through a Special Representative (“Rappresentante Designato” under Art. 135-undecies of the Consolidated Law on Finance, Legislative Decree 58/98), who conveys all shareholders proxy votes (with binding instructions).

CONSOB is competent on monitoring the correct implementation of the new rules by listed issuers, primarily ensuring the completeness and fairness of information for shareholders’ meetings. As such, on 10 April 2020, Consob issued some guidelines (Comunicazione No. 3/2020) on some issues arisen in the application of Article 106 of Law-Decree No. 18, in brief: 1) recommending the adoption of the measures allowed by Article 106; 2) emphasising the confidentiality of votes cast either by electronic means or through proxy to the Special Representative; 3) highlighting the need of accurate and pre-emptive disclosure of resolutions of the shareholder meeting, if attendance and voting is possible only through the Special Representative, so that shareholders can actually cast their votes prior to the meeting; and 4) suggesting best ways to adapt the application of law provisions on the matter of shareholder meeting (e.g. right to raise questions, proxy solicitation) to the context of meetings held exclusively by proxy voting or electronic tools.

Read more: <https://www.lavoro.gov.it/documenti-e-norme/normative/Documents/2020/DECRETO-LEGGE-17-marzo-2020-n-18-Cura-Italia.pdf>;
https://www.consob.it/documents/46180/46181/c20100410_3.pdf/1a5d4a18-c1c8-4b6c-9a0b-3c91222595a2.

Latvia

Responsible entity: Latvian Financial and Capital Market Commission (FCMC)

Description: The Company Law was amended in early 2020 to allow shareholders to participate remotely at the general meeting. These provisions are applicable to private limited companies and public limited companies (including listed companies). There are three options of remote participation:

- Every shareholder is entitled to vote prior to the meeting (no need of such provision in the Articles of Association). The vote must be submitted in writing to the company at least one day before the general meeting. The shareholder is obliged to provide the company with the possibility to identify the particular shareholder;
- The management board may provide shareholders with the opportunity to participate and vote at the general meeting by using electronic means. In this case, the meeting is conducted as a face-to-face meeting, but shareholders are entitled the right to participate remotely (it is up to a shareholder to decide how he/she wishes to participate and vote at the meeting). The management board can provide this possibility by its own initiative, but must provide this option if a particular number of shareholders (20% of share capital) asks for that or if it is stipulated in the Articles of Association;
- A general e-meeting is allowed only in cases when it is stipulated in the Articles of Association (moreover, the amendments to the Articles of Association must be adopted unanimously). In case of a general e-meeting, all the shareholders are obliged to participate at the meeting by electronic means. However, every shareholder is still entitled the right to vote prior to the meeting.

Aforementioned rights of remote participation can be exercised also by proxies.

Read more: <https://likumi.lv/ta/en/en/id/5490-the-commercial-law>.

Malaysia

Responsible entity: Securities Commission Malaysia (SC Malaysia)

Description: On 18 April 2020, the SC issued a guidance note on the conduct of fully virtual and hybrid general meetings. In particular, the guidance includes:

- Having no more than 8 essential individuals physically present at a broadcast venue of a fully virtual general meeting. Shareholders participate in such meeting via audio and/or video capabilities.
- Companies shall only conduct fully virtual general meetings during a Movement Control Order (MCO)

- Companies can proceed to leverage technology to conduct its general meeting provided the company's constitution does not prohibit it from doing so or is silent on the manner general meetings should be conducted.

Read more:

<https://www.sc.com.my/api/documentms/download.ashx?id=c5fbbbcd-3ab0-40ce-a22b-e8bb1d1fe0a8>.

Portugal

Responsible entity: Portuguese Securities Market Commission

Description: On 20 March 2020, the CMVM (the Portuguese Securities Market Commission), AEM (the Securities Issuers Association) and IPCG (the Portuguese Corporate Governance Institute) issued a joint statement urging listed companies to resort to means of distance communication in order to hold the 2020 annual general shareholders' meetings. This shall be permitted even when the bylaws of such companies do not foresee that possibility, as long as shareholders are informed in advance of the relevant meeting. Listed companies are also encouraged, to the full extent possible, to resort to electronic means as ways to interact with shareholders in the context of the preparation of the general shareholders' meeting. Deadlines for annual meetings were postponed by decree law (Decree-Law 10-A/2020, of 13 March) until 30 June 2020.

Read more: <https://dre.pt/home/-/dre/130243053/details/maximized>

Distributed Ledger Technology

Australia

Responsible entity: Australian Securities Exchange (ASX)

Description: In 2017, ASX announced that it will replace its Clearing House Electronic Subregister System (CHES) with a DLT-based system. Following the completion of the user consultation on business requirements in November 2017, ASX has conducted an assessment of each of the requested business requirements to determine whether they will be included in the new system. Approximately 50 new business requirements have been identified, related to: account structures and information; pre-settlement; settlement; and corporate action processes.

In particular, ASX plans that the new system will provide the ability for electronic proxy voting for all relevant issuer meetings. This functionality will not be available for users of CHES on the go-live date of April 2023, but will be developed after further industry consultation post-April 2023. Overall, ASX will need to consider any changes to the legal and regulatory framework,

including changes to the Corporations Act and Regulations and its operating rule framework to support the new and enhanced functionality for Day 1 and post-Day 1, and the broader operation of the new system.

On 25 March 2020, ASX announced that it was undertaking a revision of the CHESSE replacement system to accommodate the impact of the COVID-19 pandemic, the functional changes requested by CHESSE users, and additional time for ASX and CHESSE users to complete development and readiness activities. On 30 June 2020, ASX released its consultation paper (ASX, 2020^[44]) on the CHESSE Replacement Revised Implementation Timetable. ASX released its response to consultation in October 2020, setting out the finalised milestones and project activities (ASX, 2020^[45]). The go-live for the CHESSE replacement system is confirmed for April 2023, which is a 24-month extension from the original go-live date, and includes an increased project scope, including increased capacity and scalability.

In addition, ASX will be required to provide to ASIC and the RBA a number of independent third-party assurances as evidence of its readiness to migrate to the new system. ASX must prove that the new system, at a minimum, meets the requirements which CHESSE meets today for system availability, resilience, recoverability, performance and security. ASX is also expected to achieve a significant uplift in intraday trade processing capacity and end of day processing performance in the new system (ASIC/RBA, 2020^[46]).

Read more: <https://www2.asx.com.au/markets/clearing-and-settlement-services/chess-replacement/stakeholder-engagement>.

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