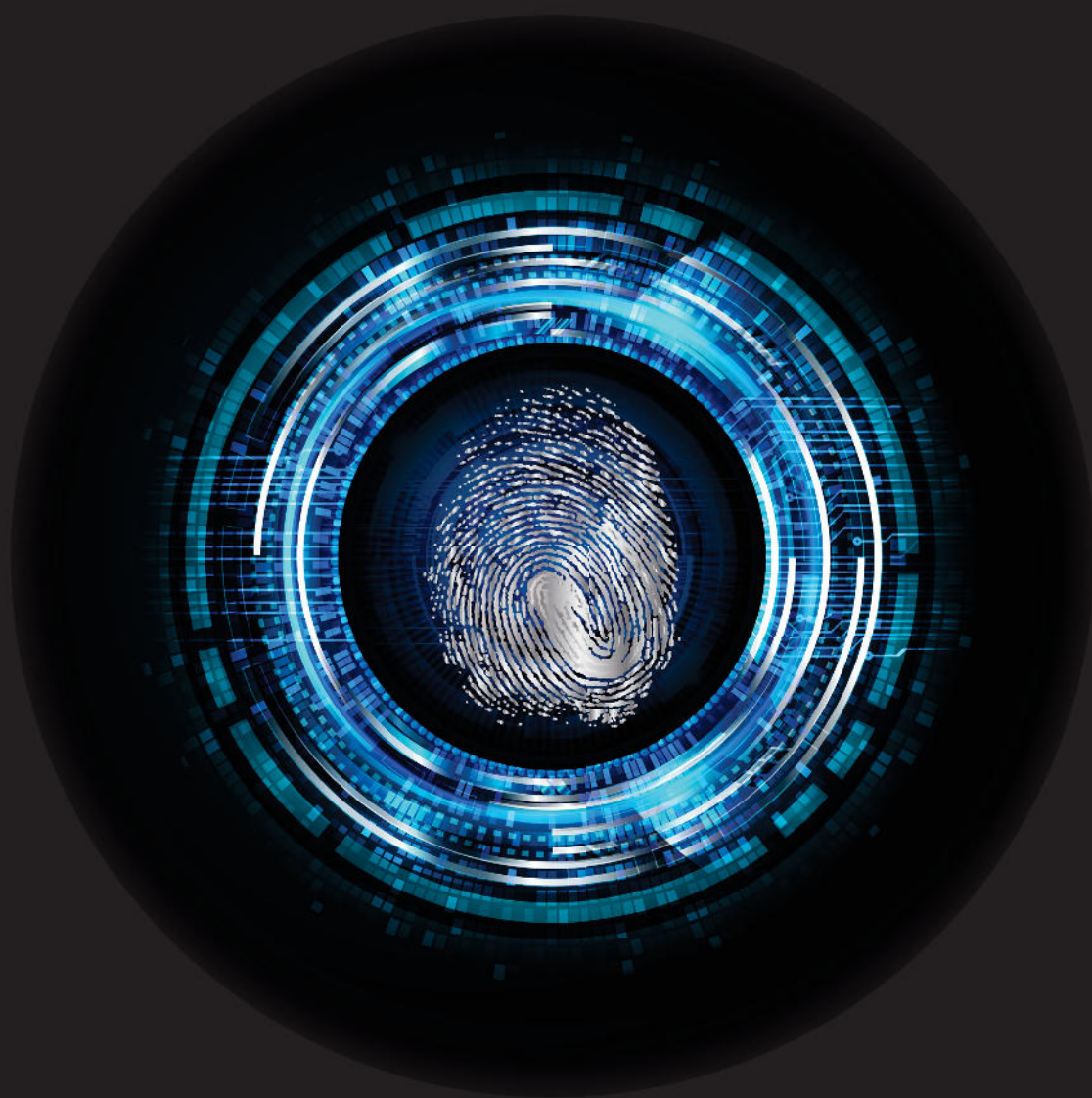


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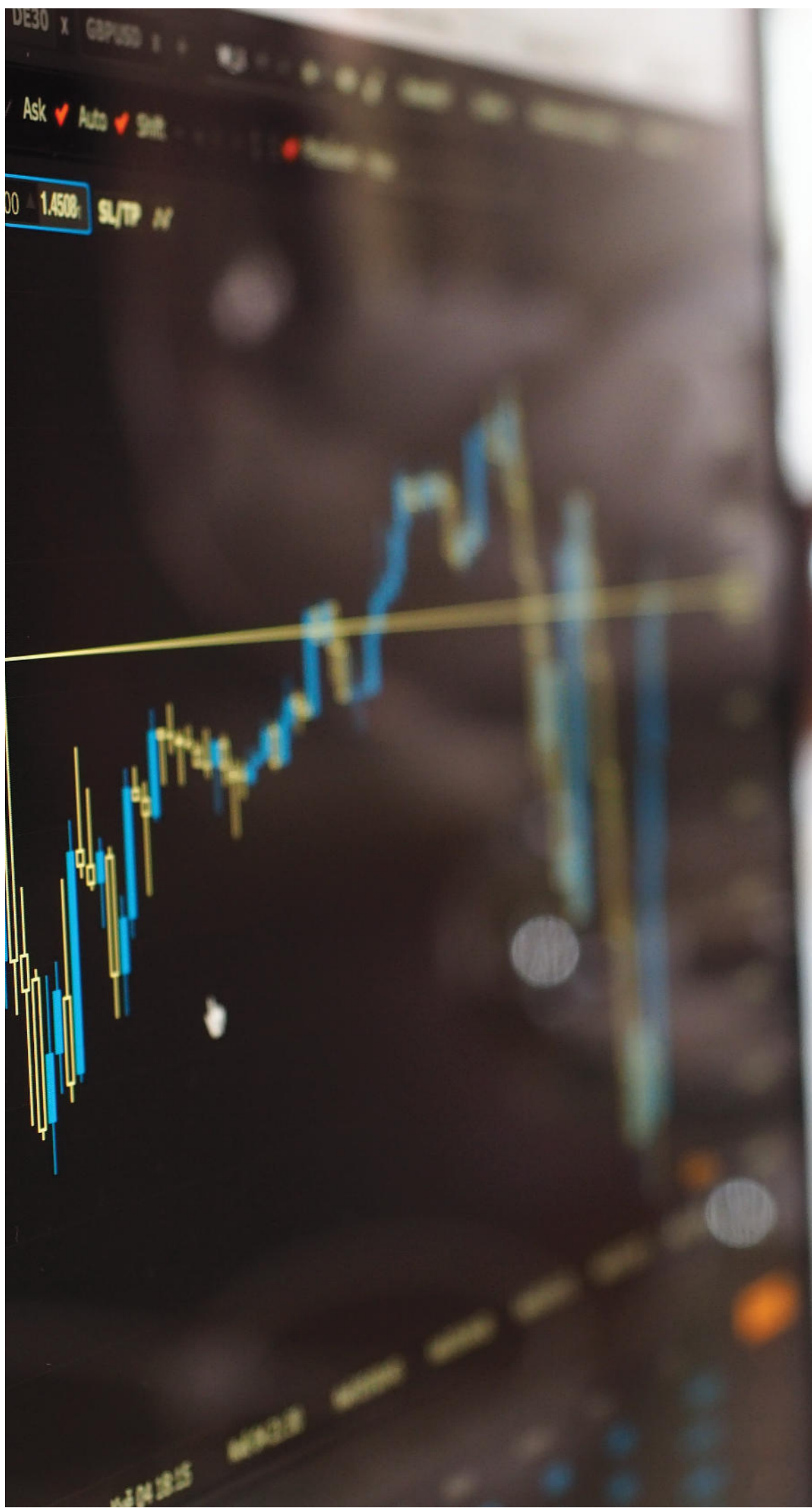
The future of post-trade
A glimpse into the future

center
for the long view

This is the age of
disruption.

Sebastian Thrun

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Scenario thinking

Scenarios offer a glimpse into the future and help to stress-test corporate strategy

In the last few decades, post-trade has stood in the shadow of the vibrant securities trading industry. But recent developments have made post-trade an exciting field of business. The post-trade landscape and its market participants have faced dramatic changes which will transform business models, processes, and networks. Predicting the effects of current disruptive technologies, FinTechs, regulations, initiatives, and economic development feels like the proverbial gaze into the crystal ball and opens the door for strategic positioning.

Thus the question that needs to be answered is: what will the European post-trade market look like in the year 2030?

Current market activities show that many traditional and also new market participants see the post-trade market as a promising growth market. Whatever the future will look like: all market actors are challenged to answer this complex question in order to prepare for the future.

The current driving forces come from different sources in political, technological and even sociological developments and will transform the post-trade landscape dramatically. In order to navigate through these changes and respond to opportunities and risks at an early stage, an understanding of possible future scenarios will be essential.

This will help to identify concrete implications and develop suitable strategic options or wind-tunnel existing strategy on the basis of robust needs for action.

Scenario design provides the basis for decision-making in the context of great uncertainty by analyzing and structuring drivers of critical uncertainties that could

affect the future. Scenarios are narratives of alternative futures that provide a sound basis for developing future-proof strategies for anybody with ties to talent-recruiting and management.

Together with industry experts we developed four scenarios to illustrate what the post-trade market might look in 2030.

In the **Real Time – The Fulfilled Dream** scenario, the post-trade market experiences reinvigoration driven by continued harmonization efforts in Europe and the acceptance of emerging technologies, making real time settlement possible and driving innovation.

The scenario **The Roaring 30s** sees a smaller, more agile post-trade market due to the break-up of old industry structures and the spread of technological innovation. However, the dream of a harmonized European market has failed to materialize, following increasing disintegrative tendencies across Europe.

In the scenario **Dancing to a Chinese Tune**, the spread of nationalistic movements results in the disintegration of the European Union. Innovation in post-trade services is limited to niche applications with far-reaching consequences for the established players.

In **Giants' Heaven**, standardization continues to increase within Europe, leading to a more integrated market. At the same time, pressure on incumbent players has stagnated and agility is limited to less-regulated and niche parts of the capital market value chain.

All of these scenarios demonstrate how the evolution of post-trade could play out. Let's explore each scenario in more detail to better understand the implications.

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Critical uncertainties

We identified key drivers that will shape the post-trade market



At the outset of our exercise, we developed a complete list of drivers that have the potential to affect the post-trade market in future. This was done with the help of expert interviews and AI-based natural language processing algorithms. The drivers identified were then clustered into social, technological, economic, environmental, and political factors and rated with regard to their degree of uncertainty and their impact on the post-trade market. The resulting list of prioritized drivers formed the basis of our scenario analysis, since it enabled the determination of the most critical uncertainties in the context of securities transfers.

According to our experts' ranking, the first critical uncertainty that will determine the future of the post-trade market is the development of the European Union. The market can either become more integrated in terms of decreasing market fragmentation and increasing efficiency of regulations, or collapse as both economic and political collaboration efforts in the EU fail.

The drivers underlying this critical uncertainty include the degree of market fragmentation in the EU, as well as the level of refugee flows into the European Union. Furthermore, the success of efforts to increase efficiency are captured by the development of TARGET2-Securities (T2S) and by the consistency of both securities and insolvency laws in the EU.

On the other hand, the future of the post-trade market is highly dependent on the level of agility in the post-trade sector. Technological progress and digitalization have led to the rise of new opportunities and risks that have the potential to disrupt the market. For example, some experts believe the use of distributed ledger technologies rather than centralized, server-based platforms have the

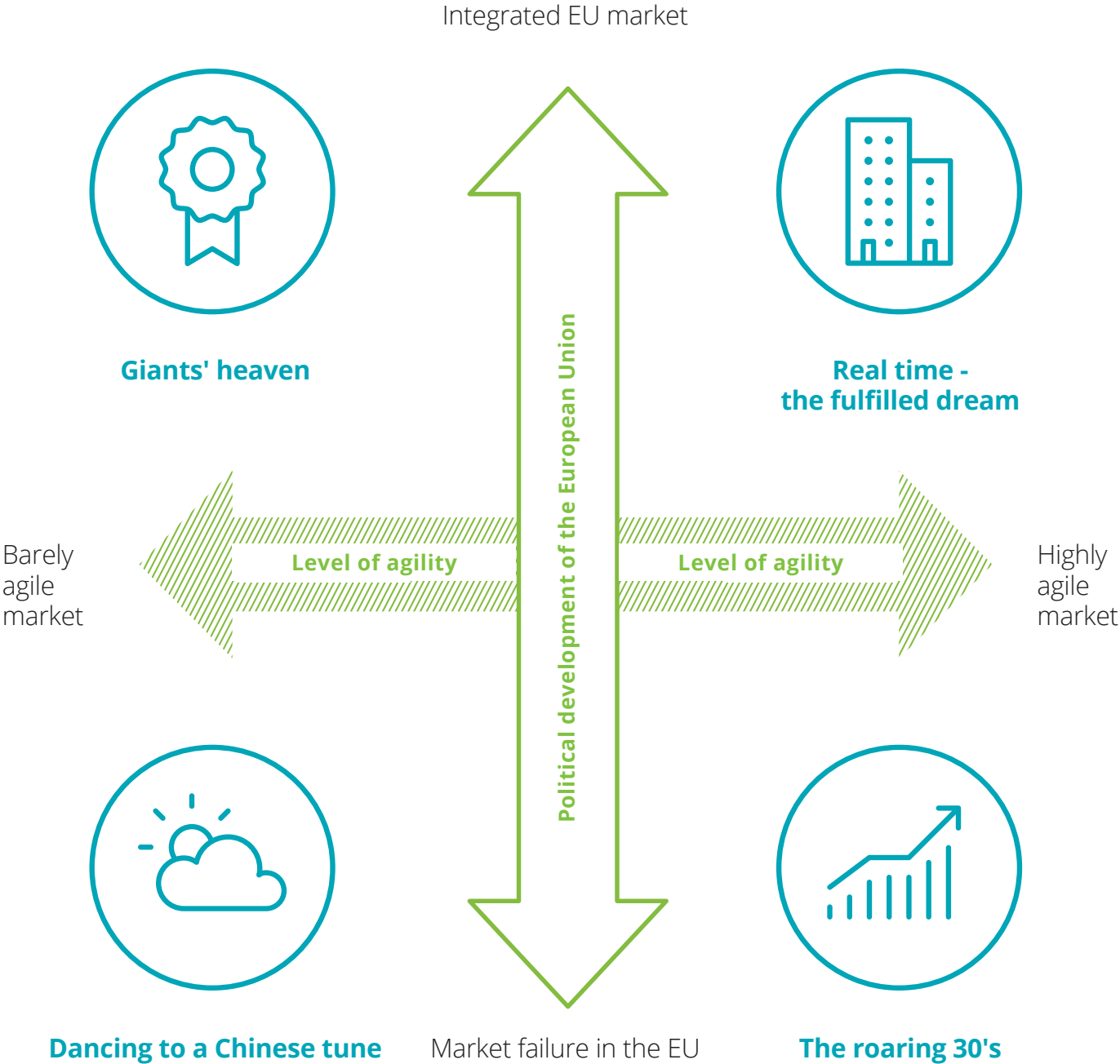
potential to reduce time, cost, and counterparty risks in clearing and settlement. Moreover, the pace of technological progress may not be uniformly distributed in future, as Asian markets might experience a breakthrough with decreasing regulations for foreign investors.

However, the market dynamics will ultimately be shaped by the prevalence of skepticism or distrust towards emerging technologies and trust in established systems that could hinder a more agile development of the post-trade market. The pronounced network effect in this market reinforces the importance of this effect. Similarly, regulations and investment in the digital infrastructure will shape the agility of the market in the future.

Thus our second critical uncertainty describes the level of agility in the post-trade sector that can either increase in view of conducive regulations and high adoption rates of innovative technologies, or decrease in terms of increasing hostility towards technology and failed implementation of novel approaches to securities transfers. The level of agility may also depend on the strength and quality of collaboration and alliances between service providers which aim to set an example and drive innovation in this sector.

The combination of the two critical uncertainties, the political development of the European Union and the level of agility of the post-trade market, results in four plausible but divergent visions of the future which are illustrated in figure 1.

Fig. 1 – Scenario matrix to describe the future of the post-trade market



Four possible scenarios for the future

The days of the post-trade market as we know it today may be numbered

Real time - the fulfilled dream

Integrated EU markets and a highly agile post-trade market

In this world, the European post-trade market has experienced an unexpected renaissance: not only is the European market highly integrated, but it also runs on a state-of-the-art infrastructure, and is now experiencing stable growth.

Unprecedented events such as Brexit and general political uncertainty have resulted in tumultuous times for many players in financial markets. As a result, scarcity of capital has put pressure on existing business models and led to a wave of consolidation in the finance industry. Moreover, innovative technologies have greatly challenged the capacities of European regulators. However, the European Union was able to collaborate more effectively than ever to the benefit of all.

Real-time clearing and settlement of securities trades has been achieved, enabled partly by the adoption of emerging technologies, such as distributed ledger technologies, and partly by the harmonization of existing regulations into one consistent European regulatory framework. Overall improved conditions in the post-trade market and easy access to capital are making it more attractive for outsiders. FinTech startups are gaining a foothold in the industry as a new engine of innovation, and are now co-existing with the remaining incumbent post-trade players that gave their portfolios a general overhaul and made the courageous, but necessary, investment to replace their legacy infrastructure.





The roaring 30's

Market failure in the EU and a highly agile post-trade market

Nationalistic measures and the increasing instability of the European Union with subsequent devaluation of the Euro, and a refocusing of innovative capacities have shaped European financial markets with far-reaching consequences. While many asset managers had difficulties managing the volatile market, hedge funds greatly profited from bets on the failure of the European Monetary Union.

Due to the instability of the traditional financial system, the majority of lending now takes place on peer-to-peer platforms, significantly decreasing the volume of the post-trade market. At the same time, a wave of consolidation has shaken up the industry landscape. While FinTech startups saw an opportunity in a turbulent market and are now setting the majority of industry standards, incumbent providers of post-trade services such as central securities

depositories in weaker economies are kept alive by government support.

All in all, the post-trade market has become smaller, but also more agile as the break-up of old industry structures and the spread of technological innovations permitted new approaches to securities transfers.



Dancing to a Chinese tune

Market failure in the EU and a barely agile post-trade market

A lot has changed since 2017. The spread of nationalistic movements resulted in the disintegration of the European Union, and innovation in post-trade services is now limited to cross-border sales, specialized FinTech startups, and regulations. Sovereign tasks that were once the stronghold of the post-trade industry have been nationalized, and national governments are in fierce competition for the dominant financial center. At the same time, European intellectual property such as T2S has become irrelevant and was thus sold to the Chinese. The European idea failed, and many industries are in decline.

Since European post-trade players are focusing on their respective domestic market and establishing quasi-monopolistic

structures, players in emerging markets are taking advantage of the opportunity and capturing large parts of the international post-trade market, especially for cross-border transactions.

The risk of marginalization for European providers of post-trade services is higher than ever – the days of plenty are numbered as the size of the industry declines, the risk of foreign acquisitions soars, and innovative capacities fail to materialize in the industry.

Giants' heaven

Integrated EU market and a barely agile post-trade market

Following the much-needed harmonization of regulation in the European Union, the environment for post-trade service providers has calmed down as well, resulting in stability, security, and the continued use of legacy systems. National central securities depositories (CSDs) are still in place, and incumbent players in financial markets were spared the much-feared disruptive consequences of further disintegration of the European financial market.

Thus, with decreasing pressure on post-trade service providers, innovative abilities have declined. Innovation is now in the hands of a few FinTech startups that operate at the technological frontline. However, as they lack critical mass, they focus on their respective niche market. The territory of established

post-trade providers remains untouched.

In the end, the feared clean-up of the market has not yet materialized and standardization continues to increase. Pressure on incumbent players is stagnating, and agility limited to other parts of the capital market value chain that are less regulated or more attractive for niche players.



Conclusions and outlook

The future of the post-trade market will have tremendous impact on the infrastructure of financial markets in Europe.

The long-silent post-trade market is currently being shaken by fundamental changes. Finding an answer to the question “What will the European post-trade market look like in 2030?” is a complex challenge. The future is inherently uncertain, however action needs to be taken at the right time. Using scenarios to depict possible future states and creating a compass to navigate through the four sceneries can serve as a starting point for the evaluation of strategic options and the development of a future-proof strategy. Post-trading efficiency and attractiveness are highly dependent on network effects. With the emergence of new technologies and market participants, there is a great deal of

uncertainty regarding the prevailing standard of the future. Today, many financial institutions are investing in numerous different initiatives and FinTechs at the same time, in order not to miss the next big thing.

A first result of our initiative is that the current uncertainties around technological developments, such as distributed ledger technologies, and the impact of innovative FinTechs on the agility of the market, may be little more than a temporary turbulence. If regulatory constraints assert their power over market conditions, the complexity of the regulatory framework may decrease the need for change deriving from new technologies.

The strict and complex regulatory requirements on each part of the securities processing value chain are already today obstacles for new technologies and FinTechs. Furthermore, the need for networks and inter-operability requirements are slowing down developments towards a more agile environment. Currently, excellence in regulatory compliance and the efficiency of the existing infrastructure are the most prominent levers of incumbent market participants. Nevertheless, many market participants are actively observing technological developments in view of pending regulatory decisions. A view on future scenarios that can emerge due to the



interaction of technological developments and changes in the regulatory framework facilitates strategic decision-making once uncertainty has decreased.

The second conclusion is the significant role of the European Union for the post-trade market. The current trend towards harmonization serves the needs of the whole market, however its effectiveness will fail to materialize if disintegrative dynamics become stronger. Therefore, driving harmonization should be part of the agenda of established market players. But as the success of the European project depends on many variables which to a large extent cannot be influenced,

building the ability to succeed in a potentially disintegrated market today may make the difference between winning and losing in the post-trade market of the future.

Finally, market participants continuously face the need to make investments as a result of new regulatory standards or technologies, but do so reluctantly in view of uncertain future developments. Scenarios can provide the necessary guidance, as decisions can be reflected and evaluated in different, yet plausible versions of the future. Thus, investments should be made according to the scenario market which participants believe will materialize in the future, and adapted as

new information on key driving forces becomes available. This approach fosters strategic decision-making and helps to adjust strategic direction and investment at an early stage. All in all, the scenarios demonstrate that fundamental change is imminent, and proactive efforts may be needed to shape the future in order not to be at the mercy of external forces. In summary, our scenarios share a common theme: foresight and strategic vision will be required to navigate changing business environments. Potential risks and opportunities of market participants must be analyzed separately in order to develop appropriate strategic options.



Making sense of 2030

Introduction to scenario design and methodology

This study on the future of the European post-trade market is based on the seven-step scenario design methodology of the Center for the Long View (CLV) which applies the guiding scientific principles of objectivity, reliability, and validity. This study is the outcome of a series of workshops involving industry representatives, industry experts from the global Deloitte network as well as experienced scenario practitioners from the CLV.

Our scenario design methodology starts with the formulation of a focal question in order to determine the project's scope and strategic direction. The focal question for this study was the following: what will the European securities processing and post-trade services sector look like in 2030?

As scenarios are a way of understanding the dynamics that shape the future, the second step of our methodological approach represents the identification of driving forces that have the potential to affect the outcome of the focal question. These drivers can be grouped into five categories, known as STEEP forces, consisting of social, technological, economic, environmental, and political factors.

In order to determine this study's long list of drivers, we primarily made use of interviews with selected Deloitte experts and also our AI-based research tool, CLV Deep View. Deep View uses proprietary natural language processing algorithms to read through millions of data sets with the aim of identifying

patterns between key words, phrases, people, companies, or institutions. This allows us to obtain a comprehensive understanding of highly complex issues and interrelationships as well as to identify global trends. It also helps to avoid the bias of traditional approaches that often have a built-in tendency based on the character, mood, or preferences of the scenarists.

In a third step, we prioritize and cluster the identified drivers into critical uncertainties. This is necessary as not all driving forces are uncertain. Some may be predictable and unlikely to vary significantly in any of the scenarios. Thus, critical uncertainties must fulfill two criteria: firstly, they must have a high impact on the outcome of the focal question, and secondly they must be highly uncertain or volatile. Initially, all uncertainties appear unique, however, by analyzing the comprehensiveness and correlation of each critical uncertainty we can establish the building blocks for our scenario framework.

The scenario framework is developed in the fourth step of our scenario design approach. The critical uncertainties determined serve as axes that are combined into a matrix, resulting in four highly divergent but plausible scenarios. In our study, the two critical uncertainties are reflected by the development of the European market and the level of agility in the post-trade market.

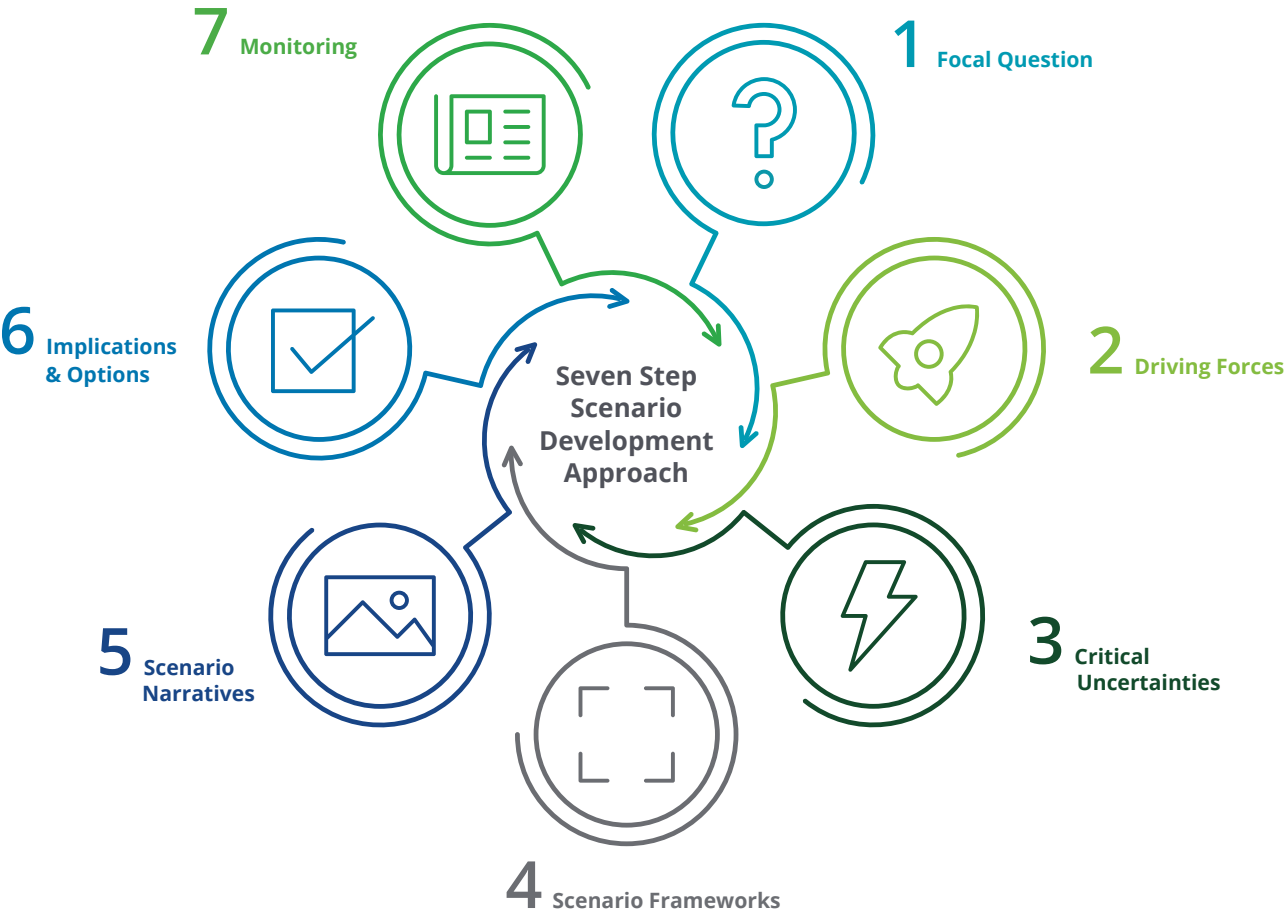
Having established the scenario matrix, we develop scenario narratives in a fifth step. Scenario narratives define the framework conditions and atmosphere of each scenario within the context of a story. By using the previously identified drivers to reverse-

engineer the milestones that would lead to each future, we can determine the key elements for each scenario.

Then, in a sixth step, we make use of these scenario narratives to derive resulting implications for the stakeholders involved. In our study, we analyzed the four scenarios with regard to their implications for different providers of securities processing and post-trade services.

In a seventh and final step, we define key indicators for each of the four scenarios to enable the monitoring of trend developments. The aim of this step is to observe which scenario is most likely to materialize.

Fig. 2 – Seven step scenario development approach



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Special thanks to Dr. Frank Becker and Maximiliane Brecht for their contribution.

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