

The Development of European Capital Markets Post-Brexit

Brexit will change European capital markets for years to come. Market participants should know the determinants of Brexit and their impact on post-Brexit market development when taking strategic decisions.



Management Summary

Brexit, happening either on the 29th of March 2019 (“no-Deal scenario”) or after a transition period will initiate the fragmentation of European capital markets from the form we know them to be now. At the same time, it will be the start of a transition towards a new EU27 capital market needed to finance European economic growth and development in times of political uncertainty and technological disruption.

The post-Brexit capital market development will be significantly shaped by the ongoing Brexit negotiations. Four of these are presented to shed light on this discussion’s determinants.

- First, a no-Deal Brexit is still a possible scenario: the Withdrawal Agreement has not yet been ratified by the UK and even if it does, it will not preserve full market access of banks and other capital market participants to the post-Brexit capital markets on both sides of the Channel.
- Second, Brexit does not come with a business case: Brexit will require UK-established banks currently servicing their EU27 clients via the European passport to establish a fully licensed subsidiary in the EU27 post-Brexit. In order to receive a license, the ECB will require these institutions to be substantially more than a mere empty shell, possessing a stand-alone balance sheet and an internal organisation for EU27 operations.
- Third, the ECB is no different than other regulators: ECB and the national regulators will keep a close eye on incoming banks, imposing their supervisory culture and maintaining the level-playing field of EU27 banks in order to deliver on the mandate of the European parliament. This approach, although different by culture is similar to that of the PRA/BoE.

- Fourth, Brexit is not just another regulatory project: No substantive changes will be made to the regulatory environment incoming banks face in the EU27, but relocating to the EU27 is rather going to impact their business model. The latter will have to be adapted to business conducted from another location, possibly by different people and with many new customers.

These determinants will shape the way capital markets and their participants are going to operate post-Brexit. As of now, EU27 capital markets as a whole depend on the UK’s highly developed market. Post-Brexit, mutual market access will be restricted, leading to a reduction of the performance and functioning of the remaining segregated markets, a restriction of UK firms regarding the services they want to provide to EU27 customers and the client’s ability to substitute required services by EU27 market participants. It is therefore a priority to foster development of the EU27 capital markets in order to provide the demanded range of products, liquidity and risk-absorbing capacity. Three success factors of this market development are presented.

- First, a sound and stable institutional environment is needed, which must be dynamically adapted to new developments. Capital markets are highly developed and thus fragile concepts that depend on framework stability to operate efficiently. Although market regulation containing supervisory discretion is required to ensure financial stability, laws and regulation should be stable and predictable with a focus on creating a uniform business environment across national borders to foster EU27-wide market

development. The EU possesses the necessary institutions to implement this across the member states and an already defined work programme, the Capital Market Union framework.

- Second, a steady stream of highly skilled personnel is needed to ensure that market participants are able to master product complexity and mitigate market risks. This includes focusing on the social standing of required educational resources as well as on competitive payment.
- Third, innovation and technological development, including data management and alignment of IT systems, have to be a focus of management up to C-Level and their supervisory boards. Capital market participants must take Brexit as an opportunity to improve their IT systems and data availability to the level required to operate in a complex and changing environment and maintain this ability over time in the face of disruptive technological change.

EU27 capital markets account for approximately half the volume relative to their GDP compared to the UK market. Growth in a magnitude that closes half of this gap would decisively improve financing the EU27 real economy in an environment of fading access to the UK capital market post-Brexit. This article presents the determinants of such post-Brexit capital market growth and aims at fostering it.

Approach

This article presents four theses on Brexit as well as a view on the development of European capital markets post-Brexit, i.e. the three to five+ year period after the 29th of March 2019 or the transition period respectively. This can be expected to be the date on which the United Kingdom will leave the European Union, although being aware of the possibility (as well as the necessity) of a transition period.

Brexit negotiations take place in an environment of legal and political uncertainty over an – compared to other supranational processes – extremely short period of time. At the same time, the design of the legal framework governing the post-Brexit capital markets will influence the business decisions taken by market participants for decades. Therefore, it is necessary to describe the genesis of this design and its impact until and around Brexit date in order to understand the projections derived from them in this article. In the next chapter of the article, four theses on Brexit are formulated which have a significant impact on how the trajectory to post-Brexit capital markets will begin. They will be of historical value once Brexit has happened. In the chapter thereafter, expectations on the future of capital markets post-Brexit, i.e. the development of the trajectory, which starts at Brexit, are presented.



Four Theses on Brexit

1 A no-Deal Brexit still is a possible scenario

Even with the provisional terms of the UK's exit from the European Union as defined in the Draft Withdrawal Agreement between the EU and the UK from 25th of November 2018, a hard Brexit scenario still has a probability, which should not be underestimated. Although Theresa May warned that 'Voting against a deal would take us all back to square one', there still seems to be a real possibility that the majority of MPs consider a 'no-Deal' to be better than what they see as a 'bad Deal'. Especially after delaying the vote on the Withdrawal Agreement and even with Theresa May's position being strengthened by the confidence vote on the 12th of December 2018, the UK government is still left with a Withdrawal Agreement, which is rejected by hard Brexiteers. There are only a few weeks left to put forward a new plan, which would then give it time between January and March to obtain approval in Parliament and agree on it with the EU. If no agreement is reached between the EU and the UK, the UK will leave without a deal on the 29th of March. A general election or a second referendum occurring before the 29th of March will almost surely put the Brexit discussions between the EU and the UK to a halt. Thus leading, without further action to a no-Deal Brexit or a unilateral withdrawal of Article 50.

The Draft Withdrawal Agreement itself covers numerous areas including but not limited to a transition period, set to end on the 31st of December 2020, during which the EU will treat the UK as if it were a Member State, with the exception of participation in the EU institutions and governance structures.

Moreover, it includes the terms of a legally operational backstop to ensure that there will be no hard border between the Republic of Ireland and Northern Ireland, keeping the whole of the UK in a Customs Union with the EU. What the Withdrawal Agreement does not mention explicitly, however, is the Financial Services sector.

Statements regarding the Financial Services sector can be found in the 'Outline of the political declaration setting out the framework for the future relationship between the European Union and the United Kingdom' (otherwise known as the Political Declaration). This publicly available document sets out the progress on the scope of the framework for the future relationship and states the following:

- "Commitments to preserving financial stability, market integrity, investor protection and fair competition, while respecting the Parties' regulatory and decision-making autonomy, and their ability to take equivalence decisions in their own interest. This is without prejudice to the Parties' ability to adopt or maintain any measure where necessary for prudential reasons.
- Commencement of equivalence assessments by both Parties as soon as possible after the United Kingdom's withdrawal from the Union, endeavouring to conclude these assessments before the end of June 2020.
- Close and structured cooperation on regulatory and supervisory matters, grounded in the economic partnership and based on the principles of regulatory autonomy, transparency and stability, recognising this is in the Parties' mutual interest."

This high degree of abstraction does not suggest any common goal of a preferential treatment of the Financial Services sector and does not imply an extension of future reciprocal market access beyond what is feasible under existing equivalence provisions, e.g. by adjusting existing regulation. It becomes clear that the financial services sector and the conservation of a coherent UK-EU27 capital market resulting from a long-term political relationship does not rank high in politicians' priorities with regard to Brexit negotiations.

Therefore, only old news can be repeated: the financial services sector and with it a large part of the UK and EU27 economy will have to prepare for a dramatically reduced market access post Brexit; any alternative outcome is highly speculative and not backed by available information. A no-Deal Brexit is still a very possible scenario.

2 Brexit does not come with a business case

With not a lot more than three months to go before the UK leaves the European Union and without banks retaining unfettered access to the financial market as the most probable outcome, banks' preparedness varies across the bench. While most banks have submitted their Brexit plans and licence applications to the ECB, some banks with limited activities in the EU have either not yet submitted their licence application or have not yet finalised their Brexit strategy. Furthermore, even for some of those market participants who have finalised their Brexit strategy, the political situation still feels too uncertain to take action and start executing their Brexit plans. Although this decision 'to wait' is understandable, since Brexit carries a strong downside potential, this course of action, on the other hand, bears risks which Boards should be aware of.

For banks, Brexit does not come with a business case: For years, the financial services industry's big players have built their global hubs in order to cut costs and work efficiently. To name just some examples, trades are booked or back-to-backed to locations where risks can be managed close to the market and thus at lower costs while back office processes are concentrated in wage-education-efficient countries and treasury functions manage the group's liquidity globally.

Brexit and with it the fragmentation of markets and of liquidity pools contradicts these attempts towards centralisation and hubs across the globe, leading to increasing costs. The loss of passporting rights as well as regulatory expectations to avoid empty shells in the EU27 force financial institutions to duplicate infrastructures, processes and employees regarding

their EU27 entity. Regulatory expectations will lead to trades being booked where they are conducted, i.e. leading to local booking models. EU27 entities have to be established with resources that enable them to manage their risks locally and allow them to access external market participants and FMIs on a standalone basis. Therefore, it becomes clear that Brexit does not come with a business case.

However complicated and costly it may be to implement strategic changes in an uncertain environment, lack in preparation could lead to even higher costs on an individual bank level and overall to chaos on Capital Markets. Not being able or operationally ready to conduct business with EU27 clients would leave banks vulnerable to the consequences of a no-Deal Brexit scenario. A loss of passporting rights in case of a no-Deal Brexit would immediately lead to UK financial institutions facing 27 different frameworks as national third country regimes come into force automatically. As a general rule, existing legacy contracts will remain valid and can be executed ('grandfathered') until maturity. Some lifecycle events, however, may lead to regulated activities, which would need to be authorised in each jurisdiction, i.e. would need authorisation under national regimes comparable to new contracts. Furthermore, rulings by a UK court would not be binding under EU law in case of a no-Deal Brexit. With regard to centrally cleared products, banks might face an increase in Risk Weighted Assets (RWA) and will likely not be compliant with the European Market Infrastructure Regulation (EMIR) requirements in case systemically important UK Central Counterparties (CCP) such as Clearing Houses are not being authorised to clear EU27

products post Brexit. Therefore, reliance on a transition period in Brexit plans will most likely lead to an increase of the already existing uncertainty and could lead to a scenario where clients, that cannot be serviced even for a limited period of time, build business relationships with other market participants and are harder to win back than to keep. A reliance on the currently initiated emergency legislations or an EU unilateral and time-wise limited (12 months max.) equivalence decision or acceptance of the London Clearing House (LCH) as quasi CCP would not solve the issue. The solution offered in good faith by the EU and national EU legislators is meant to ensure a short-term 'no disruption' period and to avoid a 'cliff edge' scenario. In the justifications for the legislative initiatives, it becomes clear that those are following three basic rules:

1. The emergency measure needs to have sufficient differences to EU membership benefits,
2. It needs to be of temporary nature; i.e. max 12 months, and
3. It shall not serve to compensate banks and clearing members for a lack of preparation for Brexit.

Especially the latter suggests that the EU's patience will be rather limited.

In that sense, the lack of a business case should not tempt market participants to wait too long to take action.

3 The ECB is no different from other regulators

The ECB is the effective supervisor of all 6000+ banks in the Eurozone. For the time being, the ECB is performing only the supervision of significant banks with balance sheets equal to or larger than €30bn directly, delegating ongoing supervision of less-significant banks to National Competent Authorities (NCA). This supervisory framework is the result of the EU member states' post-crisis political will to create a level playing field by harmonising prudential banking regulation (as one of the most important parts because of the bank oriented capital market in continental Europe) on one side as well as supervision of this regulation on the other side. There is some added complexity by the fact that uniform regulation applies to EU members while ECB supervision applies only to Eurozone members. The introduction of a Eurozone-wide harmonised supervision by the ECB in 2015 has since then already reduced pro domo oriented decisions of the regulators (famous example: BaFin forbidding the transfer of liquidity of the Hypovereinsbank from Germany to Italy when its parent institution Unicredit was experiencing shortcomings). Thus a supervisory level playing field in line with the policymakers' intention was created. In addition, the ECB has, like any other supervisor, derived its own supervisory approach, leading to an in- or decreased data-based and process-oriented supervisory approach, depending on the national supervisory approach it is compared with. Some market participants point out that, while the SREP process allows for more discretion and judgement than supervision under the PRA/Bank of England, the supervisory culture of the ECB is closer to the one in the UK than the highly principles-based supervisory culture of other EU27 national supervisors. This is the situation which incoming banks will face when initiating or expanding their EU27-business.

In order to ensure a level playing field with regard to the impact of Brexit on the financial services sector and in order to avoid banks setting up empty shells in the EU and effectively continue business out of the UK, the ECB is and has been asking financial institutions to provide detailed information with regard to their Brexit plans. Its focus has been on information on booking models, internal governance and staffing, outsourcing, risk management, trading and hedging capabilities and related topics. 'Incoming banks' as well as existing EU entities conducting a material part of their business activities in the UK, are therefore expected to have transferred critical staff and processes and to have migrated EU27-clients in line with supervisory expectations in time for 29th of March 2019 in order to continue their EU business after Brexit.

Financial institutions in the EU are expected to be able to function self-sufficiently, i.e. including sufficient staffing, robust governance and risk management framework, independent trading capabilities as well as diversified market counterparties in the EU27. They should be able to clearly identify their hedging strategies, procedures, controls and governance in a booking model policy, to monitor and manage risks arising from intragroup exposures and to implement sufficient reporting capabilities and IT infrastructure required for their business model.

These supervisory expectations originate from the ECB's determination to retain the right to supervise, inspect and intervene in the EU27 business that is currently booked and risk-managed in the UK by financial institutions. The underlying assumption is receding regulatory coherence, i.e. regulatory and supervisory fragmentation. Being responsible for the supervision of EU27 based financial institutions the ECB as well

as the NCAs need to ensure that their intervention rights are not restricted in case of a crisis.

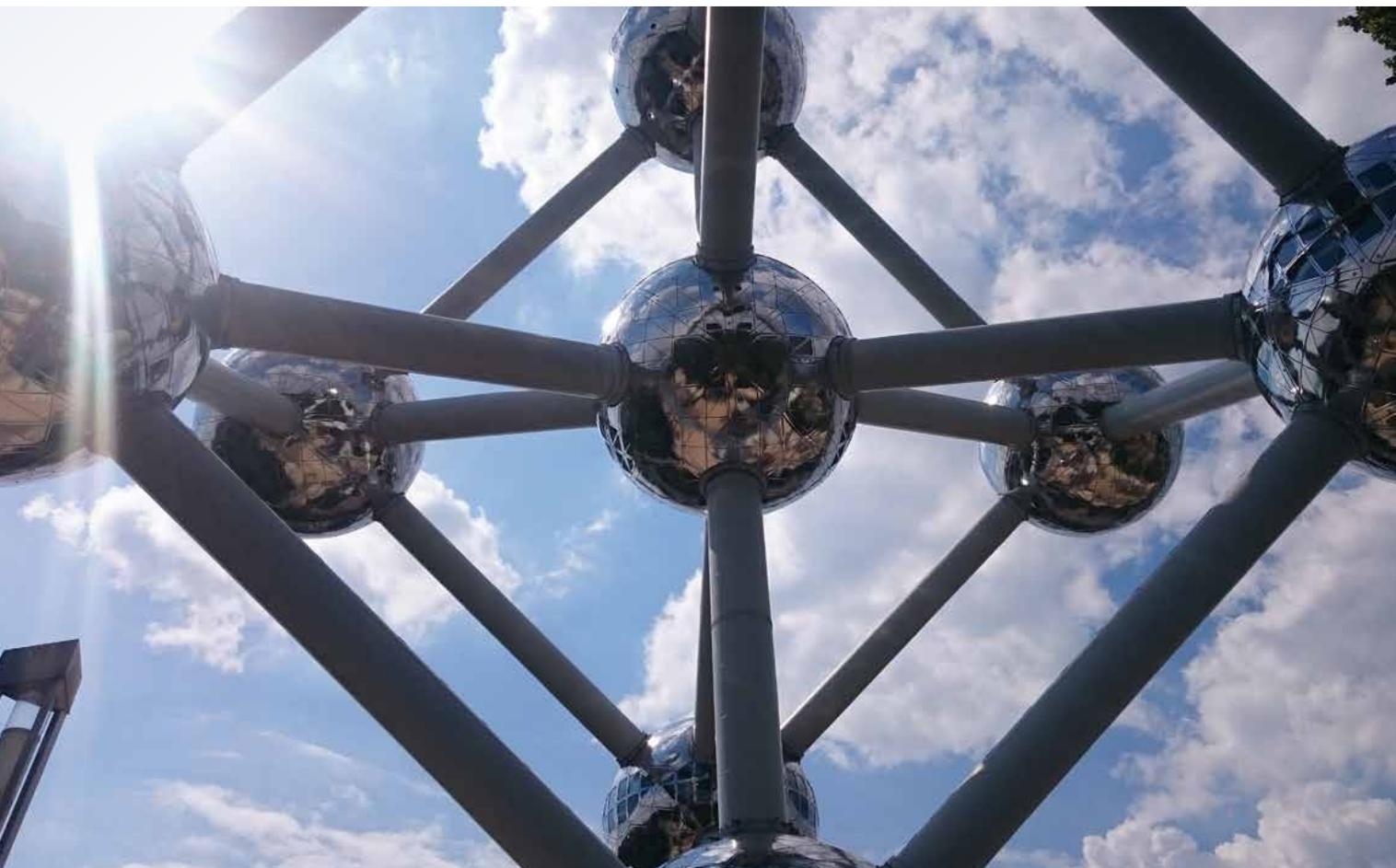
In order to enforce its supervisory expectations the ECB and NCAs have access to a number of instruments over the lifetime of the bank. These instruments are ranging from the initial granting or rejection of a banking or broker dealer licence under certain conditions, (not) granting waivers under Article 7 and 8 CRR, a reduction of (intragroup) Large Exposure limits unless certain conditions are met, as well as capital requirements. Although supervisory setups and cultures differ between the PRA/BoE and the ECB, in the end the latter is not different when it comes to protecting the ability to execute supervision over the banks it is responsible for and thus deliver on the mandate given to it by the EU parliament.

4 Brexit is not just another regulatory project

Since the Brexit referendum, it became clear that Brexit would not be a new regulatory project in comparison to what those banks have had to tackle in recent years such as CRD IV/CRR, MiFID II, EMIR, BCBS239 and others. Since EU27 licensed institutions fall under existing EU regulation and supervision, they are required to meet specific requirements as set out in a single regulation. Financial institutions are faced with the necessity to take decisions regarding how they want to face their EU27 clients post Brexit. If EU27 clients are part of the future business model, setting up new EU27 entities or adjustments to existing EU27 entities will become inevitable.

The resulting strategic recalibration requirement, the submission of licence applications for various EU27 activities, the review of existing

booking models and risk management strategies as well as the review of existing contracts with EU27 clients poses a huge challenge, which has to be tackled in a very short period of time. In addition, it also provides banks with the possibility to review the existing corporate structure, governance and reporting lines and strategic objectives in order to identify organically grown structures that should have been already adjusted but never received the required attention. Brexit should therefore also be viewed as a compulsory and, in some cases overdue, strategic corporate restructuring project. Although Brexit is not a regulatory project, it may have some characteristics in common with regulatory projects, both being disruptive for processes and business models.



The future of Capital Markets post-Brexit

1 Next steps to increase the EU27 Capital Market's attractiveness

Status Quo

The lack of clarity regarding a financial services agreement as well as equivalence discussions lead to the expectation that, from a UK perspective, the EU27 market will be one big closed market, which UK entities, in the absence of a free services agreement, can only access if possessing the relevant licences. In addition, on day one after Brexit, market participants should expect a medium to small fragmented capital market instead of one comprehensive EU27 market that replaces the market volumes lost with Brexit.

Brexit preparations revealed the extent to which the EU27 member states are dependent or (over-)reliant on the UK's capital market, which effectively absorbs a large part of capital market transactions entered into by European market participants. This (over-)reliance needs to be quickly reduced post-Brexit because with a fragmented capital market, the EU27 member states have to ensure that their real economy retains access to capital markets in order to finance growth and hedge risks. Moreover, they need to ensure that EU supervisors and policy makers are not exposed to pressure to agree to unwanted actions just in order to secure short-term access for the EU27 real economy companies to international capital markets. The only option for EU27 Capital Markets is therefore to move away from (over-)reliance on a now-foreign market and increase its competitiveness.

One essential factor in these discussions are the derivative markets and their infrastructures. Clearing houses in the UK are currently clearing trillions in notional derivatives business in London, with LCH.clearent alone possessing an overwhelming market share (e.g. >90% of EUR/USD denominated interest rate derivatives). Regulatory bodies such as the Basel committee and the International Organization of Securities Commissions (IOSCO) have spent years analysing the importance of CCPs for global financial stability and come up with proposals on regulating them. As a result, 'EMIR 2.2', i.e. the proposal for a regulation amending the European Securities and Markets Authority (ESMA) Regulation and EMIR was issued. It will regulate the authorisation of CCPs and recognition of third-country CCPs and as such is already a step in the right direction towards a more harmonised CCP supervision within the EU. The proposal would allow ESMA to classify third-country CCPs based on their level of systemic importance: Tier 1 CCPs, i.e. non-systemically important CCPs, could continue to operate in the EU27 under the existing EMIR equivalence. Tier 2 CCPs, i.e. systemically important CCPs, would be subject to stricter requirements. In addition, the proposal also mentions

'substantially systemically important' (SSI) CCPs, i.e. Tier 2 SSI CCPs or so called 'Tier 3 CCPs,' which would require an authorisation under EMIR and would need to relocate to one of the EU27 member states in order to provide services in the EU27. EU and ECB have concluded that post-Brexit, and with presumably diminishing regulatory coherence between EU27- and UK regulators, UK-based clearing will take place outside of the EU's legislative, supervisory and monetary policy influence. Not only will the EU27 lose the influence it would need over UK CCPs in a crisis situation but it will also forego the possibility to have influence on the legal framework governing business cleared in the UK and would therefore put a key instrument, used to shape the derivatives markets to its economic needs, out of the EU27's reach. To remediate this, the EU27 will need to create the right incentives for central clearing to take place in the EU27 territory, under EU legislation as well as under ECB's remit. Establishing and operating financial market infrastructures have technical and operational aspects that have to be paired by a business model that allows running them with profit and therefore ensuring stability. However, CCPs can only process business that market participants imagine, plan and contract.

From a EU27 Capital Markets perspective, Brexit is therefore also accompanied by the chance to develop capital markets in the EU and to decrease its dependence on London as a financial services hub going forward. Failure to create an EU27 capital market will severely endanger EU27 output growth and financial resilience and will put additional pressure on already impaired political stability in Europe. Thus, failure to create a EU27 capital market as a successor to the UK-centred capital market is not an option.

In order to create the required market efficiency, volumes, liquidity and depth, legislative, regulatory, supervisory and other measures need to be taken. Otherwise, capital market access for those entities looking for funding alternatives to bank lending (i.e. Initial Public Offerings (IPOs), equity and bond market funding) in EU27 countries as well as for investment opportunities will cease. High manifestations of market parameters like volumes, number of transactions and market participants, etc. are usually the characteristic of a developed capital market. High market volatilities, meaning parameters undergoing substantial changes over time (i.e. market volumes changing) are the opposite characteristic: These are frequent with less developed (i.e. developing market economies) capital markets. In times of high volatility, the ability of the market to allocate resources efficiently is reduced. The inability to sell securities at competitive prices reduces market liquidity. Lack of liquidity reduces wholesale banks' ability to refinance themselves on

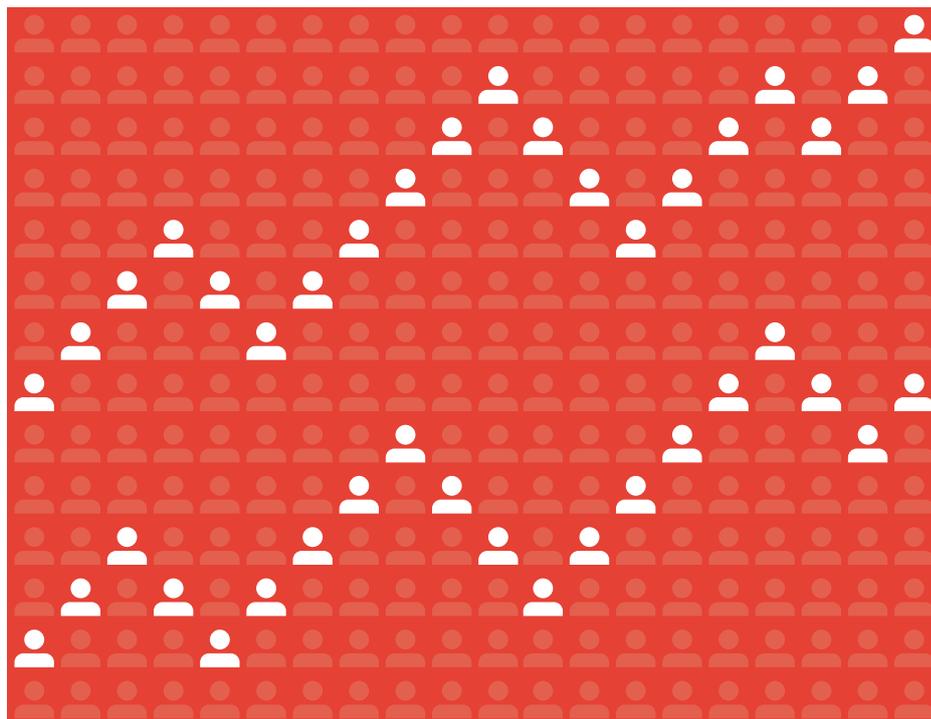
the capital market and reduces the banking sector's ability as a whole to transform capital market into real economy financing (the inability of the real economy to directly refinance on the capital market in itself being a sign of less developed capital markets). Changing magnitudes of liquidity hinder the development of an integrated capital market because market participants will shift their resources to markets that present them with the required investment and funding opportunities. This in turn reduces market size (point in time perspective) and development (over time perspective).

Success factors

Therefore, the first success factors are sound and stable governmental institutions such as a legal framework, regulatory environment and monetary policy, which capital market participants, including those from abroad, can rely upon. In order to moderate market volatility and keep market liquidity on a constantly high level, central banks engage in monetary policy and open market operations. These depend on the relevant legislation and the ECB's mandate (price stability exclusively or output stability as secondary target) but its ability to do so depends on its credibility. One prominent example is the ECB effectively protecting the liquidity of EU27 sovereign debt markets. In a scenario of EU27 capital markets changing parameters after Brexit, it cannot be ruled out that ECB will have to ensure that capital markets function in a way that they do not compromise ECB's other objectives, namely price and financial stability.

ECB and European regulators need to ensure that international regulation is implemented in a way that balances EU27 and foreign investors' interests with the requirement of financial stability. Additionally, EU27 legislators should resist the temptation to use capital market regulation in order to protect domestic players from international competitors, a phenomenon observed over the last 15–20 years in US- and Japanese capital markets. If the EU implements tougher regulatory requirements for international investors than other jurisdictions do, EU27 capital markets risk not succeeding in attracting global capital flows in an amount needed to finance the EU27 real economy. EU27 real economy clients will then lack the required EU27 domestic capital markets volumes and incur higher costs to access the international capital and hedging markets. For an open economic area which derives a large portion of its economic growth from trade and the relative freedom to exchange goods, services, capital and people within as well as beyond its borders, the EU27 real economy having to pay higher prices for financial services will pose the risk of lower growth paths.

So what should EU27 lawmakers do to balance market growth sustainably and financial stability? For the last thirty years, lawmakers have been using regulation as the instrument to influence who participates, which volumes are moved and what risk profile emerges. Before the financial crisis broke out in 2007 regulators took the direction to impose less regulation and allowed higher volumes and higher risk to build up (this development was fuelled by monetary policy in the time of the Great Moderation). Since the crisis broke out, the trend of regulation has inverted (that of monetary policy has not). Both ways have seen the instrument of regulation used to influence capital market outcomes directed at political will issued by policy makers. Therefore, regulation should, as all law-making targeting the economy, focus on market framework conditions. Investment flows on capital markets are fragile, highly dependent on a non-complex, stable and predictable legal environment protecting property rights at low cost. Such an environment is usually guaranteed by a sovereign state within its borders and/or possibilities to project power. However, one can doubt that even the largest EU27 economies such as France or Germany will be able to create the required volumes in the medium term in their own market alone. Instead, EU27 member states (including the European Commission and the Council) should rely on the mechanisms well established for a generation: To implement supra-national laws creating a level playing field for market participants in the EU27. In order to proceed quickly, the European Commission should begin by finalising the Capital Markets Union and analyse what legislative measures are additionally needed in order to ensure further-reaching harmonisation of rules and regulations across member states in the medium term. Harmonising the investment conditions across many of the world's most developed economies will help create a European capital market able to attract global capital flows needed to finance European economic growth.



The second success factor for efficient and competitive capital markets is a steady stream of skilled personnel. Capital Market transactions are among the most complex processes in the economy and require highly skilled human capital. The financial services sector thus depends on its workforce more than on physical capital, although Digitalisation is an important topic (see below), which itself is human capital intensive. Thus, a steady stream and a broad range of skilled experts is needed in order to develop, negotiate and administer transactions in highly developed capital markets. First, it includes good school and university education, training on the job and/or the possibility to change the career path from a services firm to a bank and/or vice versa. The availability of people depends on their own choice: Where will the best graduates sign their first job contract? This decision is often driven by the role that banking and finance in general plays in a countries' idiosyncratic value system (banking/finance arguably not ranking particularly high in Germany where engineering is still much more highly valued).

A competitive salary system will be an important prerequisite for graduates and experts to sign. This is especially true if, as is the case in the UK today. The national education system is simply too small to provide all human resources needed on a standalone basis in order to run one of the worlds' largest and most developed capital markets and thus, imports human capital from the rest of Europe.

In order to facilitate the provision of capital market related human resources all of the above have to be taken into account. The long-standing view of banking/finance cannot be changed on short notice and the educational systems of the EU27 can be judged as being competitive with the average in the UK. Especially questions of labour law for top managers (e.g. German "Kündigungsschutz") and/or remuneration issues that facilitate the mobility of specific human capital from other sectors to the capital markets must be analysed under the changing environment after Brexit.

The third important success factor is innovation and technological development: Capital market participants need to understand, embrace and shape the trends regarding new financial products and the technologies needed as their infrastructure. EU27 capital market participants have to compete with some of the most innovative places in the world and in order to enhance their competitiveness need to find ways to successfully create and maintain the ability and willingness for their experts to undergo continued learning. Regulators play an important part, as the regulatory regime needs to provide predictability and at the same time needs to be flexible enough to support innovation. As other industries, capital markets are highly dependent on technology. Two developments can be identified: (1) Compared to the past, the importance of data for business and regulatory reasons has increased but data availability has not kept pace and (2) IT systems of some market participants (especially banks as the most important players) do not always provide them with the infrastructure needed to manage their business. In effect, data and systems do not always provide capital market participants with the necessary capacities to quickly adapt to new environments. Artificial Intelligence will play an increasing part regarding mainstream financial services products, augmenting the portion of process steps not performed by human experts and thus freeing their capacities for more demanding tasks such as discretionary decisions. Financial institutions will need to incorporate these new digital solutions

and technological developments into their investment processes in order to stay competitive. Regulators need to ensure that supervisory expectations and regulation continues to provide adequate responses to innovation, e.g. by not discriminating new technology like AI in relation to human-based controls (given they produce the same control levels and do not pose additional risks). Thus, the supervisor and legislators have been pushing mainly banks to enhance their IT capacities and translate their data into a format (data warehouse) that can be used firm-wide and in a way not foreseeable at inception. This development was initiated in 2012 by the Basel committee's identifying of banks' shortcomings in their risk data aggregation capabilities as a systemic risk and as one of the major causes of the financial crisis (BCBS239). This insight came after decades during which the regulators had considered data issues out of scope of their supervisory duties. Banks have in many instances not been able to step up their bank-wide capacities while coping with the crisis from a business perspective and while in parallel implementing the regulatory tsunami that hit them in 2009, and which has been going on ever since. IT-system and data shortcomings also lie at the heart of other operative problems, e.g. the problem of migrating enormous number of trades from one (UK-based) CCP to another (EU27-based) in order to prepare for the disruptive effects of a no-Deal scenario for Brexit. Market failures such as underinvestment in IT capacities and path dependency (high cost of changes to initially implemented systems with

the effect of sticking to them although they are outdated in a stand-alone perspective) are a characteristic of the IT and data infrastructure and reach far beyond the financial sector. The cost of updating IT and data infrastructure becomes higher the longer the relevant investment is delayed. In addition, underinvestment happens and is prolonged as long as insecurity and/or volatility expectations prevail. Whether or not Brexit will be a forced change of the path and thus a point of investment, in order to close the gap market participants will depend on their expectations of market developments (where, how, in which magnitude) for the investment they make. More importantly, their ability to adapt to those developments will depend on their willingness to implement systems and infrastructures that allow them to such changes. Lack of such willingness and repeated underinvestment in IT now will create a one-off effect in raising the level of IT capabilities in order to meet the absolute minimum required by ECB in the future as well as limiting bank's capabilities to adapt to new business/regulatory developments going forward.

Overall, it becomes clear that in order to increase the EU27 capital market participant's competitiveness and decrease their dependence on the UK financial services sector, some crucial steps need to be taken by political as well as regulatory bodies in the EU. Investments to enhance success factors like a stable and reliable supervisory framework, a skilled workforce and technological development will pay off in the long run as EU27 capital markets grow.

2 Potential development of EU27 Capital Markets

Assuming that the above listed steps are taken and necessary investments to increase competitiveness are made, a huge development potential lies ahead of the EU27 Capital Markets, since closing the gap in depth between the EU27 and the UK would be a huge opportunity for the European economy. One projection states that, if EU27 markets closed half of the gap in depth with the UK, this would translate into more than €100bn a year in additional equity and bond financing for companies in Europe. Stock markets in the EU27 would be more than €3 trillion larger and there would be more than €6 trillion of additional long-term capital that could be put to work in the economy.¹

On average, markets in the EU27 are just over half as large relative to GDP as in the UK, and are deeper only in a handful of sectors (household financial assets, bank lending to companies, and the value of investment funds by domicile – a sector in which Luxembourg and Ireland account for 45% of all EU activity).² In the EU27 and Germany specifically, Small and Medium Sized Enterprises have remained heavily reliant on bank financing, especially from smaller local banks. However, due to regulatory requirements and new regulation, progress has been made to free up capacity on banks' balance sheets by reducing e.g. non-performing loans

and generate additional funding for the economy at many European banks (although there is still a long way to go). On average, bank lending represents 78% of corporate debt for EU27 companies and bond markets account for 22% in 2016 (compared to 13% in 2006). This is the inverse of the US with its market-based financial system, where bank lending accounts for 26% of corporate debt in 2016 (compared to 27% in 2006). In the UK, bank lending represents just over half of corporate debt with 54% in 2016 (compared to 63% in 2006) which shows the path that the UK has taken to convert from a bank-based to a market-based financial system.³

By increasing the competitiveness of EU27 capital market participants and therefore, also attracting cross-border investments, the current lack of IPOs and capital market financing could be remediated and development potential could be turned into reality. To conclude, despite the current decisions on third countries, the European capital markets will need to become one large and integrated market under a regulation that minimises risks and provides for predictable investment conditions. Such a market will be able to attract European and global investment volumes required in order to finance economic growth within the EU27.

¹ Wright, W./Asimakopoulos, P. (2018): A decade of change in European Capital Markets, p. 7.

² Wright, W./Asimakopoulos, P. (2018): A decade of change in European Capital Markets, p. 7.

³ Wright, W./Asimakopoulos, P. (2018): A decade of change in European Capital Markets, p. 10.

Contacts

Stephan Lutz

Partner
Capital Markets Leader
Tel: +49 69 9585-2697
stephan.x.lutz@de.pwc.com

Dr. Philipp Völk

Senior Manager
Capital Markets
Tel: +49 69 9585-3991
philipp.voelk@de.pwc.com

Ina-Alexandra Steiner

Manager
Capital Markets
Tel: +49 711 25034-1099
ina-alexandra.steiner@de.pwc.com

About us

Our clients face diverse challenges, strive to put new ideas into practice and seek expert advice. They turn to us for comprehensive support and practical solutions that deliver maximum value. Whether for a global player, a family business or a public institution, we leverage all of our assets: experience, industry knowledge, high standards of quality, commitment to innovation and the resources of our expert network in 158 countries. Building a trusting and cooperative relationship with our clients is particularly important to us – the better we know and understand our clients' needs, the more effectively we can support them.

PwC. More than 11,000 dedicated people at 21 locations. €2.2 billion in turnover. The leading auditing and consulting firm in Germany.

