

WELCOME TO CAPCO'S

REGULATORY MONITORING NEWSLETTER

2017 EIGHTH ISSUE

CAPCO

SECTION 1: REGULATORY ACTIVITIES

REGULATION OF VIRTUAL CURRENCIES IS GLOBALLY INCREASING

FOLLOWING JAPAN'S LEAD

After going into effect in April this year, the Japanese Payment Services Act was finally enacted in October 2017, marking a milestone in the global regulation of virtual currencies.¹ The Japanese Financial Services Agency (FSA) released a list of the first companies permitted to operate exchanges that trade fiat currencies against virtual currencies such as Bitcoin and Ethereum.

In Japan, which was the first national government to take such action, exchanges may be subject to annual audits and are bound by several regulations, to which these organizations must continue to comply with after registration.

Prior to being officially registered, exchanges have to go through a rigorous vetting process that focuses on, but is not limited to:

- Cyber Security
- Anti-Money Laundering (AML), i.e. in respect to Know-Your-Customer (KYC) regulations
- Combating the Financing of Terrorism (CFT)
- Financial Requirements²
- User and Investor Protection
- Data Security
- System and Operational Risk Management

Other countries are already set to follow Japan's move, as the table on the next page outlines:

¹ The applied definition for virtual currencies is defined as part of the Amended Settlement Act

² Minimum capital amount of JPY 10m as well as a positive net assets amount

Table 1: Non-exhaustive assessment compiled by Capco in October 2017

REGION	COUNTRY	REGULATORY STATUS ³	COMMENT
APAC	Australia	Regulation in progress	In a similar move to Japan, Australia is set to bring virtual currency exchanges under the remit of Austrac, the country's financial crime fighting agency while keeping a positive stance towards virtual currencies (including Initial Coin Offerings (ICOs))
	China	Regulated	Domestic exchanges and ICOs are prohibited, with only P2P or OTC trading being allowed
	Hong Kong	Unregulated	Being defined as a virtual commodity, virtual currencies are per se not regulated by any of the financial regulatory bodies, but KYC principles might however still be applicable to commodities trading. Depending on the token, virtual currencies might potentially be treated as securities
	Japan	Regulated	Bitcoin is recognized as legal means of payment. Authorities oversee virtual currency exchanges and require KYC and AML processes that are known from financial institutions
	Singapore	Regulation in progress	Virtual currency intermediaries need to comply with money laundering and terrorism financing regulation. A formalization of this understanding is expected as part of the coming payment services regulation
	South-Korea	Regulation in progress	Authorities will reportedly ban ICOs and recommend virtual currency exchanges to include consumer protection measures when providing services, as well as enforce trade monitoring
Europe	Germany	Regulated	Virtual currencies are financial instruments under German law and, more specifically, present a form of 'private money' that is subject to capital gains tax. Authorities recommend potential providers (i.e. exchanges) to obtain an assessment of their planned business activities at an early stage to clarify whether they are subject to supervision by BaFin and potentially facing high capital requirements
	Italy	Regulation in progress	New rules regarding AML laws as well as the introduction of a specific registry for 'Virtual Currency Exchange' are expected by December 2017
	Poland	Unregulated	Although government confirmed Bitcoin's legality, tax requirements are to be clarified
	Russia	Regulation in progress	Russian authorities have agreed to regulate the crypto-currency market and are expected to publish further details by the end of 2017
	Sweden	Regulated	Requires registration for any money-transmitting Bitcoin services. Virtual currencies are not currencies in Sweden but instead will be treated as assets
	United Kingdom	Unregulated	Since virtual currency exchanges are seen as FinTechs, they do not have to register under money laundering regulations in the UK
Middle-East	Abu Dhabi	Regulated	Virtual currencies treated as commodities. Introducing a similar model as Japan -- supporting token offerings
Americas	Mexico	Regulation in progress	The central bank is tasked to define regulations for companies operating with virtual currencies, however with no specific timeline published
	USA	Regulated	At the federal level, some businesses (for example, virtual currency exchanges) must be registered as Money Transmitters with the Financial Crimes Enforcement Network. Crypto-currencies are generally classified as commodities, with some tokens considered as securities
	Venezuela	N/A	The country's official stance towards virtual currencies is rather unclear with providers being shut down but re-opened soon after, as many Venezuelans are drawn towards Bitcoin due to hyperinflation
Africa	Kenya	Unregulated	Authorities to discuss regulations in early 2018
	Nigeria	Unregulated	The country's central bank is currently working on a white paper to possibly integrate and adopt blockchain technology
	Tanzania	Unregulated	The Bank of Tanzania is currently investigating if regulations are necessary, but issued warnings with regard to one's risk when trading Bitcoins

³ Regulatory Status Definition used in this article:

Regulated: Specific rules/ guidance have/ has been published by authorities for businesses (including the registration as a certain type of business, or legalization as legal means of payment, or contrary (complete) ban)

Regulations in progress: Authorities committed to introduce a regulatory framework

Unregulated: No clear decision/ stance/ bills from the central bank/ governments on how to deal with virtual currencies in respect to trading (OTC, P2P), exchanges, ICO)

REGULATION OF VIRTUAL CURRENCIES IS GLOBALLY INCREASING

FSA KEEPS A VERY CLOSE EYE ON APPLICANTS AND OPERATORS

26% of the market participants received permission to operate, while only 11 companies were permitted to operate in Japan as of October 2017 as a 'virtual currency exchange business'. According to the Japanese financial publication Newspicks, 17 companies remain under review⁴ of which 12 have chosen to shut down at their own discretion and two have not applied for registration since the regulation went into place.

The Financial Services Authority (FSA) is committed to continue monitoring the status of each company even after registration and expects regular reports on:

- Transactions that are suspected of involving assets related to criminal proceeds or customers' involvement in certain criminal acts; and
- Books and records on their business for each fiscal year as required under the Act of Settlement Funds

IMPACT

Regulatory influence is currently led by Japan, the United States and South Korea simply based on top traded volume. However, the Japanese Payment Services Act could be seen as a starting point for future regulations across the globe. Virtual currency exchanges and possibly other corporations linked to virtual currencies might soon be facing more and more regulations. Risk and regulatory expertise as well as know-how from the financial industry will be required to comply with an increasing number of regulators on a global scale.

Price moves in the virtual currency market can be expected to result from unfriendly or friendly regulation in addition to political and economic reasons. Due to its high volatility, central banks across the globe repeatedly warn about investing in virtual currencies ICOs. It will remain interesting to see how the new market participants play out their first mover advantage and challenge or potentially disrupt the currently applied industry models.

Although operating companies might be controlled in their business and operational setup by their domestic authorities, virtual currencies still do not offer the security to investors and operating companies as given by fiat currencies. Therefore, regulators also will have to investigate the topic of proprietary trading in conjunction with sufficient capital backing for these operators to avoid potential filing for bankruptcy.

CENTRAL BANKS MIGHT OFFER THEIR OWN DIGITAL CURRENCIES

With the current growth and public awareness of virtual currency, central banks potentially could find difficulties in meeting future inflation targets, since cash enables market participants to avoid negative interest rates -- making it more difficult to apply such monetary measures.

In their quarterly review⁵, the Bank for International Settlements (BIS), published their thoughts on central bank crypto-currencies: "Central banks will have to consider not only consumer preferences for privacy and possible efficiency gains — in terms of payments, clearing and settlements — but also the risks it may entail for the financial system and the wider economy, as well as any implications for monetary policy," the report said.

In the current setting, no eurozone member state can introduce its own currency due to their commitment to the Euro. A way out might be a mutual 'EURcoin' that is issued by the ECB and therefore backed and secured. Such measures are, however, very unlikely in near future, potentially giving advantage to other central banks.

BLOCKCHAIN CHEAT SHEET

Want to learn more about blockchain and its applications? Find our blockchain [cheat sheet](#) for your future reference.

⁴ <http://www.fsa.go.jp/menkyo/menkyoj/kasoutuka.pdf>

⁵ http://www.bis.org/publ/qtrpdf/r_qt1709f.pdf

IMPLICATIONS OF FINTECH DEVELOPMENTS FOR BANKS AND BANK SUPERVISIONS

Investments from banks and venture capital funds into financial technology or “FinTech” signal significant changes in the financial services sector. For that reason, the Basel Committee on Banking Supervision (BCBS) published on 31 August 2017 a consultative document depicting various scenarios to assess the potential impact of FinTech companies in the banking sector.

The following sections describe the two main parts of the assessment carried out by the BCBS. Firstly, the current FinTech landscape is presented together with the envisaged scenarios of the future financial services sector; and secondly, the potential opportunities and risks for banks and banking supervisory authorities are outlined.

FINTECH CURRENT LANDSCAPE

The BCBS identified that there is no formal definition on what FinTech means. Such a definition is crucial as it can influence how bank supervisors approach FinTech. For such effect, the BCBS has adopted the definition from the Financial Stability Board (FSB). FinTech is a “technologically enabled financial innovation that could result in business models, applications, processes, or products with an associated material effect

on financial markets and institutions and the provision of financial services”.

FinTech companies can be segmented in three product sectors, as well as in eight market support services (see Figure 1). The product sectors focus on core banking services, while market support services relate to innovations and new technologies.

SECTORAL INNOVATION			
CREDIT, DEPOSIT AND CAPITAL RAISING SERVICES	PAYMENTS, CLEARING AND SETTLEMENT SERVICES		INVESTMENT MANAGEMENT SERVICES
	RETAIL	WHOLESALE	
Crowdfunding			High-frequency trading
Lending marketplaces	Mobile wallets	Value transfer networks	Copy-trading
Mobile banking	Peer-to-peer transfers	Fix wholesale	E-trading
Credit scoring	Digital currencies	Digital exchange platforms	Robo-advice
MARKET SUPPORT SERVICES	Portal and data aggregators		
	Ecosystems (infrastructure, open source, APIs)		
	Data applications (big data analysis, machine learning, predictive modelling)		
	Distributed ledger technology (blockchain, smart contracts)		
	Security (customer identification and authentication)		
	Cloud computing		
	Internet of things / mobile technology		
	Artificial intelligence (bots, automation in finance, algorithms)		

Figure 1: Sectors of innovative services (Source: BCBS \ <http://www.bis.org/bcbs/publ/d415.pdf>)

IMPLICATIONS OF FINTECH DEVELOPMENTS FOR BANKS AND BANK SUPERVISIONS

It is worth highlighting that, based on a survey carried out by the BCBS, Payments is the sector with the largest share, 41%, of FinTech providers, which represents 298 companies. This is followed by market support activities with 27% share, which represents 195 companies.

The BCBS has expressed that the size and growth of FinTech are difficult to quantify. However, a good proxy for it are the venture capital investments as well as the total global investments in FinTech companies. As shown in Figure 2,

although venture capital investments have had continuous growth, the global scene shows a decline in 2016. This could signify that the enthusiasm surrounding FinTech reached an initial peak. The BCBS emphasizes that despite the observed peak, the number of products and services covered by FinTech is relatively low compared to the size of the global financial services sector. In other words, the BCBS considers that banks and bank supervisors will continue their long-term focus, while investments in the sector will linger.

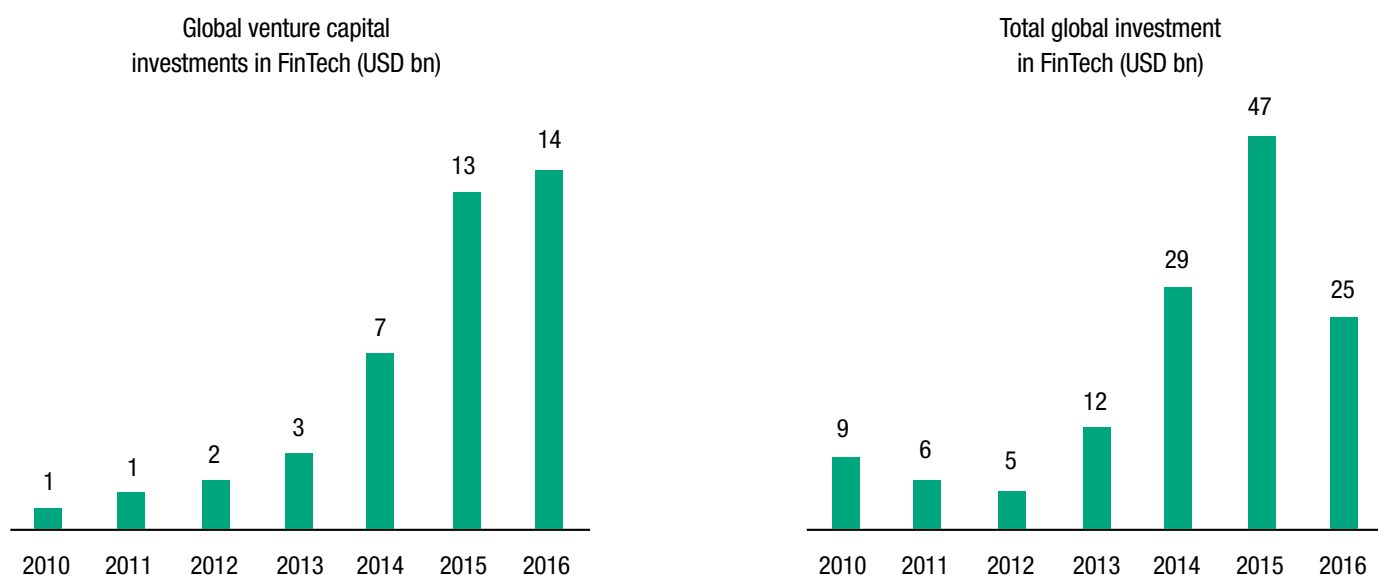


Figure 2. Global investment in fintech (USD bn) (Source: BCBS \ <http://www.bis.org/bcbs/publ/d415.pdf>)

FORWARD LOOKING SCENARIOS

The BCBS defined five scenarios to describe the potential impact of FinTech in the banking industry. The key questions used for depicting the scenarios are: 1) which actor manages the customer relationship or interface? and 2) which actor ultimately provides the services and takes the risk?

With these questions, the BCBS attempts to capture the potential changes originated by FinTech as well as by major technology companies called “BigTechs”. On the one hand, the BCBS foresees the battle will be led by FinTechs in relation to customer acquisition/ management, at the time banks will act as the responsible of the traditional core banking services such as lending, deposit-taking, etc.

IMPLICATIONS OF FINTECH DEVELOPMENTS FOR BANKS AND BANK SUPERVISIONS

The scenarios are:

The better bank: Banks digitize and modernize themselves. Banks leverage existing technologies and change their current business models.

The new bank: Banks cannot survive the wave of technology and are replaced by new technology-driven banks with full service built on digital banking platforms.

The distributed bank: Financial services become fragmented. Banks carve out certain services enough to survive. FinTech may provide “plug & play” products or services into platforms managed by 3rd parties.

The relegated bank: Banks become commoditized service providers (deposits, lending, and other core banking services) and give away the customer relationship to FinTechs. FinTechs use front-end customer platforms to offer a variety of financial services, while taking risk away from banks.

The disintermediated bank: Banks are no longer significant players. Banks are displaced from customer financial transactions by agile platforms ensuring direct matching (e.g. P2P lending).

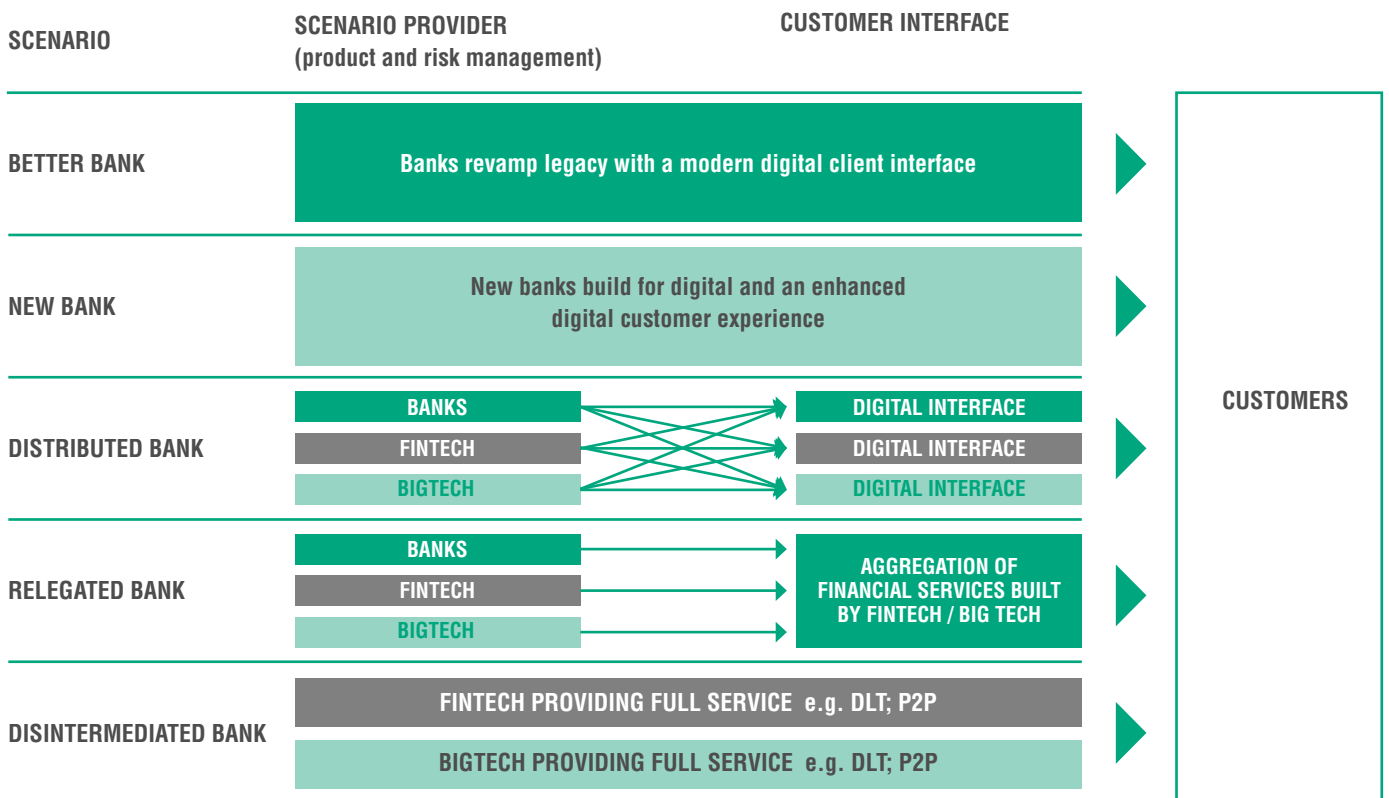


Figure 3: Overview of the five scenarios and the role players. (Source: BCBS \ <http://www.bis.org/bcbs/publ/d415.pdf>)

IMPLICATIONS OF FINTECH DEVELOPMENTS FOR BANKS AND BANK SUPERVISIONS

IMPLICATIONS FOR BANKS AND SUPERVISORY AUTHORITIES

The assessment of the BCBS identifies opportunities and key risks for both banks and bank supervisors.

OPPORTUNITIES

- **Financial inclusion:** FinTech can reach remote locations. Digital finance can quickly reach scale, reduce costs, and increase efficiency.
- **Better and more tailored banking services:** FinTechs could help the banking industry to increase their product offering. For instance, white-label robo-advisory services.
- **Lower transaction costs and faster banking services:** Innovations from FinTechs may speed up transfers and payments, while cutting costs.
- **Positive financial stability due to increased competition:** The entry of new players would allow banks to fragment services and reduce systemic risk associated with large players.
- **RegTech:** FinTech could be used to improve compliance processes. For instance, automating regulatory reporting.

KEY RISKS

- **Strategic risks:** Existing financial institutions may be losing substantial part of their market share or profit margin. New participants with disruptive technology may cause the banks' customer relationships to deteriorate compressing with this banks' margins.
- **High operational risk:** The rise of FinTechs would cause more interdependency between market players and market infrastructures. If IT services are concentrated in one or few players, an IT risk could escalate into a systematic risk.
- **Difficult in meeting compliance requirements:** In case banks process transactions on behalf of FinTechs, banks would need different AML/ CFT monitoring processes. High level of automation and segmentation of products and services could result in a lower level of transparency.

- **Cyber risks:** Increased use of cloud computing and other new technologies that have the purpose to increase interconnectivity could potentially make banking systems more vulnerable to cyberthreats.
- **Liquidity risks:** The fact that FinTech would allow customers to easily open accounts or switch banks that offer better returns could increase volatility of banks' deposits, resulting in higher liquidity risks.

IMPACT

The scenario analysis presented by the BCBS touches upon various topics which require immediate actions and planning from banks and supervisory authorities.

Banks need to review their business models and start making decisions on what processes need to be completely changed and which ones need to be strengthened. For instance, in case a product/ service is decided to be outsourced to a FinTech, banks need to strengthen its monitoring procedures to ensure regulatory AML/ CFT compliance.

Banking supervisory authorities need to design activities contemplating international cooperation with other bank supervisors. At the same time, bank supervisors need to review their current supervisory frameworks to identify what elements need to be updated or adjusted. This also involves training of current staff to ensure that knowledge, skills, and tools of their personnel remains relevant considering new technologies.

Link: <http://www.bis.org/bcbs/publ/d415.pdf>

TARGET2-SECURITIES (T2S) – EUROPE’S SETTLEMENT PLATFORM FULLY OPERATIONAL AFTER SUCCESSFUL GO-LIVE OF ITS FINAL WAVE

On 18 September 2017, the remaining Central Securities Depositories (CSDs) from Estonia, Latvia and Lithuania and Spain completed their migration to the T2S platform. With the completion of the final phase and by that covering the remaining markets, Europe now achieved to create a single and harmonized market for securities settlement – a major step in the European Union’s goal of building a capital markets union.

Almost all CSDs in Europe are now participating in T2S.

T2S is the single, pan-European platform for securities settlement. It is widely recognized as one of the largest infrastructure projects launched by the Eurosystem so far and makes a solid contribution to post-trade integration in Europe.

In each of its 5 waves, more CSDs were migrated to the platform and its volume settled increased. Until wave 4, T2S dominantly settled domestic transactions, while from wave 4 on, volume for cross-border transactions heavily increased.

WAVE 1	WAVE 2	WAVE 3	WAVE 4	FINAL WAVE
22 June 2015 - 31 August 2015	29 March 2016	12 September 2016	06 February 2017	18 September 2017
<ul style="list-style-type: none"> • Bank of Greece Securities Settlement System (BOGS) • Malta Stock Exchange • Monte Titoli (Italy) • SIX SIS (Switzerland) 	<ul style="list-style-type: none"> • Interbolsa (Portugal) • National Bank of Belgium Securities Settlement Systems (NBB-SSSS) 	<ul style="list-style-type: none"> • Euroclear Belgium • Euroclear France • Euroclear Nederland • VP Lux (Luxembourg) • VP Securities Denmark 	<ul style="list-style-type: none"> • Centrálny depozitár cenných papierov SR (Slovakia) • Centralna klirinško depotna družba (KDD) (Slovenia) • Clearstream Banking (Germany) • OeKB (Austria) • LuxCSD (Luxembourg) • KELER (Hungary) 	<ul style="list-style-type: none"> • Baltic CSDs (Estonia, Latvia, Lithuania) • Iberclear (Spain)

Table 2: The T2S journey from 2015 until 2017, Source: [ESMA website](#)

TARGET2-SECURITIES (T2S) – EUROPE’S SETTLEMENT PLATFORM FULLY OPERATIONAL AFTER SUCCESSFUL GO-LIVE OF ITS FINAL WAVE

Only the Cyprus CSD, operated by the Cyprus Stock Exchange, and the Greek CSD, Hellenic Exchanges SA Holding, Clearing, Settlement and Registration (HELEX), have not signed the T2S Framework Agreement. Euroclear Finland and NCDPCP (Slovakia) remain committed to join to migrate to the T2S platform, with migration dates to be decided.

NEXT STEPS

Harmonization activities are on track

A total of 24 T2S harmonization activities had been identified before the final migration wave to harmonize the T2S environment and maximize its efficiency further. The activities were categorized as:

- 17 “priority 1 activities”, which are seen as necessary by the ECB to ensure efficient and safe cross-CSD settlement in T2S. Resolution and implementation of such activities are expected prior to the respective launch of T2S.
- 7 “priority 2 activities”, which are deemed not essential to ensure safe and efficient cross-CSD settlement in T2S but are key for enhancing the competitive environment and the efficiency of T2S. These activities can also be pursued after the T2S launch.

The ECB will continue to monitor the markets’ compliance with the agreed set of harmonization standards. The recent mid-year T2S harmonization update demonstrated “a good record of compliance” for the final wave participants according to the ECB.

DKK TO MIGRATE IN OCTOBER 2018

The multicurrency aspect of the project will also become reality when Danish Krona (DKK) is made available for settlement in October 2018. Currently, no other currencies are planned to migrate, but T2S is ready if other countries see the potential of being part of the single pan-European settlement platform. However, “participation of the Polish Zloty in T2S is currently the subject of debate in the Polish National User Group,” according Iwona Sroka of Krajowy Depozyt Papierów Wartościowych.

IMPACT

With the successful migration of the Spanish and the Baltic markets as part of its Go-live of the final wave, T2S is now fully operational as one of the largest security settlement platforms in the world, settling an average of 550,000 transactions per day – approximately 10% above the initially anticipated number of 500,000 transactions per day. Almost all European CSDs have now migrated to T2S and are able to settle all their securities transactions in Euro via the platform.

Please find details on the latest migration wave on the ECB’s website [here](#).



EBA LAUNCHES CONSULTATION ON SIGNIFICANT RISK TRANSFER IN SECURITIZATION

(1) INTRODUCTION

On 19 September 2017, the European Banking Authority (EBA) started a public consultation concerning its discussion paper on significant risk transfer (SRT) in securitizations. This step is a part of a planned review of the implementation of the current guidelines in force since July 2014. The EBA seeks to advise the European Commission by year end on its decision to implement binding technical standards with this consultation.⁶ The main suggestions consist of requirements on certain structural features and specifications on the assessment process between the originator and the competent authority. The EBA asks for a discussion in which one of the focuses is set on the securitization of non-performing loan (NPL) portfolios. Along with the proposals the EBA displays the current securitization market and a feature on NPLs.

(2) CURRENT AND UPCOMING REGULATORY FRAMEWORK

The current framework for regulating the supervisory risk transfer in securitization is incorporated in the Capital Requirements Regulation (CRR) and EBA guidelines and supplemented by some local jurisdictions.⁷ The first of both is subject to changes which are expected to come into force in the beginning of 2018.⁸

The major subject of SRT is the definition of criteria which must be met by a transaction so that the originator does not have to include the transferred exposure in his calculation of risk-weighted assets.⁹ Furthermore, there is a proposed exclusion from the leverage ratio measure of regulatory capital.¹⁰

The regulation in place and upcoming regulation for CRR have similar but modified criteria. The first branch of criteria comprises qualitative requirements on certain tranches of the securitization, which should be met or an approval of a competent authority should be granted. The current EBA guidelines supplement the CRR in technical details. With respect to securitizations this is, for example, the assessment of structural features and procedures concerning securitizations.¹¹

(3) SUGGESTIONS OF THE EBA

(i) Process of SRT assessment by competent authorities and quantitative self-assessment

As a result of the extensive market study, the EBA determined the assessment process (in terms of deadlines for the originators, feedback dates, and in which manner feedback should be given) is not regulated within the EU. This leads to variation in practices.

The EBA proposes a deadline for the originator to achieve SRT approval for his transaction from the competent authority, notification duties upon material changes to the transaction, and feedback with a statement of objection or non-objection, respectively until an explicit point in time. A further annotation to this is the development of a notification template.¹²

As a supplement to the quantitative soundness of the risk transfers, the EBA suggests a self-assessment of the originator on how losses absorbed by 3rd party investors compare to the total losses of the transaction and the reduction in risk-weighted assets. This assessment should be based on different base and stress scenarios.

(ii) SRT assessment of complex structural features

Though regulatory requirements on some structural features already exist in the current EBA Guidance on SRT, it sees the need to further specify a set of structural features in aiming to keep the quantitative criteria stability fulfilled by a transaction. Those features are amortization structures, call options, excess spread, and in case of synthetic transactions cost of protection, early termination events and credit events which can hinder a significant risk transfer in some cases.

In the assessment of basic nominal waterfall structures and their nominal distribution over the lifetime of a securitization the EBA sees a potential to fast meltdown of possible credit enhancements beneficial to the tranche retained by the originator. Thus, EBA proposes a set of clauses for which either of them must be implemented in the securitization's contract. Furthermore, the amortization profile must be

⁶ Discussion Paper on the Significant Risk Transfer in Securitization p. 19

⁷ Discussion Paper on the Significant Risk Transfer in Securitization p. 12

⁸ Discussion Paper on the Significant Risk Transfer in Securitization p. 18

⁹ Discussion Paper on the Significant Risk Transfer in Securitization p. 11

¹⁰ Discussion Paper on the Significant Risk Transfer in Securitization p. 12

¹¹ Discussion Paper on the Significant Risk Transfer in Securitization p. 17

¹² Discussion Paper on the Significant Risk Transfer in Securitization pp. 31 -33

EBA LAUNCHES CONSULTATION ON SIGNIFICANT RISK TRANSFER IN SECURITIZATION

reviewed in the risk-transfer self-assessment¹³ formulated against similar schemes with similar impact but more complex formulation.

The EBA proposes specifications on call options in the contract, especially on time calls and gives criteria which circumstances call options are not considered having an adverse effect on the SRT.

As the EBA sees excess spreads committed by the originator as credit enhancement for synthetic transactions it proposes conditions on when and how these can support SRT. On the other hand, for traditional transactions the excess spread should be restricted to the portfolio's actual excess spread.

For the further regulation of specifics of synthetic securitizations, the EBA demands only the use of contingent premiums as a credit protection premium model, which should be considered in SRT self-assessment by originators of a transaction. For other termination clauses, the proposal only states the irrelevance of them for SRT. For the case of credit events, a compulsory contractual use of the three types of Failure to Pay, Bankruptcy and Restructuring as set in the CRR is proposed by the EBA.

IMPACT

As set out in the discussion paper and the announcement

of the discussion the goal of the EBA in this context is the revival of the securitization market as part of the European Commission's Capital Markets Union plan.¹⁴ As set out in the NPL discussion a secondary goal is to achieve lower levels of NPLs within the EU banking sector. It seeks to meet the primary goal through the harmonization of regulation and supervision of SRT.¹⁵

As a result, one can expect a further step towards the latter goal. Assuming the proposal of binding technical standards will be accepted in its entirety, a more detailed regulatory framework would be established in the EU. This would replace distinct local rules and practices, allowing a level playground across the EU. Originating institutions will have to regard the new concepts and checks suggested if they come into force. However, the decision to use securitization as a mean of regulatory risk transfer is subject to single institutions on their cost of securitizing assets and the willingness of investors to buy those instruments. The first cost of securitizations and the buy-side of the market have limitations which hardly can be influenced by the guideline in discussion. Those factors mean that it is still uncertain whether a revival of the securitization market can be achieved in the mid-or long-term.

Whether low levels of NPLs can be achieved is also dependent on creating a demand side for NPL securitizations.

INTEREST RATE RISK IN THE BANKING BOOK

The BCBS published the final standards in April 2016 that update the Pillar 2 Principles for the management and supervision of Interest Rate Risk in the Banking Book (IRRBB).

Banks are expected to implement these standards by 2018. Banks, whose financial year's end is on 31 December, would have to provide the disclosure in 2018, based on the information as of 31 December 2017.

IRRBB refers to the current or future risk to the bank's capital and to its earnings, arising from the impact of adverse movements in interest rates on its banking book.

There are different types of interest rates applied to products:

- Fixed rate: when the interest rate is constant

- Variable rate: when the interest rate is based on a market index
- Discretionary rate: when the interest rate is defined by the bank (combination between variable and fixed interest rate: $x\%$ fixed rate + $y\%$ variable rate)
- Regulated rate: when the interest rate is defined by the regulatory authorities or the government

Three sub-types of IRRBB can be distinguished. The table on the next page summarizes the different types of risks affecting entities:

¹³ Discussion Paper on the Significant Risk Transfer in Securitization pp. 40 ff.

¹⁴ Discussion Paper on the Significant Risk Transfer in Securitization p. 8

¹⁵ <https://www.eba.europa.eu/-/eba-launches-consultation-on-significant-risk-transfer-in-securitisation>

SECTION 1: REGULATORY ACTIVITIES

TYPE OF INTEREST RATE RISK		DEFINITION
GAP RISK	REPRICING RISK	Risk associated with the differences in interest rates to which products are indexed, and with the different repricing date of these products
	YIELD CURVE DEFORMATION RISK	Risk associated with fluctuations in the yield curve
BASIS RISK		Risk associated with spreads between the different yield curves to which products are indexed
OPTIONALITY RISK		<p>Option risk arises when a bank or a bank's customer has the right (not the obligation) to alter the level and timing of the cash flows of an asset, liability, or off-balance-sheet instrument. We have the explicit and the implicit option.</p> <p>An explicit option is an option that is exercised automatically depending on market condition (cap, floor...)</p> <p>An implicit option is an option that the client is free to exercise or not (prepayment, PEL/ CEL, early redemption of term deposit...)</p>

Table 3: different types of risks affecting entities

IMPACT

This new regulation has several impacts on the business model of the banks and on their limits and monitoring. The first observed impact relates to the business model of the bank. In fact, banks should implement processes to identify, monitor, measure, and control IRRBB. They must identify products and activities which generate IRRBB. A bank's activity produces exposures to both rate and maturity mismatch, e.g. long-maturity assets funded by short-maturity liabilities and fixed rate loans funded by variable rate deposits. Also, there are many banking products with options like non-maturity deposits, term deposits, fixed rate loans that are go off in accordance with variation of interest rates. Banks must set up a structure which is responsible for oversight of the IRRBB management framework. This structure should have sufficient technical knowledge to understand the bank's IRRBB strategies.

An impact on the limits of the banks is also observed. As a consequence of IRRBB, banks should have clearly defined risk appetite statement for IRRBB that are approved by the governing body. They also must implement policy limits that target maintaining IRRBB exposure consistent with their risk appetite.

Supervisors must publish their criteria for identifying outlier banks. Banks identified as outliers must be considered as potentially having undue IRRBB. When a review of a bank's IRRBB exposure reveals inadequate management or excessive risk relative to capital, earnings or general risk profile, supervisors must require mitigation actions and/ or additional capital like:

- Reduce its IRRBB exposures (e.g. by hedging);
- Raise additional capital;
- Set constraints on the internal risk parameters used by a bank; and/ or

- Improve its risk management framework or use the standardized framework.

At last, the IRRBB has an impact on the bank's monitoring. Therefore, measurement of IRRBB should be based on outcome of both Economic Value of Equity (EVE) and earning-based measures. Banks should be able to calculate the impact of changing cash flows from changing interest rates under multiple scenarios:

- Internal interest rate shock scenarios defined in the Internal Capital Adequacy Assessment Process (ICAAP) framework;
- Historical and hypothetical stress scenario;
- The six interest rate shock scenarios prescribed by the supervisor
 - Parallel (along the yield curve) shock up
 - Parallel shock down
 - Short rates down and long rates up
 - Short rates up and long rates down
 - Short rates up
 - Short rates down; and
- Any additional interest rate shock scenario required by the supervisor.

The adverse movements of the interest rates affect the bank's economic value. The value of the bank's assets, liabilities and off-balance sheet contracts is affected by the change in interest rates because the present value of the bank's expected net cash-flow change.

The method of Economic Value calculates the variation of the net present value of asset, liability, and off-balance sheet subject to specific interest rate shock scenarios. This indicator measures the change of the bank's value due to an instantaneous shock on the yield curve. The bank must have enough capital to absorb this change.

SECTION 2: CONTACT US

If you would like to find out more about Capco's Regulatory expertise around the subject areas discussed within these articles or if you have any other questions related to our Regulatory Monitoring Newsletter, please contact the Regulatory Monitoring team: CE_CM_RegMonEditors@capco.com

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