

Guidelines on the identification of critical functions and core business lines by the banking sector¹

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Introduction

1. The identification of critical functions and core business lines of the bank plays a key role in the process of drafting the recovery and resolution plans. For instance, recovery plan (to be drawn up by the bank), must include critical functions and core business lines identified through bank's self assessment and the resolution plan that is drawn up by the Bank of Albania, must demonstrate how critical functions and core business lines could be legally and economically separated from other functions so as to ensure continuity upon the failure of the bank.
2. This guidance aims to specify the criteria on definition and identification of critical functions and core business lines through bank's self assessment process and the criteria on identification of core business lines and related services based on the same approach.

I. Critical functions

3. According to Article 4, paragraph 18 of the Law 133/2016 "On Recovery and Resolution on banks, in the Republic of Albania" (hereinafter referred to as the Law 133/2016), critical functions are defined as follows:

“Critical functions” means bank’s activities, services or operations the discontinuance of which is likely to lead to the disruption of services that are essential to the real economy or to disrupt financial stability due to the size, market share, external and internal interconnectedness, complexity or cross- border activities of the bank, with particular regard to the substitutability of those activities, services or operations.

4. The definition of ‘critical functions’ incorporates several concepts that are not fully explained within the law itself but further clarified below:

- **“Function”**: a structured set of activities, services or operations that are delivered by the bank or group to third parties (including its clients, counterparties, etc.). Examples of critical functions can include credit granting to SMEs, deposit taking, financial advisory, clearing, payments, etc. The concept of “critical function” is intrinsically linked to the concept of the underlying services that are essential to the setting up of the deliverable services, relationships or operations to third parties. The latter concept, as detailed below as “critical services”, although not explicitly mentioned in the Law 133/2016, is addressed widely in this guidance, given its high importance in resolution planning and in the assessment of impediments to resolvability.

- **Activities, services and operations**: it does not seem possible to distinguish clearly between these three terms hence they are being used interchangeably to identify services and relationships with third parties and operations and activities undertaken for third parties, for the purpose of supporting bank's functions.

- **“Critical services”** are the underlying operations/activities/services performed for one or more business units or legal entities (shared services) within the group which are needed to provide one or more critical functions. The disruption or failure of these ‘critical services’

can present a serious impediment or completely prevent the performance of functions essential to the real economy and financial markets. Critical services can be either performed by one or more entities (separate legal entity, internal unit, etc.) within the group (Internal service) or be outsourced to an external provider (External Service). Critical services are inherently attached to the critical function and their identification follows the identification of a critical function.

This guidance presents elements of a test to determine whether a critical service is essential to the performance of a critical function. If an underlying operation/activity/service can be substituted easily by another provider, to a comparable extent, with a comparable quality, with an acceptable cost and within a reasonable timeframe, then it should not be considered a critical service.

- **“Critical operations”**: The concept “critical operations” has the same meaning as “critical functions” therefore it will not be treated separately.
- **“Real economy”**: this refers to the set of inter-related economic production and consumption activities of goods and services developed in an economy. In addition to the impact on the “real economy”, the definition of critical functions complements this with a reference to the impact on financial markets.
- **“Discontinuance”** of a function: means that a function is no longer provided to a comparable extent, under comparable conditions and with a comparable quality, unless this change in providing the function concerned takes place in an orderly manner. Therefore, as part of the identification criteria for critical functions, the impact of the failure of the bank on the continuance of a critical function to the economy and the financial markets should be assessed.
- **‘Substitutability’**: this refers to the ability to replace the provision of a certain function in comparable terms (i.e. to a comparable extent and quality and with an acceptable cost from existing or new market participants) and within a reasonable timeframe, thereby avoiding a disruption in the provision of functions that are essential to the real economy and financial markets.

II. Identification of critical functions by banks

5. The identification of critical functions is performed by banks through a self-assessment included in the strategic analysis of a recovery plan. This assessment includes the identification of critical functions based on the extent to which the real economy, financial markets and overall financial stability, would be impacted by the failure or discontinuance of services provided to the banks’ customers (or to third parties).
6. According to the definition of the Law 133/2016, for a function to be considered critical, it has to fulfil the following two elements:
 - i) The function is provided by a bank to third parties not affiliated to the bank/group;
 - ii) the sudden failure to provide that function would likely have a material impact on the third parties, give rise to contagion or undermine the general confidence of market participants due to:

- the systemic relevance of the function for the third parties; and
- the systemic relevance of the bank/group in providing the function.

This requires that the function cannot be substituted on acceptable terms within a reasonable timeframe, which would exclude such an impact of the failure.

7. Following the definition above, the criticality of a function can be assessed by banks through the performance of the following two- phase test:
- a) analysis of the impact of the sudden discontinuance of the function on third parties (“impact assessment”)
 - b) evaluation of the market for the provision of that function (“supply side analysis”);

2.1 Analysis of "Impact assessment" on third parties

8. Banks assess the impact of a sudden discontinuance of the function on third parties through the following elements:
- a) Impact on third parties that rely on that function: if the failure to provide the function only has a direct negative impact on a small number of counterparties which are not systemic themselves due to their size or interconnectedness (given the circumstances at the time of the assessment) then the function should generally not be considered critical.
 - b) Systemic impacts and interconnection: if the failure to provide the function has wide and material adverse effects on the real economy and financial markets, namely in terms of contagion effects and impact on market confidence, the analysis will focus on:
 - i. Contagion effects: whether the failure of the function is likely to disrupt the respective market and therefore to affect unrelated participants that are exposed to that market and thereby interconnected with the bank. For instance, if the bank’s function of market making for certain financial instruments fails, it can have a serious impact in drying up the liquidity of that asset market. The sudden decline in liquidity may have a material impact on the prices of those financial assets which consequently can jeopardise the liquidity or solvency of other counterparties in a “domino effect”.
 - ii. Market confidence: whether the disruption in providing the function would have a knock-on effect on a wide range and number of market participants (third parties) such as customers, service providers and public services; whether the market of that function is crucial to the functioning of any other market(s) and which interdependencies are at stake. Even if a function can be substituted, there is a risk that markets may be affected by a general loss of confidence amongst market participants, including retail functions. It is thus important to take into account the probability of a ‘domino effect’.
 - iii. Loss of market confidence is highly probable in the case of functions that are more “visible” or publicly known to counterparties, customers and the public (e.g. retail payment services), and is amplified when institutions are

interconnected. It can therefore be assumed that this would affect not only retail customers but also wholesale customers or counterparties.

9. Specific assessment criteria for the impact on third parties should include the following elements:

a) the nature and extent of the activity:

- type of function;
- global, national or regional reach;
- volume and number of transactions;
- number of customers and counterparties;
- number of customers for which the bank is the only or principal banking partner.

b) the relevance of the bank

- market share; the market share can be analysed from a number of perspectives, including but not limited to, the value or number of transactions or the number of customers as a proportion of the market, as appropriate.
- interconnectedness with other entities; to assess interconnectedness, quantifiable indicators may be applied.
- complexity; to assess complexity, quantifiable indicators may be applied.
- cross border activities.

c) the nature of the customers and stakeholders affected by the function:

- retail, corporate, interbank, central clearing houses, public entities, etc .

d) the impact of the disruption of the function on markets, infrastructures, customers and public services. In particular, the analysis could include the:

- effect on the liquidity of markets concerned;
- impact and extent of disruption to customer business, and short-term liquidity needs;
- perceptibility to counterparties, customers and the public;
- capacity/speed of customer reaction;
- the relevance of this market to the functioning of other markets;
- effect on the liquidity, operations, structure of another market;
- effect on other counterparties related to the main customers;
- interrelation of the function with other services.

Box 1.

When assessing the above criteria, banks can consider the following questions:

- What is the nature and extent of this activity?
 - Products, services, means of delivery, role (for example, in payment and settlement systems);
 - Global, national, regional;
- What is the nature of the customers and stakeholders:
 - corporate, interbank, retail, non-bank financial services;

- other sectors of the real economy (e.g., housing);
- What impact would disruption of the function have on **markets' infrastructure**?
 - Impact on other financial services entities and markets;
 - Speed at which disruption would cause that impact;
- What impact would disruption of service have on **customers** (i.e., how critical is the provision of this service to its end users)?
- How critical is the regular provision of the function to the health of the customer base?
- Will customers be able to recognise a firm's distress and react?
- What elements of the customers' operations are affected? Is the disruption likely to be across-the-board or affect only specific parts of the business?
- Are there knock-on effects of this disruption to other customers, suppliers, counterparties, etc.?
- What impact would disruption have **on market participants** other than customers, such as service providers, market utilities and public services? (similar questions to the above)?
- Is this market crucial to the functioning of any other market(s)? What are the interdependencies?
- Is the product always bundled with or tied to any other products?

10. In general, when drafting recovery plans, "the market share" plays an important role in the self-assessment of banks on critical functions. Therefore, threshold levels for market share varied significantly between banks for the same function, mainly reflecting the features of the market, in particular its degree of concentration. The threshold level for "visible" economic functions, ex. deposits, is lower than for "less visible" services, ex. payment or asset management transactions. As a consequence, specification of quantitative benchmarks is not sufficient for the definition of an economic function's criticality.

11. In principle, banks should be able deliver high quality analysis of the market situation and the impact on third parties resulting from discontinuance of the provision of a critical function. Banks usually have some insight in the market as a whole and in the situation of the third parties for which the functions are performed as well as of existing and potential market participants. Where this insight is limited, the banks obligation to undertake the analysis of the impact would apply on a best effort basis.

2.2 Supply side analysis

12. ***In general, the market should be able to substitute failing providers quickly.*** However, the structure of the supplier market and operational factors may make the timely substitution of a failing provider very difficult or impossible without adversely affecting the stability of the financial system. In addition, the costs of preparedness of third parties for a low-probability scenario may be unacceptably high. An assessment of criticality should therefore include a supply side analysis of the number and concentration of providers, availability of potential new market entrants, availability of readily substitutable products, the speed, costs and hurdles of substitution, and the willingness of other firms to provide the activities of a failing bank.

13. Banks assess the impact that discontinuity of an economic function has on supply side, through the analysis of concentration and *substitutability*: if the function and its role can be easily substituted by other market participants (including such that may newly enter the market), to a comparable extent, with a comparable quality, with acceptable cost and within a reasonable timeframe, than it should not be considered critical unless there is the risk mentioned above that markets are affected by a general loss of confidence among market participants.
14. Additional specific assessment criteria for assessing “substitutability” by institutions on a best effort basis:
- a) The structure of the market for that function and the availability of clear substitute providers:
 - The concentration structure of the market for the function, i.e. how many participants are in the market (including market shares, number of competitors or peer group participants that might be able to take over critical functions);
 - Assessment of whether there are other functions and markets that provide a function broadly equivalent to the activities of the failing institution or critical function;
 - b) Assessment of whether the capacity of providers would be sufficient to take on all activities or clients.
 - c) Assessment of the willingness of other providers to take on these activities and reasons why some existing or new market participants would find this business attractive while others would not (e.g. economies of scale, margins, cross selling²). The ability to substitute a function with acceptable cost may depend, among other things, on the profitability of the corresponding critical function. Nevertheless, the function does not necessarily need to be profitable to raise the interest of third parties in developing it. That can be the case when the bidder has a business structure where the incorporation of this function would complement its overall business.
 - d) Necessary requirements for performing this function and barriers to entry into the market:
 - organisational arrangements or infrastructure needed to provide this function, including the assessment of risk and counterparties (due diligence, market and risk analysis), in particular if the function is highly specialised;
 - the expertise and training needed for employees of the substitute function provider to develop that function;
 - significance and form of barriers to entry;
 - importance of brand, positioning or reputation;
 - the costs of substitution, including:

² Sale of related products, or additional products to existing customers.

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- identification of the share of the critical function within the institution in relation to manpower, fixed and variable costs;
 - internal interconnectedness: upstream and downstream services required by the critical function;
 - external interconnectedness: dependencies on other entities to perform the function;
 - complexity: whether specialist knowledge, specialised equipment and/or techniques are required, operational and organisational structure;
 - whether the activity is standardised or customised;
 - whether the performance of the function has cross-border links;
- the regulatory framework for providing the function, in particular regulatory approvals/requirements needed, for example with regard to large exposures;
 - other legal impediments to market entry, in particular, the assessment of the resulting market concentration with a view to potential obstacles from the Competition Authority.
- e) The expected time needed for other competitors (i) to take over the bank's activities compared to (ii) the time acceptable for the substitution to take place to prevent significant disruption. In this case as well, specific quantified benchmarks should not be used, as this assessment most likely depends of the type of service. In fact, timeframe and cost considerations may vary depending on the type of service and the impact of the time of discontinuance on the affected third parties: there may be services that should be available continually (e.g. payment services), while a reasonable timeframe for investment management, for example, could be longer. Nevertheless it would be advisable for banks to indicate the expected timeframe in their recovery plans. This applies also to the information provided at the Bank of Albania for the purposes of drafting the resolution plans.
- f) The time required by users of the service to move to the new service provider and steps and costs of that move, in particular, the cost that market participants would incur if forced to switch service provider.
- g) The timeframe within which a disruption in the provision of the product or service would materially affect market participants or market functioning.

Box 2.

The following questions are relevant to the assessment of the above criteria:

Concentration

- How concentrated is the market and what are the related trends (increasing/decreasing)?
- If highly concentrated, how many players are involved? What are the market shares of the other major firms? Is the market dominated by a particular bank or entities from a specific jurisdiction or region?
- Is there a particular reason for the level of concentration?
- How similar are the banks that dominate market share? If one typical bank were under stress, would other banks also be likely to be under stress?
- To what extent do individual banks with dominant market shares in the market in question also have dominant market shares in other critical markets?
- Would the failure of a large bank in this market have an impact on the ability of the market or related infrastructure to function?
- How small a market share would a bank need to have to fail without significantly disrupting the activity?

Substitutability:

- Are clear substitutes available?
- Would one single provider be sufficient to take on all activities or clients?
- Would other providers wish to take on these activities? And if an alternative provider were willing, what market concentration would result?
- Are there other products and markets that provide a function broadly equivalent to the activities of a failing firm?
- What are the necessary factors for performing this activity?
- How extensive are the organisational arrangements or infrastructure needed to provide this service?
- Does this activity have significant barriers to entry?
- To what extent do brand, positioning or reputation matter?
- Are there reasons why existing dominant players would find this business attractive while others would not (e.g., economies of scale that relate to the product in question)?
- How do banks compete for this activity?
- Is there evidence that this market is highly substitutable?
- How frequently do the main players in this market turnover?
- How many new players are involved in this turnover?
- How quickly would a substitute service provider need to be found to prevent significant disruption?
- Does a transaction involve extended exposure to a client (thus requiring greater due diligence)?
- Are there other barriers to entry for new service providers, and what form do these barriers take?
- To what extent is there interoperability between providers of the function? Are there common standards, procedures and interfaces?
- How quickly can users of the service move to new service providers? What are the steps and costs involved in such a move?
- Switching costs to the customer?
- Switching costs to the institution acquiring the customer?
- How much time is needed for the technical implementation of the new service

relationship (by the customer and by the service provider)?

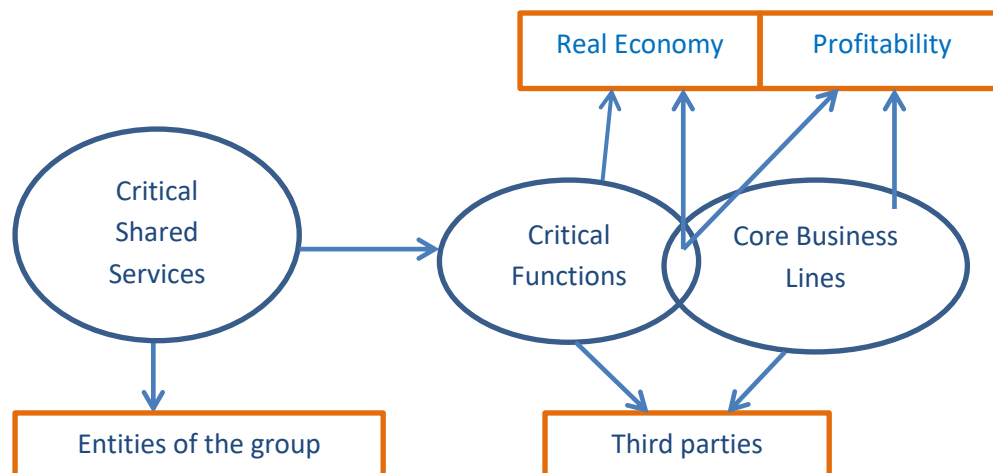
- How extensive is the expertise and training needed for employees to provide this service? How much knowledge about a customer is needed for a particular transaction?
- How tailored or customised is the product?
- Are regulatory approvals necessary?

III. Identification of critical services by banks

15. “**Critical services**” are the underlying services performed for one (dedicated services) or more business units or legal entities (shared services) within the group which are needed to provide one or more critical functions. The designation of critical services should follow the identification of the critical functions to the real economy and financial markets.
16. The following elements should be assessed when analysing the criticality of a service:
- a) **The impact of the failure of a particular service on one or more critical functions.** A service should be designated as critical only if the failure or malfunction would lead to the collapse of, or present a serious impediment to, the performance of one or more specific critical functions by the recipient of the service.
 - b) **The substitutability of the service.** This requires an assessment of how the critical functions would be adversely affected, and how quickly the critical service could be replaced, including the willingness and ability of internal or external service providers to provide these services at comparable extent, with a comparable quality and at an acceptable cost.
17. “**Critical services**” can be performed for one business unit only (dedicated services) or shared with more than one business unit (shared services). For the purpose of this Guidance, a critical shared service has the following elements:
- a) an activity, function or service is performed by either an internal unit, a separate legal entity within the group or an external provider. That activity, function or service is performed for one or more business units or legal entities of the group.
 - b) the sudden and disorderly failure or malfunction would lead to the collapse of or present a serious impediment to the performance of, critical functions.
18. If one of those elements is absent, this suggests that the shared service is not critical. For example, if an internal activity, function or service, such as facilities management, can easily be substituted from other, external, sources that shared service is not critical, even if it is necessary for maintaining the critical functions of the company. Similarly, the fact that an activity, function or service is shared does not necessarily mean that it is a critical shared service, as it may support tasks not directly related to maintaining critical functions: for example, a centralised marketing department.
19. Critical functions cannot overlap with critical shared services, but may overlap with core business lines. Figure 1 illustrates the key distinctions between the concepts ‘critical shared services’, “critical functions”, and “core business lines”. In contrast to critical shared services, critical functions are provided to third parties. Core business lines and critical

functions are both provided to third parties, but the key difference is that critical functions play an important role in the real economy or in the financial system, while core business lines are material sources of revenue, profit or franchise value. On the other hand, critical shared services are provided to the entities of the group.

Figure 1.



Source: Single Resolution Board - SRB.

20. Critical services are intrinsically linked to the critical functions that an entity performs to third parties. Therefore those underlying activities/operations/services should only be classified as being part of critical functions if their discontinuance would lead to the collapse of, or present a serious impediment to the performance of critical functions to third parties. These underlying activities should not be analysed separately but always together with these services provided to third parties. In contrast, the services to third parties may constitute critical functions which may be analysed separately and distinguished from the underlying activities.

IV. Identification of core business lines by banks

21. Core business lines play a role in recovery and resolution planning. The recovery plan has to contain a detailed description of the processes for determining the value and marketability of the core business lines, operations and assets of the banks. The resolution plan has to contain a mapping of the institution's critical operations and core business lines and a demonstration of how critical functions and core business lines could be legally and economically separated from other functions so as to ensure continuity upon the failure of the bank.
22. According to Article 4, paragraph 48 of the law 133/2016, **core business lines** "are business lines and associated services which represent material sources of revenue, profit or franchise value for a bank or for a group of which the bank forms part".
23. The definition of "core business lines" includes some concepts which are not clarified in the law, but as following :
- **“Core business lines”**: a structured set of activities, processes or operations that are developed by the institution or group for third parties to achieve the organisation's goals.

- **“Associated services”**: an activity or group of activities which do not by themselves generate direct profit for the institution (i.e. are cost centres) but support other businesses of the institution thereby contributing indirectly to the institution’s profits. Examples of ‘associated services’ include common or shared personnel, facilities or systems. Going into more detail, it is possible to distinguish between:

- a) internal services: those developed by an internal unit or a separate legal entity within the group (e.g. accounting);
- b) external services: those performed by an external provider, outside the bank/group (e.g. appraisals to real estate assets);

In addition, both “internal” and “external services” may encompass “dedicated services” (those performed for only one business unit of the bank/group, for example, a platform for credit limits) and “shared services” (those performed for more than one business units or legal entities of the group, for example, IT systems).

24. In general, core business lines could be identified by looking at the bank’s internal organisation, corporate strategy and also at the figures indicating how much they contribute to the financial results of the bank. However, this approach may not completely capture all core business lines because, for example, a bank might provide a service which is not directly profitable (or may even generate losses) but creates significant franchise value and is therefore important to its business as a whole.
25. Relying solely on quantitative indicators for the identification of “core business lines” should be avoided, as this may not accurately and completely reflect the complexity of the generation of profit in a bank with a high level of organisation and complex division of business. Instead, the identification of core businesses lines should follow the internal organisation of the bank as well some quantitative indicators.
26. For instance, a business line might generate losses in revenue but may still be classified by the bank as a ‘core business line’. This could be the case for a new business line that the bank has entered into and which is considered to have strong growth potential, although it is still in the investment phase. Naturally, this type of situation would require an extensive explanation by the institution about its business plan regarding what it considers to be its medium-term perspective for these ‘core business lines’ (i.e. what business lines will be relevant in the future and the scope of its strategy). The explanation could be supported by documents used for the internal reporting within the bank.
27. Future expected revenues, growth outlooks and franchise value should be supported by plausible, evidenced projections setting out the assumptions on which they are based.
28. Examples of identification indicators of core business lines could include:
 - revenues generated by the business line as percentage of overall profit;
 - profit generated by the business line as percentage of overall profit;
 - return on capital/assets;

- total assets, revenue and earnings;
 - the customer base, geographic footprint, brand and operational synergies of the banks' business with other group businesses;
 - impact of ceasing the business line on costs and earnings, if it is a source of funding or liquidity;
 - growth outlook;
 - the attractiveness of the business to competitors as a potential acquisition;
 - market potential and franchise value.
29. Where they are clearly linked to the continuity of existing profits or the realisation of growth potential and franchise value the market share of the business line and industry position indicator can be taken into consideration.

V. List of potentially critical functions, shared services and respective drivers of criticality.

30. This section describes a list of critical functions and shared services that could be potentially critical to banks. This list is not exhaustive, but consists of a starting point for critical functions assessment and identification. The critical functions are therefore assessed as **five broad categories** with distinct economic objectives and characteristics:

- a) Deposit taking;
- b) Lending and loan servicing;
- c) Payments, clearing, custody and settlement;
- d) Wholesale funding markets activities;
- e) Capital markets and investment activities.

5.1 Deposit taking

31. **Deposit taking refers to the acceptance of deposits from non-financial intermediaries. It does not include borrowing from other financial intermediaries, which is dealt with separately as “Wholesale activities” (see below).**
32. **Deposit taking refers to the whole lifecycle of the deposit taking activity.** This includes the acceptance of the deposit and the maintenance of deposit accounts and close substitutes (e.g., short-term retail notes). Criticality and substitutability of deposits may vary through the lifecycle.
33. **Deposits can be critical regardless whether they are covered by a deposit guarantee scheme or are subject to depositor preference.** The concept of criticality extends beyond the exposure to losses from a failing firm. The market reaction to a failing firm and the impact on financial stability may not be completely mitigated by the availability of depositor protection arrangements, but may also depend on their design and on other factors related to the market structure.
34. **The impact of failure of deposit taking activities on other deposit takers.** Deposits are “critical” to the bank insofar as they have a significant impact on its funding. However,

that impact is not taken into account for the purpose of assessing the criticality of that function. What is relevant for this purpose is the risk that the failure of a bank may cause systemic effects such as more general bank runs affecting other deposit takers.

35. **The impact of failure of a bank on the real economy.** Customers of a failed bank lose immediate access to their deposits, and are thus not able to execute payments. In addition, these payment difficulties also affect other private persons or firms not associated with the failed bank. In the event of the failure of a significant bank, the resulting liquidity shortage could have serious adverse effects on activity in the wider economy.
36. **If a general loss of confidence affects deposits with other banks, impact on the macroeconomic credit channel can be expected.** A breakdown of depositing activity on systemic scale is likely to have an impact on credit channels, as long as there are no mitigating actions e.g., by monetary policy. These measures are out of scope for the purpose of this guidance. However, firm-specific and market characteristics that facilitate or prevent contagion should be analysed and addressed.

a) Drivers of criticality

37. **In general, the activity of taking new deposits shows low criticality as long as depositors are willing to deposit with other banks.** The failure of a deposit taking bank prevents it from accepting new deposits but, in many cases, other market participants will be able to accommodate the increased deposit supply. Taking **new deposits** can therefore be regarded as **highly substitutable**. However, substitutability can be constrained by market structure and operational issues. In the retail segment, customers may not have easy access to other deposit takers, e.g., because of a lack of bank branches but also based on business model. Also, other market participants might face operational challenges in opening new accounts and handling deposit inflows on a large scale. As shifts from troubled, or perceived to be troubled, banks to other providers can also be regarded as time critical, difficulties or delays in transferring deposits to other providers can be a source of further instability.
38. **Deposits with little residual maturity are more critical.** Difficulties in paying out deposits can expose the depositor to liquidity problems and send out strong negative market signals which could lead to runs irrespective of the credit risk the depositors actually face. For longer-term deposits, credit risk is more relevant, whereas liquidity risk is less important. Also, customers with longer-term deposits are less dependent on their immediate availability.
39. **Criticality depends on the type of depositor.** Different types of depositors may exhibit different kinds of behaviour. Institutional investors have demonstrated that they act quickly and well in advance of a failure, and generally have greater choice of alternative providers. Also, these depositors tend to be more diversified and derive reduced or minimal benefit from deposit guarantee schemes since the size of the deposits often exceeds the covered amount. Deposit taking for institutional investors is therefore to be seen as less critical. Retail depositors may rely more on existing protection arrangements and are generally less diversified, though the availability of alternatives may be greater. As a result, retail deposits should be considered as critical.

40. **Criticality depends on the type of accounts.** Continuous access to deposits in transaction (current) accounts is critical for the smooth settlement of day-to-day financial transactions. The ability to maintain uninterrupted access to funds in support of the daily operations of both financial and corporate firms can be critical to mitigating the impact on financial stability. On the other hand, access to deposits in savings accounts is also essential but not as time sensitive as those in transaction accounts.

41. **Credible depositor protection arrangements can significantly reduce or mitigate criticality.** The assessment of criticality should consider the effectiveness and credibility of the protection arrangements. Deposit taking may be critical where the capacity of the scheme is insufficient to cover the failure of systemic banks or a significant group of smaller banks with similar risk profiles. Also, the ability of the protection arrangements to accommodate short-term liquidity needs of depositors (e.g., by means of prompt access to their funds through either rapid pay-out or deposit transfer) should be taken into account.

a) *Aspects to consider for the impact assessment*

- Are deposits subject to depositor preference and to what extent is any such preference expected to shield depositors from bearing losses?
- To what extent are deposits covered by a Deposit Guarantee Scheme:
 - by depositor type?
 - by size of deposits?
 - by maturity?
- What are the maturities of outstanding deposits?
- Do circumstances increase the probability of the withdrawal of deposits on systemic scale, due, for example, to:
 - market share of the failing bank?
 - market share of a group of banks perceived to be similar to the failing one?
- Is the Deposit Guarantee Scheme credibly capable of covering the failure of:
 - the failing bank?
 - a group of banks perceived to be similar to the failing one?
- Are depositor protection arrangements in place to cover the immediate liquidity needs of depositors even in stress scenarios?
- What impact is expected on the funding structure of other banks?

b) *Aspects to consider for the supply side analysis*

- What are the characteristics of the supply side market structure:
 - concerning depositor types (retail, institutional)?
 - in a particular region?
- Are alternative providers able to cope with a significant number of new accounts and inflow of new deposits from a financial, operational and technical perspective?

5.2 Lending and loan servicing

42. **Lending refers to the provision of funds to non-financial counterparties, such as corporates or retail customers.** Lending to financial counterparties is a distinct activity and assessed as “wholesale activities” (see below).
43. **Lending can be critical if liquidity and funding strains for the borrowers occur before customers can find alternative sources of credit.** The real economy depends on a regular flow of credit. The failure of a lender will expose borrowers to both near- and long-term liquidity constraints. The ability of borrowers to adapt to the failure of a bank will be affected by the terms on which they borrow and the ability to find alternative sources.

a) Drivers of criticality

44. **Standardisation increases substitutability and reduces criticality.** Standardised products are more easily substituted or transferred to other banks than customised ones. Where lending is based on collateral, greater standardisation of collateral terms and transparency of collateral values also increase substitutability.
45. **For business lending, borrower size generally increases substitutability and reduces criticality.** Larger firms will typically have access to a wider range of potential lenders and many of the largest firms will have direct access to debt capital markets. Small and medium enterprises, by contrast, will typically only have a single house bank. Financial information about such firms may also be limited, further restricting the ability of other banks to quickly substitute for the failed bank.
46. **For consumer lending, standardisation of underwriting (through such means as broadly available credit scores) increases substitutability and decreases criticality.** The substitutability of consumer credit products increases with the level of standardisation. The availability of credit scores that are not proprietary to a specific bank further increases substitutability.
47. **Lending that is shorter term is more likely to be critical than lending that is longer term.** Short-term lending often supports the working capital needs of firms through credit lines or overdrafts with their banks. Both products would be likely to have an impact on the economy if disrupted in the short-to-medium term. In contrast, the borrower is not immediately affected by the failure of a firm that has provided it with term credit.
48. **Non-bank lenders might increase substitutability, especially when ample liquidity is available.** Non-bank lenders, such as money market funds, insurers and finance companies, provide funds to the overall economy in certain jurisdictions. However, this role is limited to specific market segments. Moreover, non-bank lenders may excessively rely on leverage provided by banks, restricting their ability to play this role in a more general systemic crisis. The potential for non-bank lenders to replace the functions of a failed bank therefore needs careful analysis.

a) Aspects to consider for the impact assessment

- Which kind of counterparties are loans extended to?
 - Are the loans extended to a large group of small borrowers (e.g., retail)?
 - Is the group of borrowers small, but are the loan sizes considerable on average (e.g., commercial loans)?
- What are the funds used for?
 - Are they used for short-term liquidity provision?
 - Are they used more for investment-like purposes?
 - Mortgages (Residential / Commercial / Construction Financing)
 - Commercial financing
 - Are they used for short-term consumer financing (e.g., credit card loans)?
- What is the average size of a loan?
- What is the average maturity?
 - Is the loan assumed to get rolled over with the same provider when maturing?

b) Aspects to consider for the supply side analysis

- What are the characteristics of the supply side market structure in particular lending segment or region?
- Are there alternative banks with sufficient relevant expertise to quickly replace the failing bank?
 - Do other banks have a sufficient track record in providing loans to a particular segment?
 - Do other banks have experience in risk management in regard to the lending segment in question?
 - Do other banks have established operating procedures to take over a significant share of new business?
 - Are other banks able to perform the activities on a sufficient scale?
- How are the loans collateralised?
 - What kind of collateral is pledged?
 - Is there a standardised, independent and transparent valuation process?
 - Are the collateral arrangements easily transferrable? Does the use of collateral for several loans impede transferability?
 - Does the value of the collateral correlate with counterparty risk?
- To what extent is the particular lending segment standardised?
 - How similar are the loan contracts?
 - How similar are credit risk procedures?
 - Are the loans or the portfolio of loans suitable for securitisation or transfer to a special purpose vehicle?
 - Is credit history based on a formalised and transferrable assessment or does it rely on the existence of a longer-term business relationship?

5.3 Payments, clearing, custody and settlement

49. **For the purpose of this guidance, the payments, clearing and settlement function is limited to those provided by banks to their clients.** The guidance does not cover pure service providers, precisely the “Financial Market Infrastructure”. However, the scope extends to non-bank entities of a bank, as some of the critical payments, clearing and settlement functions might be provided out of a non-bank entity of the firm, e.g., a broker dealer.
50. **The types and levels of payment, clearing and settlement services provided by a bank to facilitate financial transactions may vary depending on their role in the functioning of the financial markets.** A bank may provide payments, clearing and settlement services as an intermediary between its own clients or as an intermediary between a client and relevant FMIs. In some cases, the bank may also be a provider of payment, clearing and settlement services to a FMI or may provide access to FMIs to other banks that are not clearing members.
51. Several functions in the area of payments, clearing and settlement and related services are performed across borders or implicitly rely on the availability of functions and access to funds and infrastructure in several countries. Depending on the function, the analysis of criticality might have to include both a national and a global perspective. This is the case for FX clearing and for related functions such as global cash management.

a) Drivers of criticality

52. **Market concentration increases criticality.** The higher the market share of a provider in a particular market segment, the greater the criticality, as the failure of a large provider affects more counterparties and may also impede the liquidity of certain asset classes and of FMIs active in the relevant market segment.
53. **A greater scope of operation increases criticality.** Payment, clearing and settlement services to a larger geographic area, involving high volumes or high values, are deemed to be more critical.
54. **Complex, non-standard interfaces increase criticality.** Professional customers need more time to migrate to alternative services if payment, clearing and settlement services are provided through complex, non-standard interfaces.
55. **The availability of substitutes reduces criticality.** The availability of alternative channels to clients may reduce criticality, although the assessment must take into account timing, efficiency and costs. The existence of high standardisation and common products, rules, operational and technical procedures can enhance substitutability.

56. **The link to related services, e.g., transaction accounts, deposits and custody, might increase criticality.** Having access to the funds or securities to be transferred is a prerequisite to use payment, clearing and settlement services. The link to those related services might reduce substitutability and increase criticality.
57. **The reliance of FMI providers on services of the bank increases criticality.** In some cases, banks provide payment, clearing and settlement services to FMI providers. Banks might also play a role in the liquidity provision to FMIs. The failure of such banks can have a direct impact on the functioning of the FMI and thereby indirectly affect a large number of counterparties not related to the troubled firm.
58. **Criticality depends on the asset class to be cleared and the ultimate counterparties of the transactions.** An interruption of clearing and settlement of high volume and highly liquid asset classes is likely to have more impact than an interruption in less important or isolated ones. Therefore, analysis should be differentiated by asset class and may be dependent on the actual circumstances in the market. The type of ultimate counterparties, e.g., financial intermediaries or non-financial firms, should also be considered.
59. **The assessment of criticality depends on the structure of the markets and their segmentation. Links between market segments increase criticality.** Payments, clearing and settlement is normally segmented across asset classes, e.g., cash in various currencies or types of securities are settled through different channels. Also, the channels used for a transaction may depend on size and volume. However, many transactions involve several legs that are settled through different channels. Through these links, the disruption of a service in one segment can affect others.

a) Aspects to consider for the impact assessment

- What kind of counterparties are payment, clearing and settlement services provided to?
 - To what extent are the services provided to retail, corporate, financial or institutional counterparties and FMI?
 - What is the relationship between the number of counterparties, the volume and value of transactions? Is the number of counterparties limited, but average payment sizes significant (e.g., role of settlement agent for a financial counterparty)?
- What is the impact of a potential interruption on the counterparties?
 - Does an interruption of the service affect the liquidity position of the counterparties? Which payments (if any) can be postponed for a limited period?
 - Do the payments volumes or sizes vary significantly (e.g., end of month payments)?
 - Are the payments subject to unwinding? Is there any automatic termination or unwinding? Is there any regulatory stay in crisis scenarios?
 - Does the mechanism include novation of obligations?
- Are the transactions collateralised?
 - What type of collateral has to be pledged?

- Is there a standardised, independent and transparent valuation process?
- Are the collateral arrangements easily transferable?
- Does the value of the collateral correlate with counterparty risk?

b) Aspects to consider for the supply side analysis

- How is the market segmented?
 - by asset classes (cash, securities)?
 - by transaction characteristics (size, volume)?
 - by counterparty type (retail customers, small and medium corporates, large corporates, financial intermediaries, institutional investors)?
 - by region (on a national and an international level)?
- How concentrated is the market?
 - What underlying measures are the market shares based on? For example:
 - payments (average gross volumes and values as per cent of total system volumes and values);
 - clearing and settlement (level of trading activity as a proxy for clearing and settlement activity);
 - custody services (value of assets under custody as a percentage of total market value);
 - the amount of revenues generated from payment, clearing and settlement activities as percentage of total market revenues.
 - To what extent do providers settle transactions internally without crossing to external providers (e.g., other banks or FMIs)?
 - To what extent are providers able to net transactions?
- Do other providers have relevant expertise in a particular payment, clearing and settlement segment?
 - Do other providers have a sufficient track record in providing payment, clearing and settlement services to a particular segment? What are their market shares?
 - Do other providers have experience in risk management in the segment in question?
 - Do other providers have established operating procedures to take over a significant share of new business?
 - Are other providers able to perform the relevant servicing activities on a sufficient scale?
- Are there impediments to substitutability?
 - How quickly can clients move to other service providers?
 - How can availability, authenticity, integrity and confidentiality of data be safeguarded during a migration?
 - How costly is it to customers to switch to other service providers in a timely manner? Is it reasonable for customers to establish access to alternative channels in advance?
 - Are there barriers to entry into the market for new service providers?
 - Will new providers be able to gain membership to relevant FMIs sufficiently quickly? Under what conditions are troubled providers able to maintain membership?
- To what extent is the particular payment, clearing and settlement segment standardised across providers?
 - How similar are the underlying products, legal and operational frameworks?

- How similar are risk evaluation procedures?
- How deeply embedded are payment, clearing and settlement services with other business activities of the bank?
- How are risks and costs associated with storage and delivery of physical instruments and commodities identified, monitored and managed?

5.4 Wholesale funding markets

60. **Wholesale activities refer to lending and borrowing in wholesale markets to and from financial counterparties. It does not include intra-group flows. The primary reason for considering wholesale functions to be critical is the potential for contagion across the financial system.** Disruption of certain wholesale markets may expose counterparties to significant liquidity and solvency strains, which in turn have the potential to prevent counterparties from providing other critical functions. Contagion might also occur through indirect effects; for example, the run on a bank with illiquid assets that were financed by short-term liquid liabilities might spread quickly to other banks and markets.
61. **Wholesale activities take place on highly segmented markets, e.g. interbank market not all of them having the potential to cause substantial contagion.** Criticality of wholesale activities crucially depends on the systemic relevance of that market.
62. **Wholesale activities are deemed to be critical if liquidity and funding strains occur for the borrower before alternative sources of credit can be found.** A wholesale activity might be considered critical if the failing institution had been a major provider of liquidity for wholesale markets and cannot be replaced before liquidity strains emerge.

a) Drivers of criticality

63. **Systemic relevance of the wholesale market increases criticality.** Criticality depends primarily on the systemic relevance of the market. While foreign currency (euro and dollar) financing markets and interbank markets are critical, wholesale markets for funding in smaller currencies might not be.
64. **A highly interconnected borrower/ lender increases criticality.** A bank's criticality is likely to be positively correlated with its interconnectedness with other financial institutions.
65. **A high market share in wholesale activities increases criticality.** A bank's distress or failure is more likely to damage other financial market participants if its activities represent a large share of activity in the wholesale market. The larger the market share of the bank, the more difficult it is for its activities to be quickly replaced by other banks and therefore a greater chance that its distress or failure would cause disruption to the wholesale activities.

66. Excessive maturity transformation or leverage increases criticality. Short term wholesale funding for large-scale investment in long term, illiquid assets may be critical if the wholesale liabilities cannot be rolled over, and no other funding can be obtained. To the extent this cannot be solved through adequate capital and liquidity regulation, a fire sale of assets by the troubled firm and a consequential depreciation in asset prices might be the result, putting pressure on the balance sheets of institutions with similar assets and triggering a self-enforcing vicious circle.

a) Aspects to consider for the impact assessment of wholesale activities

- Which wholesale markets would be affected?
- Are these markets of systemic relevance?
- Which kinds of counterparties provide funding to the bank?
 - Is the funding provided by different lenders (e.g., diversified across countries)?
 - Is the group of lenders small, but are the loan sizes considerable on average?
- Is the funding used for an investment in long term, illiquid assets?
- What is the average size of the wholesale funding?
- What is the average maturity of the wholesale funding?
- Is the loan implicitly or explicitly assumed to get rolled over with the same provider when maturing?
- How quickly can the funding be obtained from another provider?
- How many unencumbered assets are available for pledging as security?

b) Aspects to consider for the supply side analysis of wholesale activities

- What are the characteristics of the supply side market structure in a particular product and region?
- Are there alternative providers with sufficient expertise in the particular wholesale segment?
 - Do other providers have experience in risk management of products used for wholesale funding?
 - Are other providers able to invest a significant amount of liquidity?
- What kind of collateral is used?
 - What kind of collateral is pledged?
 - Is there a standardised trade and valuation process?
 - Are the collateral arrangements easily transferrable? Does the use of collateral for several loans impede transferability?
 - Does the value of the collateral correlate to counterparty risk?

5.5 Capital markets and investment activities

67. Capital markets activities refer to the issuance and trading of securities, related advisory services, and related services such as prime brokerage. They also include investment of the firm's own capital in private equity or similar principal investments.

68. This section focuses, **first, on the primary issuance market for securities** (including any issuance activities on behalf of sovereigns) and the related advisory services (M&A advisory, debt structure advisory, etc.); and, **second, on the activities related to trading securities – both on behalf of clients and on the firm’s own account.** This includes acting as a broker or market maker of securities and providing services directly related to this activity such as margin lending and prime brokerage.
69. **Capital markets activities rely heavily on payments infrastructure.** The payments, clearing and settlement portion of capital markets businesses is handled in a separate section, given the close relation between payments for capital markets businesses and other payments markets and infrastructure. Repo, securities lending and other funding for the capital markets are included in the wholesale funding section.

a) Drivers of criticality

70. **In primary markets, substitutability is influenced primarily by the number of firms with distribution capacity and expertise in the relevant market: capital base may be a secondary factor.** Primary markets providers tend to be highly substitutable, as securities are relatively standardised products. Pending deals can be moved to another firm with relative ease provided that the new provider has access to a large investor base, and the delay in a deal does not normally have any systemic impact. In some smaller capital markets, there may be a limited pool of capital markets providers. For very large deals, the substitutability may be constrained by the ability of a firm to hold securities on their balance sheet in an underwriting.
71. **In secondary markets, the timeframe for substitution is driven by the transactional intensity on one side and the procedural steps required to transfer client accounts on the other.** The speed at which the failure of a capital markets activity would be transmitted into the financial system will reflect the ease and speed of substitution relative to the speed at which distress would be transmitted to counterparties, clients and markets. The volume and frequency of transactions is a main driver that would determine how quickly stresses at one firm would be passed on to other firms and to markets. Firms are more likely to be critical in markets where a limited number of firms make markets with two-way prices in a given security or derivative exposure. Liquid, more heavily traded products are more easily substituted or transferred to other firms than customised ones and tend to be less critical. Markets in which there are only a limited number of local competitors actively trade will more often have critical players than one in which there is broader competition.
72. **Bundled services, credit or liquidity provision on behalf of customers decreases substitutability and increases criticality.** The inclusion of ancillary products and services in the offering to customers will tend to reduce the portability of client accounts. In some markets, such as prime brokerage, multi-broker relationships of clients will reduce the susceptibility of the market to disruption. The new provider, however, may need to provide cash to the failing provider before taking on the client accounts.

73. **Client account portability may be a major factor in many markets.** The available infrastructure for transferring accounts varies greatly across markets, as do the standards for inter-operability across providers' systems. These factors could be a constraint on the number of accounts that could be transferred in a reasonably short period of time, particularly where the systems for accounts transfer require account-by-account verification or manual processing. Portability is also subject to operational risk (e.g., erroneous data transfers).

a) Aspects to consider for the impact assessment of capital markets

- Transaction speed: With what frequency do participants in these markets transact? This may be short (e.g., hours or days) for activities such as market making and the execution of standardised trades or long (e.g., months) for activities such as securitisation, which entails a ramp up period, or for complex OTC derivatives trades
- Type and breadth of customer base: How large and how broad is the customer base? What is the profile of these customers and how does access to the financial services provided impact their business model? Would failure to provide these services result in contagion to other financial firms?
- Leverage of market participants: Markets will be more susceptible to disruption where firms are highly leveraged, as movements in market prices may force other participants to sell positions, further exacerbating the stress on other players.

b) Aspects to consider for the supply side analysis of capital markets

- Market dominance: a market where activity is highly concentrated in a few firms is more likely to exhibit a lower degree of substitutability.
 - How large is the share of the principal players?
 - How frequently do players change in terms of their ranking (e.g., league tables for primary markets and volume for secondary markets)?
- Portability of client business:
 - To what degree are services bundled for a given client segment?
 - To what degree are customer transactions highly customised?
 - To what extent is business activity relationship dependent?
- Capacity constraints of substitute firms:
 - Degree to which substitute firms' infrastructure varies;
 - Degree to which provision of financial activity requires highly specialised skills or infrastructure; relative scarcity of specialised resources;
 - Excess capacity of potential substitute firms;
 - Time frame required for substitute firms to deploy excess capacity;
 - Regulatory constraints that may impede entry of substitute firms or expansion of existing activity.

5.6 Shared financial services

Finance-related shared services involve the management of financial resources of the firm.

An indicative list is below.

Table: Finance-related shared services	
a) Treasury/ALM services	<ul style="list-style-type: none"> - Steering function for the treasury activity (management and monitoring risk appetite, operations steering, defining risk monitoring) - Collateral management, entity refinancing - Reporting function, regulatory liquidity ratios - Medium and long term funding programs, and refinancing of group entities - Refinancing, short term issues
b) Trading/Asset Management	<ul style="list-style-type: none"> - Operations processing: trade capture, life cycle management - Confirmation, settlement, payment - Position & counterparty management (data reporting, counterparty relationships)
c) Risk management and valuation	<ul style="list-style-type: none"> - Central risk management - Risk management teams, both business line and by risk type - Embedded risk managers - Risk report generation - Risk IT infrastructure and personnel, not covered elsewhere
d) Accounting	<ul style="list-style-type: none"> - Statutory reporting - Regulatory reporting - Valuation activities for market positions - Management reporting
e) Physical operations, such as cash handling	<ul style="list-style-type: none"> - Cash and coins - Paper- based processing

5.7 Operational shared services

Operational shared services do not involve financial resources, but provide the necessary infrastructure to enable the firm or parts of it to function. As such, they are not specific to a bank, but are found in non-financial firms as well. The similarity enables existing frameworks, e.g., those covering enterprise risk management or business continuity planning to be used in order to assess and ensure the availability of these functions in a crisis. However, assessment criteria might need to be extended, e.g., to cover legal or cross-border issues. An indicative list is below.

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Table: Operational shared services	
a) Human resources support	<ul style="list-style-type: none"> - Payroll - Staff administration (contracts) - Communication for human resources
b) Information technology	<p>Data storage and processing</p> <ul style="list-style-type: none"> - Other IT infrastructure, workstations, telecoms, servers, data centers and related services - Software licenses and application software source code base - Access to external providers (e.g., Bloomberg, stock exchanges) - Application maintenance (software application maintenance and related data flows, to be limited to corrective maintenance during the resolution period). - Report generation - User support - Disaster recovery solutions
c) Transaction processing	<ul style="list-style-type: none"> - Services provided on an intra-group basis, not already covered as a critical function - Legal transactional issues, such as anti-money laundering
d) Real estate provision or management	<ul style="list-style-type: none"> - Internal facilities management - Access control - Security - Real estate portfolio management
e) Legal services/ compliance	<ul style="list-style-type: none"> - Legal support - Business / transactional legal services - Compliance support, etc