COMPOSITIONAL ANALYSIS OF TRANSNATIONAL BANK CAPITAL

Abstract. Among the whole set of financial institutions that operate in the global financial market, multinational banks are in the lead. The purpose of the article is a scientific reflection on the classification features of the bank capital, its detailed description by way of the capital calculation and on this basis and the improvement of the compositional representation of the transnational bank capital.

The main classification features of the bank capital are systematized. The scientific analysis of the division of the bank capital depending on the method of calculation and critical description of its types, namely, balance, market, regulatory and economic capital is presented. The constituent elements of the regulatory capital according to Basel III and the main requirements according to Basel III regulatory capital standards are determined. It is proved that the concept of economic capital is aimed at determining the bank’s own capital, sufficient to cover not only expected but also unexpected risks, while the regulatory capital is intended to cover only expected risks. The economic capital, in contrast to the regulatory, covers a wider range of risks.

The component composition of the transnational bank capital is established and the differences between own, borrowed and mezzanine capital are substantiated. The classification of types of the transnational bank capital has been improved by allocating, in addition to existing ones, such classification features and types of capital as: by ownership (private, collective, state, international organizations, other states, legal entities of foreign states); by sources of formation (own, borrowed, borrowed, hybrid); by appointment (regulatory, economic, risk capital, canned, counter-cyclical, systemic); by the level of analysis (microeconomic, mesoeconomic, national, transnational, global); by engagement in banking activities (activated, immobilized, potential). The proposed classification allows to systematize the various types of the transnational bank capital and take into account the specifics of a particular type of the capital in the development of strategic and tactical measures of international expansion.

Keywords: bank capital, transnational capital, market equity, regulatory capital, economic capital, prudential capital, risk capital, counter-cyclical capital buffer.

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КОМПОЗИЦІЙНИЙ АНАЛІЗ ТРАНСНАЦІОНАЛЬНОГО БАНКІВСЬКОГО КАПІТАЛУ

Анотація. Систематизовано основні класифікаційні ознаки банківського капіталу. Здійснено науковий аналіз поділу банківського капіталу залежно від способу розрахунку і представлено критичну характеристику його видів, а саме балансового, ринкового, регулятивного та економічного капіталів. Установлено компонентний склад транснаціонального банківського капіталу та обґрунтовано відмінності між власним, позиченим та мезонінним капіталом. Запропоновано інтерпретацію композиційних складових ознак транснаціонального банківського капіталу за рахунок виділення, додатково до навичних, авторських класифікаційних ознак та видів капіталу. Це дозволить ураховувати специфіку того чи іншого виду капіталу при розробленні стратегічних і тактичних заходів міжнародної експансії банківського капіталу.

Ключові слова: банківський капітал, транснаціональний капітал, ринковий власний капітал, регулятивний капітал, економічний капітал, пруденційний капітал, ризиковий капітал, контрициклічний буфер капіталу.

Формула: 0; рис.: 0; табл.: 3; бібл.: 26.

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Анотация. Систематизированы основные классификационные признаки банковского капитала. Осуществлен научный анализ разделения банковского капитала в зависимости от способа расчета и представлена критическая характеристика его видов, а именно балансового, рыночного, регулятивного и экономического капитала. Определен компонентный состав транснационального банковского капитала и обоснованы различия между собственным, заемным и мезонинным капиталом. Предложена интерпретация композиционных составляющих признаков транснационального банковского капитала за счет выделения, дополнительно к существующим, авторским классификационным признакам и видам капитала. Это позволит учитывать специфику того или иного вида капитала при разработке стратегических и тактических мероприятий международной экспансии банковского капитала.

Ключевые слова: банковский капитал, транснациональный капитал, рыночный собственный капитал, регулятивный капитал, экономический капитал, пруденциальный капитал, рисковый капитал, контрициклический буфер капитала.

Формула: 0; рис.: 0; табл.: 3; бібл.: 26.

Introduction. Among the whole set of financial institutions that operate in the global financial market, multinational banks are in the lead. In the practical activity of banking institutions, including transnational banks, the volume and structure of capital are among the main indicators of their development and financial stability. Important factors that determine the structure of the capital of transnational banks are: regional affiliation; term of functioning; affiliation to the financial and industrial group; cost of funding source; available client base; the requirements of legislation and regulatory authorities as the country of the bank's deployment, and the countries of the presence of its subsidiaries. All this determines the multiplicity of forms and types of functioning of the transnational bank capital, which are in constant interconnection and interdependence.
Analysis of research and problem statement. Among the domestic scientists who are engaged in research of the problems of component composition decomposition and the systematization of types of the bank capital, the works of M. D. Alekseenko, O. D. Vovchak, L. L. Katrangi, K. P. Pankiv, K.F. Cherkashina deserve of special attention. At the same time, the profound theoretical research of the species diversity of the bank capital carried by Ukrainian scientists is not enough, what results in a different, sometimes contradictory, interpretation of the authors of certain types of the capital. Considering that the structure of the bank capital is complex, multi-variational and heterogeneous, this necessitates an in-depth study of its components, taking into account the peculiarities of their formation and functioning.

The purpose of the article is a scientific reflection on the classification features of the bank capital, its detailed description by way of the capital calculation and on this basis, the improvement of the compositional representation of the transnational bank capital.

Results of the research. Traditionally, the bank capital classifies, depending on the organizational form, on the share and equity capital [1, 2, 3]. In relation to the equity capital of the bank, the economic literature meets a certain unity of views of scientists-economists on its content; namely, scientists agree that it is a union of share contributions of business entities and other people for the conduct of a common monetary and credit activity. It should be noted that in the case of the creation of a cooperative bank, such an association is carried out on a voluntary basis on the principle of territoriality [4].

However, in relation to the content of the equity capital of the bank, the opinions of scientists may vary. Thus, E. Dolan and R. Campbell [5] determine the share capital of the bank as the value of the nominal value of all shares of the company being in circulation. Initially, the share capital of a bank is formed by issuing and placing shares. In the future, the increase in the share capital is possible due to the emission income, capitalization of part of profit, by additional issue of shares, etc. Therefore, some researchers [6, 7, 8, 9, 10] refer to the share capital of the bank's authorized capital, emission income, reserve capital and retained earnings. At the same time P. Rose [8] and J. Sinki [9] do not distinguish the issue income, but use the term "the additional capital" as a component of the bank's share capital.

Scientists V. V. Bocharov and Y. V. Leontiev [6], investigating the corporate finance, came to the conclusion that the equity of the corporation also includes the value of shares acquired by the corporation, while L. G. Batrakova [7] considers the long-term liabilities (long-term bills, bonds) in the share capital of the bank. This position is explained by the fact that the long-term debt issued by the issuance of the long-term bonds is taken into account when assessing the market value of the bank. Taking into account the wide range of interpretations of the content of the bank's share capital, we agree with M. D. Alekseenko [2], who treats this type of capital widely enough - as the equity capital of the bank, formed as a joint-stock company.

In our opinion, one can distinguish the most common signs of its division, namely: the form of investment, the sign of residence, the form of ownership, the source of education, the place of mobilization, the possibility of forecasting, the term of the bank's disposal and the nature of its use in banking activities. Let's dwell in more detail on the classification of the bank capital depending on the method of calculation, which distinguishes the balance, market, regulatory and economic banking capital [2]. Some unity of viewpoints between economists was achieved in terms of the interpretation of the essence of the bank's equity: the difference between the carrying value of assets and the carrying value of the bank's liabilities [11, 12, 8, 9, 13].

Like the balance sheet, the market equity of the bank is defined as the difference between the market value of assets and the market value of the bank liabilities [11, 8]. J. Sinki [9] draws attention to the fact that the market capital of the bank may exceed the balance capital by the amount of "hidden" bank capital, that is, the capital not recorded in the balance sheet. J. Sinki [9] also uses the definition of "the aggregate market capital of the bank". This type of the capital, in the opinion of the researcher, in addition to the financial capital also includes "the reputational" capital of the bank. The valuable assessment of this component of the bank capital depends on real
economic net worth, profitability, transparency of the bank's activities, level of trust in the instruments of state regulation of the banking system, etc.

Recently, the banking theory and practice have received a broad interpretation of the notion of "regulatory", "economic" and "counter-cyclical" capital. This was due to the introduction of a risk-oriented approach to managing the bank to ensure its financial sustainability. The emergence of the notion of "the regulatory capital" is taken to correlate with the adoption of Basel I (1988), while the concepts of "the economic" and "the counter-cyclical" capital – from Basel II (2004). In the writings of economists, there is often the identification of meaningful interpretations of the economic and regulatory capital, since both those and other capital are intended to cover risks. Therefore, the coverage of the economic essence of each of the above concepts makes it possible to clearly delimit their purpose in ensuring the financial stability of the bank.

The essence of the regulatory capital is that it is a tool for regulating the bank's activities (capital structure, ratio of assets, liabilities and risks), formalized as a norm of H1. In accordance with Basel II, the regulatory capital of the bank includes: fixed assets (the capital of level 1), which includes the basic and additional capital; the additional capital (the capital of level 2); the capital of level 3 (Table 1).

<table>
<thead>
<tr>
<th>Constituent elements of the regulatory capital according to Basel III</th>
<th>The capital of level 1</th>
<th>The capital of level 2</th>
<th>The capital of level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Components</td>
<td>Paid authorized capital</td>
<td>Long-term subordinated debt (up to 50% of tier one)</td>
<td>Short-term subordinated debt</td>
</tr>
<tr>
<td></td>
<td>Expanded reserves created from profits</td>
<td>Result of revaluation of fixed assets</td>
<td>Hybrid tools</td>
</tr>
<tr>
<td></td>
<td></td>
<td>General reserves</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unopened reserves</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unrealized gain revaluation of share pairs (45% of value)</td>
<td></td>
</tr>
<tr>
<td>Prevention</td>
<td>Goodwill</td>
<td>50% of investments in unconsolidated banking and financial subsidiaries</td>
<td>Miss</td>
</tr>
<tr>
<td></td>
<td>50% of investments in unconsolidated banking and financial subsidiaries</td>
<td>50% of investments in the capital of other banking and financial institutions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50% of investments in the capital of other banking and financial institutions</td>
<td>50% of investments in the capital of other banking and financial institutions</td>
<td></td>
</tr>
<tr>
<td>Limitation</td>
<td>Miss</td>
<td>Not more than 100% of the capital of level 1</td>
<td>Not more than 250% of the capital of level 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Only to cover market risk</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Optional level of capital</td>
</tr>
</tbody>
</table>

According to the Instruction on the Procedure of Regulating the Activity of Banks in Ukraine [15], the regulatory capital is one of the most important indicators of the bank's activity, the main purpose of which is to cover the negative effects of the various risks that banks assume during their activities, and to ensure the protection of deposits, financial stability and stable activity of banks. Consequently, the regulatory capital of a bank is a set of the basic (level 1) capital and the additional (level 2) capital.

Thus, in Ukraine, the capital of the level 3 is not allocated in the structure of the regulatory capital. On this occasion, it should be explained that the concept of "the capital of level 3" appears in the sixth amendment to the Basel Accord, adopted in 1996. This is due to the fact that the
regulatory capital was offered to be regarded as a source of coverage of the consequences of the realization of not only credit but also market risks, in particular, interest rate risk, equity risk, currency risk of commodity contracts, etc. According to Basel II, the capital of level 3 is a short-term subordinated debt. This type of capital should be allocated only if the bank assesses the market risks. Otherwise, the bank is not allowed to recognize the capital of level 3 and use it to compensate for credit risk. Consequently, the capital of level 3 was not an obligatory component of regulatory capital, unlike the capital of levels 1 and 2. In addition, according to Basel III, the allocation of the capital of level 3 was canceled (Table 2).

<table>
<thead>
<tr>
<th>Element</th>
<th>Current rules (Basel III)</th>
<th>New rules (Basel III)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum capital requirements</td>
<td>The basic equity capital of level 1 / risk level 2%</td>
<td>The basic equity capital of level 1 / risk level ≥4,5%</td>
</tr>
<tr>
<td></td>
<td>The capital of level 1 / risk level 4%</td>
<td>The capital of level 1 / risk level ≥6%</td>
</tr>
<tr>
<td></td>
<td>Total capital / Risk weight 8%</td>
<td>Total capital / Risk weight ≥8%</td>
</tr>
<tr>
<td>Innovative tools</td>
<td>Included in the capital of level 1 (no more than 15% of the capital level)</td>
<td>Gradual exclusion</td>
</tr>
<tr>
<td>Capital Level 3</td>
<td>Should not exceed 250% of the capital of level 1, intended to cover the market risks</td>
<td>Abolition</td>
</tr>
<tr>
<td>Limitation</td>
<td>The capital of level 2 ≤ the capital of level 1</td>
<td>Abolition</td>
</tr>
<tr>
<td></td>
<td>Subordinated debt ≤ 50% of the capital of level 1</td>
<td></td>
</tr>
<tr>
<td>Adjustment / deduction (except goodwill)</td>
<td>50% of the capital of level 1 and 50% of the capital of level 2</td>
<td>100% basic capital of level 1</td>
</tr>
<tr>
<td>Conservation buffer</td>
<td>Miss</td>
<td>2.5% of the value of the risk in addition to 4.5% of the level 1 of base level / risk value</td>
</tr>
<tr>
<td>Countercyclical buffer</td>
<td>Miss</td>
<td>0-2.5% of the value of the risks</td>
</tr>
</tbody>
</table>

The source: based on the material [16]

Due to the fact that fixed capital is considered unchangeable and non-transferable, redistributed and must fully cover current losses, and the additional capital is less permanent and its size is subject to changes, it is quite legitimate to consider the approach of K. S. Kireeva [17], who, according to the criterion of permanence, distinguishes between the core banking capital, the additional bank capital and the subordinated debt taken into account in the bank capital.

With the regards to the content of the economic capital, we note that in the writings of economists this type of capital is considered from different positions. Separate scholars [18, 19] believe that the economic capital represents the sum of the capitals required to cover a set of certain risks. At the same time, the size of the economic capital should not cover all possible losses of the bank from the realization of risks, but only those that have a high probability of implementation [20]. For example, K. F. Cherkashina interprets the economic capital as a concept that reflects the bank's policy on needs assessment and the formation of the required amount of the capital to cover risks incurred by the bank as a result of its activities and possible losses in order to maintain financial stability and competitiveness [21]. Reflecting on the fact that the economic capital may be as large and smaller than the volume of the regulatory capital, the researcher argues that if the economic capital is less than the regulatory one, then the banking institution carries out low-risk activities. The opposite situation means either greater riskiness of the bank's activity, or the inclusion of more risks or incurring unexpected losses.

Also in the economic literature there is an approach by which the economic capital is defined as the most reliable and sustainable component of the regulatory capital, through which it is possible to cover the certain set of risks and the result of their complex interaction. It is obvious that
in the structure of such a capital there are the most liquid assets, which allow to cover the unforeseen losses. Other scholars argue that, unlike the regulatory capital, the economic capital, in its composition, further contains intangible assets and hidden reserves and must be determined itself by the bank in the process of its functioning. Such a capital includes some risk assessments that do not have a formal measurement, such as business or strategic risks [22, c. 17–18] these are the equity investors in the bank, representing the sum of actual risk capital and thhe unamortised goodwill [13].

From the point of N. S. Voronova [23], opposed to the balance, market and regulatory capital, which may be characterized as certain funds or a set of certain sources, the economic capital is not. The last is the aggregate amount of quantitative estimates of unexpected losses from the implementation of certain banking risks in different business units of the bank. This approach is consistent with the definition of the Basel Committee on banking supervision, in which the economic capital is a method or practice that allows banks to consistently assess the risks and properties of the capital to cover the economic consequences of risky measures.

Thus, the economic capital is the required amount of the capital to absorb the unexpected bank losses over a certain period of time, measured at a given level of confidence probability. The size of the bank's economic capital shows what may be the need for the bank's own funds in the event of unexpected losses due to the implementation of banking risks (capital demand), while the size of the available domestic capital of the bank (regulatory capital) characterizes the supply of capital. Consequently, the concept of the economic capital is aimed at determining the amount of the equity capital of the bank sufficient to cover not only expected but also unexpected risks. The economic capital, in contrast to the regulatory, covers a wider range of risks. Such risks significantly affect the financial sustainability of the banking institution's activity, but they are not taken into account when determining the regulatory capital.

In our opinion the study of the concept of "risk capital" or "risk capital" of the bank is actual. From J. Sinki's position [9], the risk capital is regarded as a measure of the capital adequacy risk, a measure of crisis risk, which allows us to assess the probability of a bankruptcy of a banking institution. S. Frost [13] understands the risk capital part of the capital intended to cover identified losses before problems arise with bank insolvency. The researcher reveals the link between the economic capital and the risk capital of the bank, indicating that the economic capital is the actual risk capital, increased by non-depreciated goodwill. In addition, the academy adds that, according to individual commitments, the amount of the economic (including risk) capital may be either greater or less than the amount of the regulatory capital.

Also, in the economic literature, the concept of "the market-determined" or "the prudent capital", which is based on the definition of a "the market-determined capital adequacy ratio", is often found. [24]. In order to ensure that the capital is kept to a minimum it is necessary to cover the main risks during the period of financial stress, Basel III provides the creation and expansion of peculiar "safety pillows" - the buffer of conservation and the countercyclical capital buffer. Creating such buffers is an integral part of the bank's capital planning process and is carried out, at the discretion of the bank, by reducing the part of the profit that is directed towards the payment of dividends, the redemption of its own shares, bonus payments to staff or the attraction of the new capital from the private sector.

The requirement to create a counter-cyclical buffer (capital countercyclical buffer) is established with the aim of additional protection of the banking sector at a time when the growing problems of the financial system as a whole are likely to cause an economic recession in the real sector of the economy, which, in turn, leads to the occurrence of losses in banking sector. For system banks, a system capital buffer may also be provided.

Taking into account the different aspects of the bank capital regulation, K. S. Kireyeva [17] introduces such a feature of the classification of the bank capital as the
possibility of regulation, which distinguishes between the regulated bank capital and the uncontrolled bank capital. The regulated bank capital is the own funds of the bank participants, which can be increased or reduced as a result of changing requirements of regulators regarding the adequacy of the bank capital, their own strategic decisions of the bank. The non-regulated bank capital is the actual amounts specified in the balance sheet of the accounting plan for a certain date relating to the bank's capital [17, pp. 5–6].

G. G. Korobova draws attention to the definition of the concepts of "the gross capital" and "the net capital" of the bank. Academician equates the gross capital with the gross capital of a bank, while the net capital is net equity, while the gross capital represents the sum of valuations of the net capital and the immobilized bank capital [25]. In detail, the essence of the gross and net capital is opened by O. D. Vovchak [1], who interprets its own gross-gross-capital bank as the sum of all bank funds and retained earnings on a balance sheet basis. According to the researcher, net equity is the part of the bank's own funds that can be used as credit resources. Net equity is calculated as the gross capital net of bank investments in the economic activities of enterprises and organizations, shares of joint stock companies, costs of future periods, distorted funds.

When studying the component composition of the transnational bank capital, it is important to take into account the specifics of the transnational banks. It should be noted that the transnational banks have a rather complex organizational structure with various functional elements, hierarchy and interconnections, with differences in the national conditions of the functioning of individual representations that belong to the corporation. The practical experience of the functioning of transnational banks suggests that such institutions are actively using hybrid instruments for the formation of the bank capital: debt-property swaps, participatory loans, subordinated loans, preferred shares, convertible bonds, warrants, rights to participate in profits, etc. Capital, formed with the help of such instruments, in the economic literature is called the mezzanine capital. It is clear that this type of capital has characteristics of both own and borrowed capital.

The interest of transnational banks in using hybrid instruments for the formation of the bank capital is explained by the increased possibilities of using intrabank cash flows. In particular, the bank receives additional opportunities for obtaining income arising from differences in exchange rates, taxation and prudential restrictions in the countries and regions where the bank's offices are located. Uneven development of economies of different countries, regardless of their monetary, fiscal, policies, social priorities leads to the fact that at one and the same time in some parts of the corporation business is developing, free funds are formed, which are subject to effective placement, and in other countries and regions there may be financial difficulties in the Bank's subdivisions. The use of the internal financial resources of a transnational bank for intrabank cash flows is possible to compensate individual affiliate losses in the event of risks, both general and market, losses in support of the traditional range of banking services or the maintenance of unprofitable but necessary corporation’s representations.

Thus, the critical analysis of the economic nature of the constituents of the bank capital in general, and the transnational bank capital in particular, allows us to identify and classify the totality of its components, summarized in Table 3.

To summarize, we note that, based on the results of the conducted scientific analysis, it is necessary to improve the classification of types of the transnational bank capital by allocating, in addition to the existing, such classification features and types of capital as: in the form of ownership (private, collective, state, international organizations, other states, legal entities of foreign states); by sources of formation (own, borrowed, hybrid); by appointment (regulatory, economic, risk capital, canned, counter-cyclical, systemic); by the level of analysis (microeconomic, mesoeconomic, national, transnational, global); by engagement in banking activities (activated, immobilized, potential). The proposed classification allows to systematize the many types of the transnational bank capital and take into account the specifics of a particular type of the capital in the development of strategic and tactical measures of international expansion.
### Table 3

**Systematization of classification characteristics of the transnational bank capital**

<table>
<thead>
<tr>
<th>Systematization of classification</th>
<th>Varieties of the bank capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>By organizational and legal form of engagement</td>
<td>joint stock company; shareholder</td>
</tr>
<tr>
<td>By the form of placement</td>
<td>in cash; in material form; in the form of financial assets; in the form of intangible assets</td>
</tr>
<tr>
<td>By the form of ownership</td>
<td>private; collective; state; international organizations; other states; legal entities of foreign states</td>
</tr>
<tr>
<td>By sources of formation</td>
<td>own; involved; borrowed; hybrid</td>
</tr>
<tr>
<td>By way of evaluation</td>
<td>balance; market; gross capital; net capital</td>
</tr>
<tr>
<td>By appointment</td>
<td>regenerative; economic; risk capital; canned; counter-cyclical; systemic</td>
</tr>
<tr>
<td>By the period of stay at the disposal of the bank</td>
<td>constant; timely; to the question</td>
</tr>
<tr>
<td>By level of analysis</td>
<td>microeconomic; mesoeconomic; national</td>
</tr>
<tr>
<td>By involvement in banking activities</td>
<td>transnational; global</td>
</tr>
</tbody>
</table>

The source: author’s elaboration.

### Література


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