

I. Yaremko

Doctor of Economic Sciences, Full Professor,

N. Podolchak

Doctor of Economic Sciences, Full Professor

L. Pylypenko

Doctor of Economic Sciences, Associate Professor

O. Tyvonchuk

PhD in Economics, Associate Professor

Lviv Polytechnic National University

CONCEPTUAL MODEL OF ADAPTIVE BALANCE SHEET FORMAT OF CORPORATIONS IN POSTINDUSTRIAL ECONOMY

Abstract Financial reporting is one of the main tools for providing information to market agents about business performance and financial position of corporations. The current format of financial reporting envisaged by the international and national standardization systems and other mandatory documents limits the possibility of complete and objective representation of corporations' economic potential. The major deficiencies of the current format of financial reporting include the inability of faithful representation of intangible factors of corporations' economic potential, as well as ignoring capital obsolescence due to the high level of dynamism of economic development.

The article presents the conceptual and methodological approaches to address the above problems. The application of intellectual capital maintenance concept in financial reporting framework permits to formulate methodological guidelines for adequate representation of intangible component of corporation economic potential on the balance sheet. The methodological approaches to moral depreciation of fixed capital disclosure in financial reporting, based on the provisions of organic balance sheet theory, are substantiated.

Keywords: financial reporting, format of financial reporting, concepts of capital maintenance, economic potential of corporations, moral depreciation.

Formulation of the problem. Financial reporting is traditionally considered to be the main public formalized information tool for disclosing financial position and operating results of business entities. However, the format of public financial reporting being used in modern practice is not able to meet the information needs and demands of users,

especially regarding the identification of the long-term development potential of corporations.

The low level of reporting format consistency with business conditions in post-industrial economy is caused, primarily, by the theoretical and methodological limitations in representing the key factors generating economic benefits, among which the factors of intangible (information and intellectual) type play a determining role. Overall, in the last 8 years the market capitalization of the leading high-tech corporations has increased by 3–7 times (Apple Inc. – from 76.83 billion USD to 596.99 billion USD, Alphabet Inc. – from 95.31 billion USD to 514.92 billion USD, Facebook – from 56.13 billion USD to 326.36 billion USD), while this indicator for corporations of other sectors has the declining trend. The NASDAQ index of stock market, which specializes in high-technology stocks, even did not respond to the crisis of 2008. On the contrary, during 2008–2009 it increased by 4 %. Analysis of the market capitalization of the leading high-tech corporations (postindustrial type companies) has shown that almost 70–90 % of their value is formed by intangible factors, which aren't presented in the system of accounting and financial reporting. The reports also do not reflect the moral depreciation of fixed capital that is a substantial flaw in conditions of highly dynamic technology development and technological aging.

Nowadays the system of indicators of public financial reporting, the balance sheet, in particular, remains the only tool for information support,

which complies with the common principles of its formalization. However, the reporting format must be adjusted to the users' needs in order to restore confidence in reporting as an instrument of informing the public about financial position and performance of market entities. This requires substantial revision and improvement of methodological basis of its formation.

Analysis of recent research and publications. The issues of the theory and methodology of financial reporting of corporations and its adaptation to the current conditions of the economy have been studied in the works of many Ukrainian and foreign scientists. Significant contributions have been made by M. Bondar, O. Bradul, F. Butynets, Z. Hutsaylyuk, V. Zhuk, S. Zubilevych, L. Kindratska, H. Kireytsev, M. Koryahin, V. Kostyuchenko, J. Krupka, P. Kutsyk, S. Lehenchuk, L. Lovinska, N. Lokhanova, N. Malyuga V. Parkhomenko, O. Petruk, W. Sopko, P. Homyn, Y. Tsal-Tsalko, L. Chyzhevskaya, M. Chumachenko, V. Shevchuk and others. Methodological and organizational issues of financial reporting were the subject of dissertation study of such Ukrainian scientists as J. Ivakhiv, O. Korobko, V. Kulyk, T. Kucherenko, M. Luchko, A. Meysh, A. Ozeran, I. Sadovska, I. Semchuk, O. Kharlamova, J. Sheverya, V. Yudenko etc.

Fundamental theoretical principles of financial reporting were disclosed in the balance sheet theories – static (H. Simon), dynamic (E. Shmalenbach), organic (F. Schmidt) and econometric (P. Chompa). The existing problems in theory and methodology of financial reporting formation, analysis and verification were investigated by the following foreign scholars: N. Antill, J. Baetge, M. F. Van Breda, S. Di Piazza, R. Ecclez, V. Kovalyov, B. Lev, V. McKenzie, M. Matthews, V. Palić, M. Perera, Y. Sokolov, E. Hendriksen, K. Tsygankov.

Despite the considerable amount of research done into the corporate financial reporting development, the problem of its adequacy to current business conditions remains insufficiently investigated.

The purpose of the article is to substantiate the conceptual model of the balance sheet adaptive format, capable to satisfy the information needs of postindustrial companies' stakeholders.

Presentation of the main material. It would be reasonable to look at financial reporting as a model, which, through the abstraction of accounting and reporting methodology paradigm, reflects statics and dynamics of company's capital size and structure. Formal and informative presentation of the company's capital with the account of its components interrelation in financial reporting determines the reporting format.

The format of financial reporting is not just a list of items and their groups (sections) placed in different statements. It is a projection of capital accounting methodology on the requests of society for information. The results of the research [11] have proved that the conceptual model of the format of postindustrial corporations public financial reporting should be based on the emphasis of key criteria, dominating in users information requests (Fig. 1). Such substantiation, with the account of the subject of financial reporting, covers the concepts of capital preservation in its various forms (financial, physical and intellectual) and the theory (paradigm) of capital augmentation – accounting income concepts (accounting interpretation of capital increase from the standpoint of the owner, entity, residual equity, enterprise and fund theories). The theoretical basis of financial reporting format is formed, first of all, by the fundamental balance sheet theories (static, dynamic, organic and econometric) and content accounting theories (economic, sociological, ethical, institutional and others).

Development of the corporations' balance sheet format being relevant to post-industrial economy has been realized by improving the existing balance sheet formats with consideration of their shortcomings described above. The proposed format has been elaborated on the basis of the balance sheet format (Fig. 2), established by the National Regulation (Standard) of Accounting 1 "General Requirements for Financial Reporting" [3], which declares the compliance with the International Financial Reporting Standards. International Financial Reporting Standards, including IAS 1 "Presentation of Financial Statements" [9], do not contain direct descriptions of the balance sheet content. The standards determine only the information (line items) to be presented. So the domestic form of balance sheet has been taken as a basis.

Given the geopolitical circumstances, in particular The Ukraine–European Union Association Agreement and, in this regard, taken by the government commitment to harmonize legislation and regulations, improvement of the financial reporting format should be done with the consideration of EU regulations in this area. At present, the actual imperative that regulates the financial reporting format of the EU economic entities is Directive 2013/34/EU of 26 June 2013 [13]. This Directive implies two alternatives: the horizontal and vertical layout of the balance sheet. Since according to NR(S)A 1 the balance sheet has horizontal layout, the analysis of the balance sheet format according to Directive 2013/34/EU was also done by horizontal layout (Fig. 3).

The analysis of the balance sheet format in accordance with the Directive 2013/34/EU immediately draws attention to “unconventional”

position of unpaid capital. The discussions on the position of unpaid capital on the balance sheet have been carrying on for a long time. The unpaid capital of corporation, by its economic essence, is a shareholders’ receivable on the shares issued by the corporation. Perhaps it is due to this consideration that the item “Subscribed capital unpaid” is shown in assets side of the balance sheet regulated by the Directive 2013/34/EU. However, application of the method of gross representation of the balance of equity (share) capital, in our view, is unreasonable. Unlike other types of receivables arising from the assets and capital circulation, the shareholders’ debt is a short-received means of share capital. Such share capital has no productive energy, it exists only legally (formally), while economically (actually) it does not exist. Therefore, we consider that it would be correct to reflect unpaid capital as a regulator of subscribed capital in Liabilities of the balance sheet.

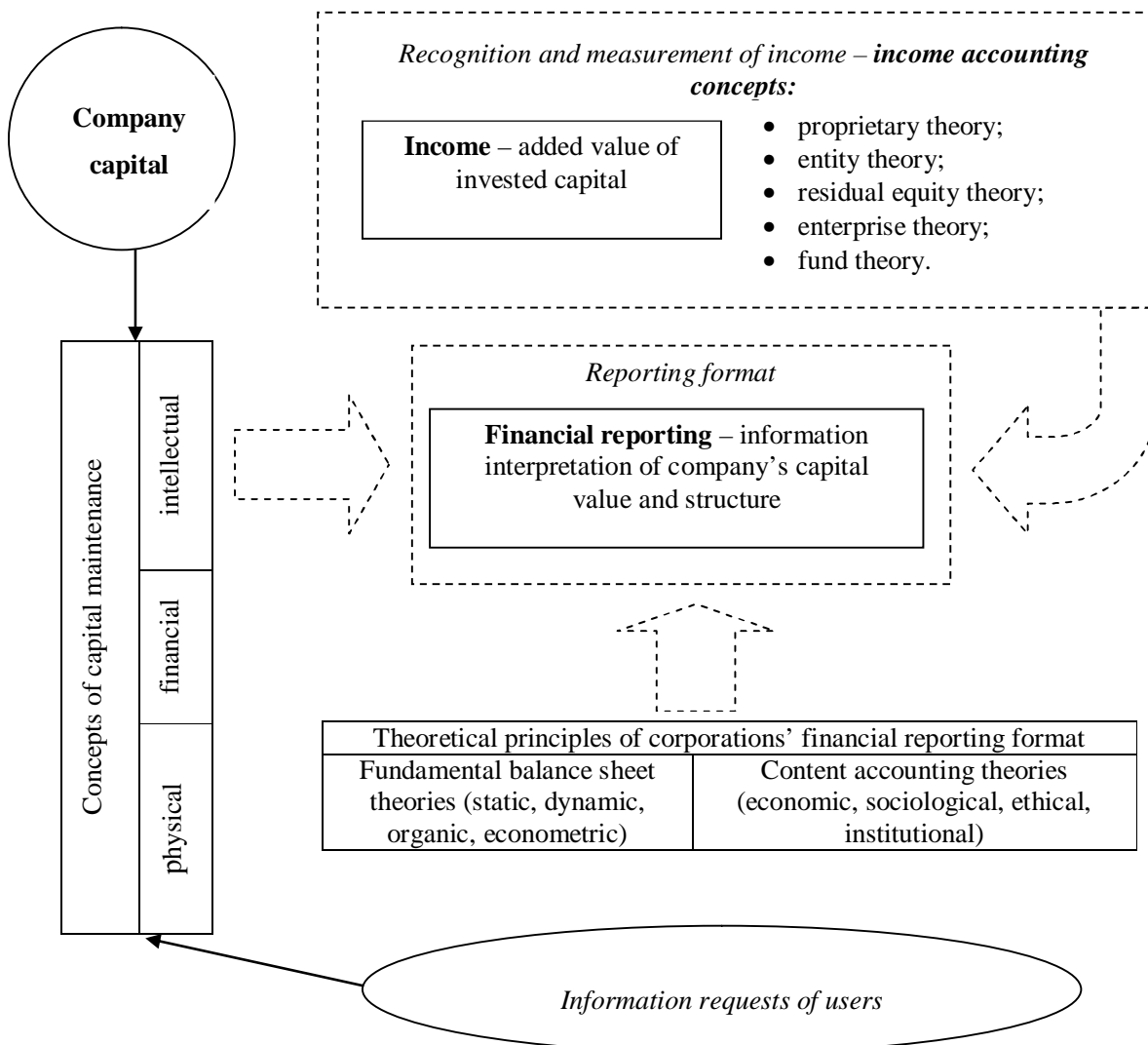


Fig. 1. Conceptual basis of financial reporting format of postindustrial corporations

BALANCE SHEET (Statement of financial position)	
Assets	Owners' equity and liabilities
I. Non-current assets	I. Owners' equity
Intangible assets	Registered (share) capital
Capital expenditures in progress	Revaluation capital
Property, plant and equipment	Additional paid-in capital
Investment properties	Reserve capital
Long-term biological assets	Retained earnings (Non-covered loss)
Long-term financial investments	Unpaid capital
Long-term receivables	Withdrawn capital
Deferred tax assets	II. Long-term liabilities and provisions
Other non-current assets	Deferred tax liabilities
II. Current assets	Long-term bank loans
Inventories	Other long-term liabilities
Current biological assets	Long-term provisions
Receivables for products, goods, works and services	Earmarked financing
Receivables for settlements	III. Current liabilities and provisions
Other current receivables	Short-term bank loans
Current financial investments	Current payables
Cash and cash equivalents	Current provisions
Prepaid expenses	Deferred revenues
Other current assets	Other current liabilities
III. Non-current assets held for sale and disposal groups	IV. Liabilities related to non-current assets held for sale and disposal groups
Total	Total

Fig. 2. The form of the balance sheet in compliance with National Regulation (Standard) of Accounting 1 "General Requirements for Financial Reporting"

Note: source [3]

BALANCE SHEET	
Assets	Capital, reserves and liabilities
A. Subscribed capital unpaid	A. Capital and reserves
B. Formation expenses	I. Subscribed capital
C. Fixed assets	II. Share premium account
I. Intangible assets	III. Revaluation reserve
II. Tangible assets	IV. Reserves
III. Financial assets	V. Profit or loss brought forward
D. Current assets	VI. Profit or loss for the financial year
I. Stocks	B. Provisions
II. Debtors	C. Creditors
III. Investments	D. Accruals and deferred income
IV. Cash at bank and in hand	
E. Prepayments and accrued income	Balance sheet total
Balance sheet total	

Fig. 3. Horizontal layout of the balance sheet in accordance with the Directive 2013/34/EU

Note: source [13]

One more drawback of the balance sheet form in accordance with the Directive 2013/34/EU is the absence of liabilities' separation by their maturities that complicates the analysis of the balance sheet liquidity and corporation solvency.

The advantage of this balance sheet is the possibility to recognize intangible assets created by the entity itself, provided that the national law permits such an opportunity. However, the principles for recognition and measurement of internally generated intangible assets remain unclear.

Directive 2013/34/EU actually contains only a description of the financial statements and certain concepts of their presentation and disclosure, but does not reveal integrated methodology for their preparation and therefore has fragmentary content. In particular, this Directive does not solve the abovementioned important problems of capital objective representation in financial reporting:

– concerning intellectual potential – under the current balance sheet format there can be proposed two options of reflecting intellectual potential: 1) to reflect it only in Assets side of the balance sheet in “Intangible assets” item line at historical cost, but in this case, the balance sheet total would be underestimated; 2) to present it in Assets in “Intangible assets” item line at the market (fair) value and in Liabilities with revaluation surplus in the line “Revaluation reserve”. Yet in this case the level of informativeness of “Revaluation reserve” item regarding risk analysis would be significantly reduced (for this item it is also necessary to present revaluation reserves for non-current tangible assets as well as for intangible assets and financial instruments);

– concerning methodological dualism in assets and capital assessment – Directive 2013/34/EU provides for the possibility of applying the accounting technique of revaluation does not solve the problem because the indexation (which is the most common method of revaluation) is aimed only at eliminating the effects of inflation, but it could not ensure the reproduction of company assets and capital, capital preservation in all its forms with the account of physical and moral depreciation of assets.

All these limitations have been considered while developing the adaptive balance sheet format of corporation (Fig. 4).

The proposed format of the balance sheet of the corporation has several fundamental characteristics different from other types of structural constructions, in particular:

1) all the capital, which, from the corporate and legal standpoint, belongs to shareholders, is grouped in the section “Shareholders’ capital”. Besides the direct contributions of the shareholders (total nominal value of shares – shareholders (subscribed) capital, adjusted for shareholders’ debt and the value of withdrawn shares), it includes components of the corporation’s equity not subject to distribution, namely, additional capital (formed as share premium, revaluation of assets in accounting procedures of physical capital preservation, revaluation of financial assets and liabilities in hedging transactions etc.), reserves of capital (reserve capital formed in accordance with the statutory and mandatory requirements and accounting reserves for the shareholders’ capital insurance), intellectual capital, as well as the component that can be distributed among the shareholders – income capital – retained earnings of the previous periods and the earned income of the reporting period;

2) although it is not quite clearly visible from the layout of the balance sheet, but proposed format is built on the fundamental dualistic approach to financial and physical capital maintenance. The overall change of the section “Shareholders’ capital” total amount reflects its augmentation for the reporting period that actually represents the total economic income of the corporation (excluding payments to the shareholders). However, only a part of it is subject to a possible distribution among shareholders. This is income capital and, in exceptional circumstances (the lack of income capital for dividends on preferred shares payment), reserve capital;

3) 3) along with financial and physical components, it contains a representation of intellectual component of the corporation economic potential in accordance with the concept of intellectual capital maintenance. Such representation implies the reflection of intellectual assets in the Assets side of the balance sheet at fair (market) value, and in Liabilities in section “Shareholders’ capital” there is presented intellectual capital according to the methodological principles described in [11];

BALANCE SHEET OF CORPORATION	
Assets	Capital, reserves and liabilities
<p style="text-align: center;">I. Non-current assets</p> Intellectual assets Property, plant and equipment Investment property Capital expenditures in progress Long-term biological assets Long-term financial investments Long-term receivables Deferred tax assets Other non-current assets	<p style="text-align: center;">I. Shareholders' capital</p> Subscribed capital Unpaid capital Withdrawn capital Additional capital Reserve of capital, including – <i>Reserve for moral (technological) depreciation of fixed capital</i> Reserve capital Income capital Intellectual capital
<p style="text-align: center;">II. Current assets</p> Inventories Current biological assets Receivables for products, goods, works and services Receivables for settlements Other current receivables Current financial investments <i>Cash and cash equivalents</i> Other current assets	<p style="text-align: center;">II. Long-term liabilities and provisions</p> Deferred tax liabilities Long-term bank loans Other long-term liabilities Long-term provisions Earmarked financing
<p style="text-align: center;">III. Prepaid expenses</p>	<p style="text-align: center;">III. Current liabilities and provisions</p> Short-term bank loans Current payables Current provisions Deferred revenues Other current liabilities
Total	Total

Fig. 4. The layout of the balance sheet of the corporation (own development)

Note: proposed by the authors

4) it takes into consideration such an important part of post-industrial corporations' assets as prepaid expenses. On the one hand, they serve as the foundation for the formation of corporation intellectual potential, on the other – it may contain “toxic” assets that would not yield economic benefits in the future. From the point of view of liquidity it is inappropriate to combine these assets with the current ones in one section of the balance sheet. However, they do not form the fixed capital in terms of economic return. Therefore, it is proposed to present these assets in a separate section.

The order of items of Assets and Liabilities sides in the balance sheet (in ascending order of liquidity level / descending order of maturity or vice versa) is not essential for the balance sheet analysis. Creditors are primarily interested in highly liquid assets for solvency assessment, while

investors in the post-industrial economy should first of all focus their attention on intangible components of assets and capital, which are the main factor in generating added value and economic benefits. The American practice of disclosure of financial information in reporting implies assets' layout in descending order of liquidity and liabilities' layout in ascending order of maturity. European accounting and reporting regulations mainly determine the reverse order of the assets and liabilities layout on the balance sheet.

Conclusions. The analysis of the content and origin of the deficiencies of current corporate financial reporting format have showed that their overcoming requires the development of conceptual and methodological approaches to accounting of capital. Following the results of the

analysis, we proposed to supplement the generally accepted theoretical basis of financial reporting with some provisions of the organic balance sheet theory adapted to current business conditions, including reproduction value approach to capital evaluation. The proposed adaptation of the approach to the reproductive value measurement in conditions of post-industrial economy involves the formation of reserves on the balance sheets of corporations for moral (technological) depreciation of fixed assets. This will enable to create protective accounting mechanisms against fixed capital impairment caused not only by inflation, but also mainly by its moral depreciation. This also contributes to a more objective characteristic of share capital of corporations in their general purpose financial statements. Applying the concept of intellectual capital maintenance in the conceptual and theoretical basis of financial reporting enables complete representation of intangible (intellectual and information) component of corporations' economic potential.

Thus, by introducing intellectual capital maintenance concept and reproductive value approach to the assets evaluation into the accounting and reporting methodology balance sheet format it was proposed to supplement Assets side of the balance sheet with the item "Intellectual assets" and Liabilities – with the items "Intellectual capital" and "Reserve for moral (technological) depreciation of fixed capital". The inclusion of these items does not just complement the reporting format, but also improves fundamentally its representative capacity, allows reducing the gap between the book and market value of corporations' capital.

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