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## **EVOLUTION OF ACCOUNTING FOR INTANGIBLE ASSETS AND ITS TRANSFORMATION TO INTERNATIONAL REQUIREMENTS**

**Abstract.** The evolution of accounting accounts in terms of accounting for intangible assets and related objects is considered in the article, as well as approaches to its construction to accurately reflect these objects in financial and management reporting, taking into account current trends in economic development are improved. The urgency of solving the scientific problem is that now there is a need to develop a new methodology for accounting for intangible assets and related objects. This is due to the significant differences between the book and market values of enterprises, due to the imperfection of the classification of intangible assets and related items, their recognition, measurement, accounting and financial reporting.

Methodological means of the research are methods of scientific abstraction, historical, modeling, analysis of the content of normative documents, comparison, grouping, abstract-logical method.

It is emphasized that the Global Monitoring of Intangible Finance, which shows the market value of the world's leading companies, indicates a significant share of the intangible component in the value of companies and their lack of disclosure in accounting. It is noted that special attention should be paid to the reflection of intangible assets and related objects in the Ukrainian Chart of Accounts, which should ensure the unity of the accounting information system of each entity, as well as be the basis for consistency of accounting indicators in the financial reporting, on the basis of which statistical indicators are formed. The study of the history of intangible assets and related objects in the Chart of Accounts, which have been in force since 1959 to date, made it possible to note the changes that have occurred, to identify factors that influenced their evolution, to identify shortcomings in accounting, outline and analyze the current state and assess the development of this category for the future. It is noted that the account on which goodwill is kept has undergone the greatest transformation since 1993. It is noted that the separation of intangible assets for inclusion in the Chart of Accounts is carried out taking into account international, European and Ukrainian standards of expert evaluation and accounting.

The necessity of separating a sub-account for accounting directly with software with the introduction of a sub-account for accounting firmware for software devices is substantiated. The need to separate current intangible assets on a separate account is revealed. The need to keep records of internal goodwill is noted, which will allow to identify the strengths of the company during its current activities, as well as to disclose them when selling, if necessary. It is recommended to open analytical accounts for accounting of internal goodwill on which intellectual assets are grouped by their types (human assets, personal internal goodwill of the head, client assets,

intangible assets related to contracts, organizational assets, social assets, environmental assets).

**Keywords:** intangible assets (IAS), goodwill, intellectual capital, accounting accounts, financial accounting, management accounting.

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## **ЕВОЛЮЦІЯ ОБЛІКУ НЕМАТЕРІАЛЬНИХ АКТИВІВ І ЙОГО ТРАНСФОРМАЦІЯ ДО МІЖНАРОДНИХ ВИМОГ**

**Анотація.** Розглянуто еволюцію рахунків бухгалтерського обліку в частині обліку нематеріальних активів і об'єктів, пов'язаних з ними, удосконалено підходи до його побудови для достовірного відображення цих об'єктів у фінансовій та управлінській звітності з урахуванням сучасних тенденції розвитку економіки. Актуальність розв'язання наукової проблеми полягає в тому, що нині є потреба у розробленні нової методології обліку нематеріальних активів і об'єктів, пов'язаних з ними. Це пов'язано з наявністю значних відмінностей між балансовою і ринковою вартостями підприємств, що зумовлене недосконалістю класифікації нематеріальних активів і об'єктів, пов'язаних з ними, їхнім визнанням, оцінкою, відображенням на рахунках і у фінансовій звітності.

Методологічними засобами проведеного дослідження є методи наукової абстракції, історичний, моделювання, аналіз змісту нормативних документів, порівняння, групування, абстрактно-логічний метод.

Наголошено, що Глобальний моніторинг нематеріальних фінансів, який демонструє ринкову вартість провідних підприємств світу, вказує на значну питому вагу нематеріальної складової у вартості компаній і їхню недостатню розкритість в обліку. Зазначено, що особливу увагу необхідно приділяти відображенню нематеріальних активів і об'єктів, пов'язаних із ними, в українському Плані рахунків бухгалтерського обліку, який повинен забезпечувати єдність облікової інформаційної системи кожного суб'єкта господарювання, а також одночасно бути основою щодо узгодженості облікових показників у фінансовій звітності, на основі якої формуються статистичні показники. Вивчення історії розвитку нематеріальних активів і об'єктів, пов'язаних з ними, у Планах рахунків бухгалтерського обліку, що діяли з 1959 року донині, дало змогу відмітити зміни, які відбулися, виявити фактори, що вплинули на їхню еволюцію, установити недоліки при відображенні в обліку, окреслити й проаналізувати сучасний стан і дати оцінку розвитку цієї категорії на майбутнє. Відмічено, що найбільшій трансформації з 1993 року зазнав рахунок, на якому ведеться облік гудвілу. Зазначено, що виокремлення об'єктів нематеріальних активів для

включення їх у План рахунків бухгалтерського обліку України здійснено з урахуванням міжнародних, європейських та українських стандартів експертної оцінки й обліку.

Обґрунтовано необхідність виокремлення субрахунку для обліку безпосередньо програмного забезпечення із введенням субрахунку для обліку програмних прошивок для програмних пристроїв. Розкрито доцільність виокремлення на окремому рахунку поточних нематеріальних активів. Зазначено необхідність ведення обліку внутрішнього гудвілу, що дасть змогу визначити сильні сторони компанії під час її поточної діяльності, а також розкрити їх при продажу, за потреби. Рекомендовано для обліку внутрішнього гудвілу використовувати аналітичні рахунки, на яких згруповано інтелектуальні активи за їхніми видами (людські активи, персональний внутрішній гудвіл керівника, клієнтські активи, нематеріальні активи, пов'язані з контрактами, організаційні активи, соціальні активи, екологічні активи).

**Ключові слова:** нематеріальні активи (НМА), гудвіл, інтелектуальний капітал, рахунки бухгалтерського обліку, фінансовий облік, управлінський облік.

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**Introduction.** The main feature of intangible assets (hereinafter — IAS) is that they have no tangible component. On the one hand, they give the owner of the business the right to use a wide range of resources (intellectual, material, natural, economic privileges) for the intended purposes and at the same time restrict access to these resources to other market participants. The specificity of intangible assets as an object of accounting introduces certain difficulties regarding the recognition and measurement of these assets, other differences that exist in international and Ukrainian standards of accounting and measurement. Accordingly, this state of affairs affects the reliability of the presentation of intangible assets in the financial statements and the determination of the fair value of the company. Therefore, nowadays relevant research is aimed at improving the accuracy of accounting information about intangible assets, which is possible provided that the methodology is agreed and organized. According to Ukrainian and foreign economists, intangible assets today play a significant role in shaping the value of the enterprise. In turn, this requires an in-depth study of the order of their reflection in the account, the formation of quality information support for effective use in the economic activity of the enterprise.

**Analysis of research and problem statement.** Various aspects of accounting for intangible assets and methodological issues for the development of their objective accounting are the subject of scientific research of many scientists.

In particular, differences in accounting for intangible assets in different countries and international accounting practice were explained by Khudaykulov Amir [1]. Similar studies were conducted by Munteanu Victor, Zuca Marilena, Țiņță Alice in the context of identifying national characteristics in the methodology and organization of accounting for intangible assets [2]. Also Ashoka M., Nanjundaswamy Abhishek, Divyashree M. identified the benefits of accounting for intangible assets according to international accounting standards [3].

Rizaev N. K., Temirkhanova M. J., Li Shaomin explained the need to transform the accounting of intangible assets in a pandemic COVID-19 [4], due to the manifestation of significant socio-economic challenges. Barker Richard, Penman Stephen, Teixeira Alan identified a list of problematic aspects in the accounting of intangible assets and identified the main directions of their elimination [5]. The study systematizes the shortcomings and challenges in the field of accounting for intangible assets, but does not offer effective methods to improve accounting practices.

Instead, Stewart David, Morgan Nei explained the variable influence of the company's marketing strategy on the formation of the intangible value of the company and the peculiarities of accounting for intangible assets [6]. Analytical accounting of goodwill as an element of intangible assets in terms of opening sub-accounts with the distinction between internal and external goodwill was studied by Zadorozhnyi Z.-M., Sudyn Y., Muravskiy V. [7]. Legenchuk S., Iskorostenska S. proposed to reflect in off-balance sheet accounting the value of real material carriers of intellectual property rights [8]. Accounting for the amortization of intangible assets was studied by Black Ervin, Zyla Mark [9]. The research of Labunska S., Serikova T., Sobakar M. is revolutionary, which

explained the influence of cryptocurrency development on the formation of value added in intangible form and formed the requirements for accounting and valuation of intangible objects [10].

Ajao Owolabi, Theophilus Aguguum explained the price paradox of intangible assets by improving the system of their accounting valuation and reflection in accounting [11]. Aralova Nataliia investigated the process of formation of intangible assets of state-owned institutions, which requires specific methods of valuation of intangible assets [12]. Similar studies, but for public enterprises conducted by Kanapickiene Rasa [13]. The most complete process of valuation of intangible objects was studied by Fomina O., Avhustova O., Shushakova I. in terms of all possible methods and methods of valuation [14].

However, such studies are episodic, do not explain the historical genesis of the concept of intangible assets from the standpoint of accounting, omit the evolutionary development of methods of accounting for intangible assets, which actualizes the purpose of the article.

**The aim of the article** is to study the evolution of accounting for intangible assets and related assets, improve and develop approaches to its construction to accurately reflect these objects in financial and management reporting, taking into account international standards of valuation and accounting and current economic trends.

**Research methodology and methods.** The methodological means of the research are the scientific abstraction method and the historical method — to study the evolution of intangible assets and objects associated with them; modeling method — to display the transformed chart of accounts of Ukraine; the method of the regulatory documents content analysis — to study and improve the accounting of intangible assets and related items. At all stages of the study, methods of comparison and grouping were used, and at the final stage, an abstract-logical method was used to form the conclusions of the study.

**Research results.** Improvement of the socio-economic realities of enterprises is the reason for the evolutionary increase in the value of intangible assets of business. The share of intangible assets in the ownership of enterprises has been growing since 1975. As of 1995, the share of intangible assets of economic entities exceeded the value of their tangible assets for the first time. Most companies that own intangible assets show an annual increase in market value. It should be noted that regardless of the value of intangible assets, their presence in the ownership of the company leads to an increase in the market capitalization of the business (Fig. 1).

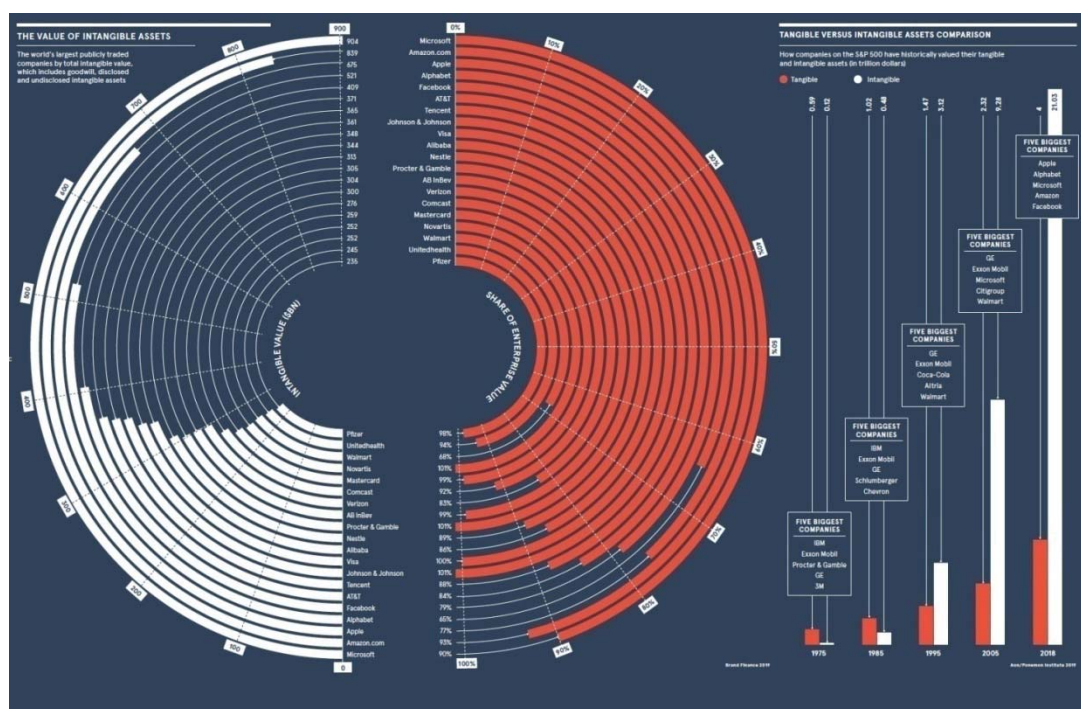


Fig. 1. Market value of companies and their intangible assets

Source. [15].

However, the presented statistical information of balance sheet indicators does not fully meet the requirements of managers to determine the true position of the financial condition of enterprises. According to the results of the global monitoring of intangible finance in 2020, the 100 most expensive companies in the world with a high value of the intangible component are identified, which are given in *Table 1* [16]. Global Intangible Finance Monitoring (GIFT™) shows the global value of enterprises by absolute and relative distribution, with the definition of the intangible component in the form of disclosed intangible assets, disclosed goodwill, undisclosed value).

Table 1

**Top 10 companies by total intangible value**

2020 Rank	2019 Rank	Company	Sector	Total Intangible Value (USD bln)	Total Intangible Value/ Enterprise (%)	Tangible Net Asset Value (USD bln)	Net Disclosed Tangibles (USD bln)	Disclosed Goodwill (USD bln)	Undisclosed Intangibles Value (USD bln)	Enterprise Value (USD bln)
1	3	Apple	Technology & IT	\$2,151	94%	\$144	\$0	\$0	\$2,151	\$2,295
2	2	Amazon	Internet & Software	\$1,694	96%	\$78	\$0	\$15	\$1,679	\$1,772
3	-	Saudi Aramco	Oil & Gas	\$1,651	84%	\$325	\$18	\$27	\$1,606	\$1,976
4	1	Microsoft	Internet & Software	\$1,598	93%	\$122	\$7	\$43	\$1,547	\$1,720
5	4	Alphabet	Internet & Software	\$838	74%	\$290	\$2	\$21	\$815	\$1,128
6	5	Facebook	Internet & Software	\$704	84%	\$138	\$1	\$19	\$684	\$842
7	10	Alibaba	Internet & Software	\$693	86%	\$113	\$8	\$39	\$646	\$806
8	7	Tencent	Internet & Software	\$610	90%	\$70	\$6	\$13	\$591	\$680
9	-	Tesla	Automobiles	\$433	96%	\$18	\$0	\$0	\$433	\$451
10	9	Visa	Banking	\$427	100%	\$0	\$27	\$16	\$384	\$427

Source. [16].

Such an indicator as the total intangible value of the enterprise in the first ten companies of this rating ranges from 2151 to 427 billion USD, which is respectively from 100 to 74%. Net disclosed intangible assets of the Top 10 companies were recorded in the amount of 27 to 1 billion USD, undisclosed intangible assets from 2151 to 384 billion USD [16]. This generally indicates high levels of the intangible component in the value of companies and a significant portion of their undisclosed intangible value. This situation became possible due to the imperfection of the methodology of accounting for intangible assets, which has not undergone significant evolutionary changes since the last century.

Therefore, there is a need to study the evolutionary development of methods of accounting for objects of intangible origin with the development of proposals for the progressive improvement of accounting accounts and reporting forms. Accounts as an element of the accounting method are an integral part and information source of the accounting system. They provide a grouping of economically homogeneous objects of accounting for their reflection in accounting and financial reporting. Particular attention should be paid to the inclusion of intangible assets and related items in the Chart of Accounts. The chart of accounts should ensure the unity of the accounting information system of each entity, as well as be the basis for the consistency of accounting indicators in the financial statements, on the basis of which statistical indicators are formed. The statistical information formed on the basis of objective indicators of the financial reporting allows to

analyze the development of the economy, to notice the positive and negative tendencies, to outline the ways of further strategies at the state level.

The development of the Chart of Accounts is a complex task that takes into account a number of tasks that are revealed through a set of optimal list and systematization of accounts, the possibility of their aggregation and transformation as needed, providing internal and external users with the necessary information, management needs and more.

The display of IAS and related items in the Ukrainian Chart of Accounts has a long history of development. The study of the history of any object of accounting allows to identify the factors that influenced their evolution, to identify errors and shortcomings in the reflection in accounting, to outline and analyze the current state and assess the development of this category in the future to improve accounting.

The plans of the accounts, which were operating from 1959 to 2000 and the accounts reflecting intangible assets and objects related to them are given in *Table 2*.

Table 2

**Display of intangible assets and related assets in the accounts of the USSR and Ukraine (1959—2000)**

Name of the Chart of Accounts	Document confirming the entry into force of the Chart of Accounts	Intangible assets and related items
Chart of accounts of production and economic activities of enterprises, constructions and economic organizations (in relation to production associations and industrial enterprises)	Letter of the Ministry of Finance of the USSR № 295 of September 28, 1959	Account 37 «Research and development documentation (development) to be implemented». Account 88 «Fund of research and development documentation (development) to be implemented»
Chart of accounts of production and economic activities of associations, enterprises and organizations	Order of the Ministry of Finance of the USSR № 40 of March 28, 1985	There are no intangible assets
Changes to the Chart of Accounts for production and economic activities of associations, enterprises and organizations № 40 of March 28, 1985	On the application of the Regulations on the organization of accounting and reporting in Ukraine, approved by the resolution of the Cabinet of Ministers № 250 of 3.04.1993 Guidelines for the organization of accounting in Ukraine, approved by the order of the MOF № 25 of May 7, 1993.	Account 02 «Depreciation (amortization) of property» and sub-account «Depreciation of intangible assets». Account 04 Intangible assets». Account 88 «Special purpose funds», sub-account «Profit fund used for capital investments and acquisition of intangible assets»

Source: formed by the authors on the basis of Chart of Accounts.

At the time when Ukraine was part of the Soviet Union, accounting was ensured by a single chart of accounts for all sectors of the economy, approved by the Ministry of Finance of the USSR № 295 of September 28, 1959. This Chart of Accounts does not disclose the category of «intangible assets» in its current understanding. However, we have identified account 37 «Research and development documentation (development) to be implemented», which in essence reflects the accounting objects that can be considered as intangible assets. The source of coverage of such developments was the fund, the funds of which were accumulated on account 88 «Fund of research and development documentation (development) to be implemented».

At that time, the accounting system at enterprises was built taking into account the principles of planned economy, one of the prerequisites for the functioning of which was the formation of the state of the relevant funds, through which the company carried out its activities. One of the funds that was aimed at the development of scientific and technological progress of the country was the Unified Fund for the Development of Science and Technology. It was formed at the expense of deductions from the planned profit of research and production, production associations (enterprises) according to the norms established by the state. He was also sent part of the additional profit (the amount of surcharges to the wholesale price) from the sale of new high-performance products and

products with the state quality mark. The funds of the unified fund for the development of science and technology were to some extent transferred to large production and research and production associations (enterprises) to finance the activities of enterprises for the development of science and technology provided for in the plan. At the expense of the fund were planned and additional costs for research, development, experimental work related to the development of production and its improvement, including the development of production of new and modernized products, testing it for consumers, with introduction of new technological processes, etc. Business transactions for the formation, transfer and receipt of funds of the single fund for the development of science and technology were reflected in the accounts: diversionary funds, internal settlements, economic incentive funds and special purpose and current account [17, p. 359].

Subsequently, a new Chart of Accounts for production and economic activities of associations, enterprises and organizations was approved by the order of the Ministry of Finance of the USSR of March 28, 1985 № 40, which did not contain such an object of accounting, which could be classified as intangible assets (see *Table 2*).

Later, after the proclamation of Ukraine's independence in 1991, the process of formation of domestic accounting began, which also influenced the development of intangible assets and objects related to them. The first normative document from the date of proclamation of independence of Ukraine, which disclosed amendments to the Chart of Accounts of production and economic activities of associations, enterprises and organizations from 28.03.1985 № 40, which disclosed the accounting of intangible assets and objects related to them, was the Regulation on the organization of accounting and reporting in Ukraine, approved by the Cabinet of Ministers № 250 of 3.04.1993 (hereinafter - the Regulation № 250). Guidelines for the organization of accounting in Ukraine, approved by the order of the MOF № 25 of 7.05.1993 (hereinafter — Guidelines № 25) were developed to the Regulation № 250.

Regulation № 250 stated the composition of intangible assets (see *Table 2*) and stated that they are reflected in the balance sheet in the amount of costs for their acquisition and bringing them to a condition in which they are suitable for use in accordance with the intended purpose. It stated that the cost of IAS should be repaid monthly by depreciation based on their original cost and useful life, but not more than ten years or the life of the enterprise. Depreciation was not accrued on know-how, goodwill, marks for goods and services, etc., the value of which does not decrease in the process of their use. IAS depreciation should have been reported separately.

Guidelines № 25 stated that IAS should be accounted for in account 04 «Intangible assets» at cost, which consists of the actual cost of acquisition and bringing them to the condition in which they are suitable for use for the intended purpose. In the case of gratuitous receipt of intangible assets, the transaction was reflected on the debit of account 04 «Intangible assets» and the credit of account 88 «Special purpose funds», using the sub-account «Fund of free property». Also according to the rules of these Guidelines, the profit used after spending depreciation deductions from IAS on the acquisition of intangible assets, should be shown by debiting account 81 «Use of profits» and credit account 88 «Special purpose funds» using the sub-account «Profit fund used for capital investments and acquisition of intangible assets». The amount of accrued depreciation (amortization) had to be reflected on the debit of the accounts of production costs (turnover) and credit of account 02 «Depreciation (amortization) of property», sub-account «Depreciation of intangible assets». The preservation of fund accounts in accounting after the collapse of the USSR is associated with a long period of accounting according to the rules of the planned economy.

In Guidelines № 25 on the organization of accounting in Ukraine, it was recommended to keep analytical records of intangible assets by the following types: copyright, land use rights, rights to carry out certain activities, computer software, etc.

The chart of accounts for production and economic activities of associations, enterprises and organizations of March 28, 1985 № 40 as amended in accordance with Regulation № 250 and Guidelines № 25 on the organization of accounting in Ukraine was in force until its introduction in 2000. Chart of accounts for accounting of assets, capital, liabilities and business operations of enterprises and organizations and Instructions to it. The new Chart of Accounts was developed in accordance with domestic Accounting regulations (standards) including Accounting regulations

(standards) 8 «Intangible Assets», which did not contradict international accounting standards. This Chart of Accounts already includes intangible assets by type and goodwill. It has changed in terms of intangible assets and related assets over 20 years (*Table 3*).

Table 3

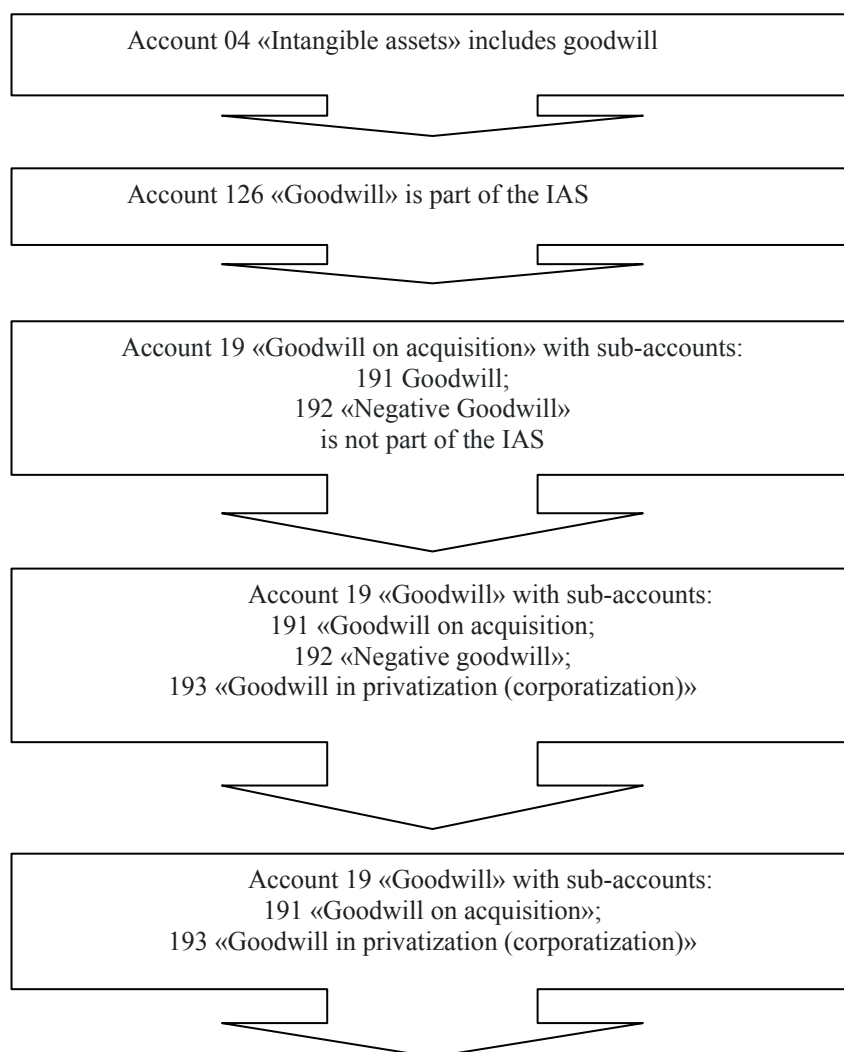
**Evolution of the Chart of Accounts for accounting of assets, capital, liabilities and business operations of enterprises and organizations of Ukraine in terms of IAS and related objects**

Date of approval or amendment	Accounts and corresponding sub-accounts
MOF Order of November 30, 1999 № 291 (first edition of the Chart of Accounts)	Account 12 «Intangible assets» with sub-accounts: 121 «Rights to use natural resources» 122 «Rights to use property» 123 «Rights to marks for goods and services» 124 «Rights to industrial property» 125 «Copyright and related rights» 126 «Goodwill» 127 «Other intangible assets» Account 13 «Depreciation of non-current assets» and sub-account to it 133 «Depreciation of intangible assets»
Order of the MOF of 09.12.2002 № 1012	Account 12 «Intangible assets» with sub-accounts: 121 «Rights to use natural resources» 122 «Rights to use property» 123 «Rights to marks for goods and services» 124 «Rights to industrial property» 125 «Copyright and related rights» 127 «Other intangible assets» Account 13 « <i>Depreciation (amortization) of non-current assets</i> » and sub-account 133 « <i>Accumulated amortization of intangible assets</i> » Account 19 « <i>Goodwill on acquisition</i> » with sub-accounts: 191 « <i>Goodwill</i> » 192 « <i>Negative Goodwill</i> »
Order of the MOF of 20.10.2005 № 717	Account 12 «Intangible assets» with sub-accounts: 121 «Rights to use natural resources» 122 «Rights to use property» 123 « <i>Rights to commercial designations</i> » 124 «Rights to industrial property» 125 « <i>Copyright and related rights</i> » 127 «Other intangible assets»
Order of the MOF of 19.12.2006 № 1213	Account 19 « <i>Goodwill</i> » with sub-accounts: 191 «Goodwill on acquisition» 192 «Negative Goodwill» 193 « <i>Goodwill in privatization (corporatization)</i> »
Order of the MOF of 14.10.2008 № 1238 (latest version of the Chart of Accounts and till now)	Account 12 «Intangible assets» with sub-accounts: 121 «Rights to use natural resources» 122 «Rights to use property» 123 «Rights to commercial designations» 124 «Rights to industrial property» 125 «Copyright and related rights» 127 «Other intangible assets» Account 13 «Depreciation (amortization) of non-current assets» 133 «Accumulated amortization of intangible assets» Account 19 « <i>Goodwill</i> » with sub-accounts: 191 «Goodwill on acquisition» 193 « <i>Goodwill in privatization (corporatization)</i> »

Italics indicate changes made to accounts and sub-accounts in accordance with the new MOF order.  
 Source: generated by the author based on [18].

*Table 3* shows that the main changes occurred in the names of accounts 123 «Rights to commercial designations» and 125 «Copyright and related rights». The account on which goodwill is kept has undergone the greatest transformation since 1993 (*Fig. 2*).





**Fig. 2. Evolutionary transformation of accounting accounts of Ukraine to reflect goodwill from 1993 to 2020**

*Source:* authors summarized based on the Chart of Accounts.

In the first edition of the Chart of Accounts for accounting of assets, capital, liabilities and business operations of enterprises and organizations of Ukraine, goodwill was part of intangible assets and was recorded in sub-account 126 «Goodwill». Subsequently, since 2002, this object has been separated from the IAS and it is recommended to account in a separate account 19 «Goodwill on acquisition», which is now called «Goodwill» and includes two sub-accounts. There was also a change in the title of sub-account 133 «Accumulated amortization of intangible assets», where the word «depreciation» was replaced by «accumulated amortization».

Thus, based on the above material, changes in the domestic Ukrainian accounting occurred in accordance with the requirements of the time and the changes that took place in world practice. The formation of the main provisions of domestic accounting after the declaration of independence of Ukraine developed in accordance with international accounting practice with the introduction of appropriate changes. During this period, new objects of intangible nature were identified in the Ukrainian accounting. Synthetic and analytical accounts for the accounting of intangible assets and related items have evolved. The development of intangible assets and related objects in accounting took place on the basis of the introduction into Ukrainian accounting practice of a number of legal documents, which have undergone significant changes during this period.

When studying the development of accounting in terms of separation of NMA objects for inclusion in the Chart of Accounts the requirements of the following major international, European and national standards of expert evaluation and accounting should be taken into account:

International Valuation Standards 2017 (International Valuation Standard) (IVS) 210 «Intangible assets») [19]; European Valuation Standards TEGoVA — 2003 (Recommendation 8 «Valuation of Intangible Assets») [20]; Professional valuation standards RICS-2017 (VPGA 6 «Valuation of intangible assets») [21]; National Standard 4 «Valuation of Intellectual Property Rights», approved by the Resolution of the Cabinet of Ministers of Ukraine № 1185 of 3.10.2007 [22]; IFRS (IAS) 38 «Intangible Assets» [23]; Accounting regulations (standards) «Intangible assets» [24]. A comparison of international and domestic regulations on the expert and accounting assessment of IAS, indicates different approaches to the separation of IAS objects. This situation requires a review of the approaches to the classification of IAS, their recognition, measurement, reflection in the accounts and in the financial statements.

Valuation of intangible assets is an important component of their value management, which, above all, should be carried out in order to determine the fair value of the company as a whole. Detection of IAS and related items that are not currently provided for in the accounting standards, but exist in the company, will allow to establish hidden reserves of activity and affect its value. In order to improve the accounting and management of intangible assets and related assets, IAS are identified that are not reflected in Accounting regulations (standards) 8 «Intangible Assets», but which should be valued by the company (see *Table 3*).

It should be noted that software, including computer programs, is one of the main components of IAS in the activities of economic entities, as it occupies a significant share in the structure of these assets.

Therefore, it is necessary to separate the sub-account to account directly for computer programs. The chart of accounts for account 12 «Intangible assets» lacks sub-account 126, which can be used to account for software (computer programs, the right to firmware for software devices) [25]. In Accounting regulations (standards) 8 «Intangible Assets» and Methodical recommendations on accounting of intangible assets № 1327, the group of copyright and related rights includes such IAS as programs for electronic computers. This term is obsolete and should not be used. Instead, a large number of software products for various purposes are being created, which should be reflected in the account using modern names that characterize them. Therefore, it is necessary to make changes in regulations through the exclusion of the term «software for computers» and the introduction of such IAS as «firmware for software devices».

Also, in our opinion, the issue of separation of current IAS in accounting remains relevant and debatable today. Proposals for reflection in the accounting of current IAS were put forward by scientists Bigdan I. A. [26] and Nikolyuk M. Z. [27]. The reflection of current IAS in accounting is argued that if the economic nature of low-value non-current tangible assets, the planned useful life of which is more than a year, correspond to low-value perishable items, which are current assets with a planned useful life of up to a year, then, accordingly, the IAS can be reversible (current). Current intangible assets should be accounted for in a separate account 29 «Current intangible assets».

It is advisable to agree with scientists Bondar M. I. [28], Travin V. V. [29], Umantsiv G. I. [30], who in their works emphasize the importance of accounting for internal goodwill. This is due to the fact that goodwill, in essence, arises not only from the sale or merger of enterprises, but also exists in the form of unaccounted IAS in the current activities of the company. Thus, internal goodwill can be understood as a set of intellectual assets (human, customer, organizational, social, environmental, personal internal goodwill of the head, intangible assets related to contracts), economic and other benefits of the entity that affect efficiency running its business and competitiveness, are used in current activities in order to gain future benefits and additional profits. Internal goodwill should be reflected in the financial and management accounting of the enterprise. Keeping track of internal goodwill will allow you to identify the strengths of the company in its current operations, as well as disclose them in sales, if necessary. Domestic goodwill should include intellectual assets by type, which will be recorded on sub-account 192 «Domestic goodwill».

It is necessary to open analytical accounts 192.1—192. 7 to account for intellectual assets by their types (human assets, personal internal goodwill of the head, client assets, intangible assets related to contracts, organizational assets, social assets, environmental assets), which in total will give the ability to determine the total value of domestic goodwill, to sub-account 192 «Internal

goodwill». This requires the development of appropriate regulatory framework and improvement of accounting methodology in terms of accounting for these assets. In the future, in the field of current legislation, it is necessary to develop methods for the recognition, evaluation and accounting of objects that can be included in the internal goodwill in the system of financial (accounting), and will now be reflected only in management accounting.

Current accounting of internal goodwill and its reflection in the Chart of Accounts and financial statements will improve the quality of Integrated Reporting, which should disclose information about resources and established business relationships, called in the International Standard «Integrated Reporting» capital and divided into financial, production, intellectual, human, socio-reputational and natural. Information on intangible assets and goodwill may also be disclosed in the Management Report. This confirms the need to transform the Ukrainian chart of accounts at the present stage of economic development.

All intangible assets that will form the intangible resources of the enterprise in the future are grouped in *Table 4*.

Table 4

**Transformed Chart of Accounts for accounting of assets, capital, liabilities and business operations of enterprises and organizations of Ukraine in terms of intangible assets and related objects in accordance with modern requirements**

Synthetic accounts	Sub-accounts / analytical accounts / analytical accounts of the second order
Account 12 «Intangible assets»	121 «Rights to use natural resources»
	122 «Rights to use property»
	123 «Rights to commercial designations»
	124 «Rights to industrial property»
	125 «Copyright and related rights»
	<i>126 «Software»</i>
	<i>126.1 Rights to computer programs</i> <i>126.2 Software firmware rights for software devices</i>
127 «Other intangible assets»	
Account 13 «Depreciation (amortization) of non-current assets»	133 «Accumulated amortization of intangible assets»
<i>Account 19 «Goodwill»</i>	191 «Goodwill on acquisition»
	<i>192 «Inner Goodwill» intellectual assets (by type):</i>
	<i>192.1 Human assets</i>
	<i>192.2 Personal internal goodwill of the head</i>
	<i>192.3 Client assets («Client assets. Suppliers»; «Client assets. Buyers»; «Client assets. Potential buyers»)</i>
	<i>192.4 Intangible assets related to contracts («Non-compete agreements»; «Confidentiality agreements»; «Favorable employment contracts»; «Favorable insurance contracts»; «Supplier agreements»; «Buyer agreements»)</i>
	<i>192.5 Organizational assets («Own software»; «Organizational assets. Marketing»; «Certificate of conformity of products»; «Non-patented technologies»; «Non-patented recipes»)</i>
<i>192.6 Social assets</i>	
<i>192.7 «Environmental assets» («Environmental audit»; «Environmental innovative technologies»; «Environmental activities»)</i>	
193 «Goodwill in privatization (corporatization)»	
29 «Current intangible assets»	<i>By types of current intangible assets</i>

The recommended subaccounts and analytical accounts are highlighted in italics.

Source: Supplemented and improved by the authors based on [18—24].

Currently, the Chart of Accounts should include a number of new objects to reflect the actual state of the availability of intangible resources in the enterprise in accordance with the requirements of international standards and accounting.

**Conclusions.** In the Ukrainian economy, there has been a transition from the absence of intangible assets to the gradual emergence of some of their types and the need to depreciate them. Many types of intangible assets have emerged with the rapid development of the information economy, which now have a significant impact on the development of the enterprise and its value,

but are not properly reflected in the Chart of Accounts. Goodwill accounting has undergone the greatest transformation and now requires changes related to the separation of external and internal goodwill. The proposed changes to the accounting for intangible assets will reduce the gap between the market and book value of the enterprise and objectively reflect these assets and related objects in the financial statements. These proposals require amendments to the Regulations (standards) of accounting, the Chart of Accounts for accounting of assets, capital, liabilities of business operations of enterprises and organizations of Ukraine, the Instruction to it and the Guidelines for accounting of intangible assets in order to comply with international standards valuation and accounting.

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