

# VAT History, Computation Method, and Control

Z.A. Kevorkova, A.K. Esenova



**Abstract:** *This paper deals with the history, essence, meaning, and regulation of the value-added tax as the major source of the state revenue.*

**Index Terms:** *accounting, VAT, tax control, computation*

## I. INTRODUCTION

Value-added tax is a relatively young tax. While most of the current taxes were put into practice in the 19th century, VAT was first introduced only in the 20th century. The specific VAT scheme was developed in 1954 by French economist Maurice Laure, who played a major role in the first introduction of VAT in France in 1958.

## II. METHODS AND MATERIALS

### A. GENERAL DESCRIPTION

VAT is an indirect tax [1, 2, 8]. Historically, the first indirect tax was the sales tax levied on the sale of certain goods. For example, it is a known fact that in ancient Rome a state fee was levied on each slave sold. In recent history, the heydays for this tax were during World War I, when a number of belligerent states faced an acute shortage of funds due to huge military spending. This tax was levied at each stage of the goods movement from the manufacturer to the consumer, as a result of which the prices increased significantly to the greatest disapproval of both consumers and manufacturers. After the war ended, the unpopular tax was abolished almost everywhere only to revive at the outbreak of World War II.

Back then, the Russian tax system consisted of a great number of taxes, fees, and charges, while lacking a distinct structure. This is mainly explained by the fact, that along with the development of capitalism, the feudal system still existed in Russia of that time, with its inherent forms of taxation (rent in kind, hearth tax) and imperfect tax administration [13].

In Soviet times, taxation was very much class based. Thus, the system of direct taxes (income tax and capital gains tax), along with the Government's fiscal policy, were aimed to undermine the economic well-being of the propertied classes,

which, in fact, resulted in undermining the economy of the entire country since there was no public sector as such. After the Revolution of 1917 and before the transition to the New Economic Policy, the tax policy was implemented in two main directions: the abolition of all types of obsolete taxes and the creation of new forms of taxation to solve the tasks of the Revolution. Thus, the abolition of the private landownership led to the abolition of the land tax (October 30, 1918) and the former land and city land taxes (December 3, 1918), the nationalization of industry resulted in the abolition of the trade tax (December 28, 1918); urban real estate tax (February 19, 1919) and cash tax (September 13, 1918) were abolished as well [15, 18, 20].

Due to the naturalization of economic relations with a simultaneous sharp reduction in trade turnover and massive currency devaluation, tax performance dropped drastically. Compulsory labor service was another specific feature of the Soviet period, which also can be recognized as some sort of labor tax.

In the early 1920s, due to the transition to the New Economic Policy, a new tax system was created, which copied the pre-Revolution tax system with regard to the distinction made between urban and rural taxation.

By the end of the 1920s, the Government's inconsistent economic and financial policy, as well as the use of direct administrative controls, led to the creation of an awkward tax system, characterized by a great number of taxes, fees and charges [5, 7, 11].

In 1930, tax inspectorates, i.e. structural units of district and city financial departments, were established.

During the Great Patriotic War, the pre-war system of mandatory levies imposed on natural persons was extended to include a number of taxes and duties aimed to satisfy additional budgetary needs (military tax, bachelor tax, tax on unmarried citizens and childlessness, livestock duty, etc.). In the post-war period, the size of mandatory levies imposed on natural persons was reduced, as a result of which the share of taxes in the state revenue in 1946-1950 decreased to a half of its former size and amounted to 7.7% of the total state revenue [3, 6].

In the mid-1960s, transformations in the USSR economy took place to improve the efficiency and profitability of enterprises.

In the 1970s and 1980s, 91% of the USSR total state revenue was formed by the payments from the socialist economy (turnover tax, levies on profits, and other fees levied on state-owned enterprises). Taxes imposed on natural persons constituted only 8-9% of the total state revenue.

Perestroika that started in 1985 resulted in the tax revenue reform.

Manuscript published on November 30, 2019.

\* Correspondence Author

**Z.A. Kevorkova\***, Doctor of Economic Sciences (Advanced Doctor), Professor of the Accounting, Analysis and Audit Department of the Financial University under the Government of the Russian Federation, Moscow, Russia, E-mail: [zhanna.kevorkova@mail.ru](mailto:zhanna.kevorkova@mail.ru)

**A.K. Esenova**, Graduate Student of Department of the Accounting, Analysis and Audit, Financial University under the Government of the Russian Federation, Moscow, Russia

© The Authors. Published by Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP). This is an open access article under the CC-BY-NC-ND license <http://creativecommons.org/licenses/by-nc-nd/4.0/>

**B. ALGORITHM**

In 1991, the development of an independent tax system of the Russian Federation began. In particular, the Law on Value-Added Tax was adopted [4, 9].

It should be noted that there were some improvements in the VAT mechanism. First of all, a one-time settlement of VAT was introduced, usually taking place at the retail stage, thus, virtually eliminating the painful cascading effect. In case of multiple taxations, fiscal authorities were able to obtain timely information on the capital movements, as reported in the tax returns. In case of one-time settlement at the last stage of the commodity circulation, i.e. at the retail stage, such capability no longer existed, thus increasing the risks of tax fraud. These were the main reasons for the rise of the value-added tax, which evenly distributes the tax burden across all stages of the trade cycle and enables the Government to monitor the entire process of production and sale of goods.

The main difference between VAT, as an indirect tax, and other taxes, including sales tax, is a special mechanism for deducting VAT charged on factors of production from VAT charged on the product or service [10, 12].

VAT gained traction after 1957 when the Treaty of Rome was signed to establish the European Economic Community (EEC). According to this Treaty, member states had to harmonize their tax systems for the purpose of establishing a common market. In 1967, a Directive of the EEC Council proclaimed VAT the main indirect tax in Europe, requiring all member states to introduce this tax into their tax systems before the end of 1972 [14, 17].

Currently, VAT (including its modifications, known as the “general sales tax” or “tax on goods and services”) exists in 135 countries of the world [16].

Five countries abolished VAT after its introduction: Vietnam (in the 1970s), Grenada (introduced and abolished in 1986), Ghana (introduced and abolished in 1995), Malta (introduced in 1995, abolished in 1997), Belize (introduced in 1996, abolished in 1999). Subsequently, three of these countries reintroduced VAT: Ghana in 1998, Malta and Vietnam in 1999.

It should be noted that the largest economy in the world, i.e. the USA, does not apply VAT. In Japan, another major trade center, VAT is heavily modified: it is levied at a low rate of 5% and does not provide for VAT refunds.

In developed countries, which have shown the highest rates of economic growth over the past 20 years, VAT is either not levied at all (USA) or levied at lower rates. In the countries of the Shanghai Cooperation Organization (SCO), VAT is levied at the rates of 17-20%, except India, where the VAT of 12.5% and 4 % was introduced only in April 2005 [19].

In oil exporting countries (except Venezuela and Norway) VAT is not applied.

In today’s Russia, value-added tax rightfully holds first place in satisfying the economic needs of the Government, which, in turn, has created a great number of complex, controversial and confusing situations to ensure application of VAT.

to VAT, consumption taxes, or so-called indirect taxes, include turnover tax, sales tax, excise taxes, and some other taxes and fees. Indirect taxes are included in the prices of goods, work, services, and, in contrast to direct income taxes, are paid at the expense of buyers, customers, and clients who pay for the goods (resources) they acquire for their production and non-production activities, as well as for personal consumption.

For over 30 years, VAT has been successfully applied in most market economies.

In the Russian Federation, VAT was put into effect on January 1, 1992, as part of the large-scale economic reform aimed to introduce market relations in the economy and ensure the transition to free market prices for most goods, works, and services. VAT introduced along with excise taxes on certain goods actually replaced the previously existing turnover tax (and the sales tax applied in 1991). At the same time, in comparison with the turnover tax, VAT has an incomparably higher role and effect in financing the state revenues at all levels, in influencing the economy and finances of enterprises, in determining price proportions (in regards to the number of taxpayers, taxable turnover, and computational complexity).

Value-added tax is an indirect consumption tax that applies to goods, work, and services. The main purpose of this tax is to implement the fiscal function of taxes (generate tax revenue). Until 2001, VAT revenue was allocated between the federal and regional levels of the Russian budget system. Since 2001, VAT revenue in full has been remitted to the federal budget only.

The “value added” measure is widespread in macroeconomics. It is used to calculate the gross domestic product and represents the difference between the finished products (goods, work, services) sold and the cost of products consumed in its production. In other words, value added is the additional costs added to the cost of raw materials at each stage of production, sale, and resale (Fig. 1).

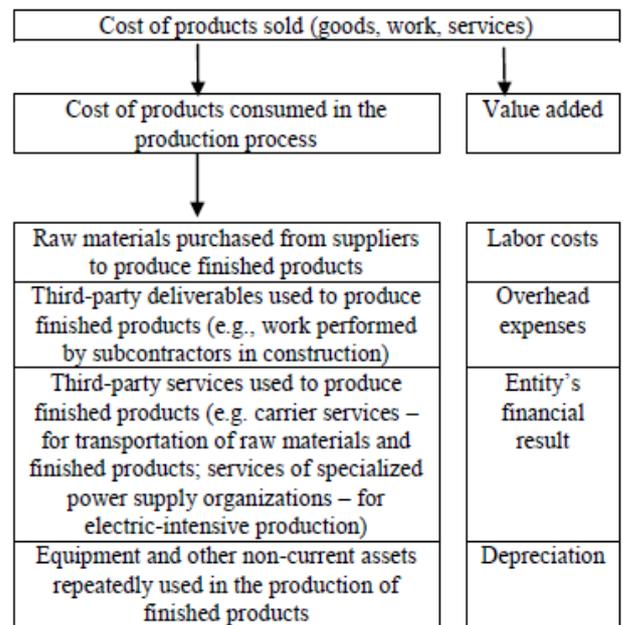


Fig. 1. VAT assessment process

**III. RESULTS AND DISCUSSION**

Thus, value-added tax (VAT) is one of the consumption taxes widely used in the world’s taxation systems. In addition

Attention should be paid to the value of non-current industrial assets and depreciation. In an economic sense, these are interrelated concepts, where the total depreciation (full depreciation) is equal to the value of such non-current assets. However, their presence in the diagram is explained as follows. As known, non-current assets are used in multiple production cycles. In other words, despite the fact that they are necessary for the production process, such assets should be measured up against the moment of their acquisition, and not against the products. Subsequent (post-acquisition) reimbursement of the investment costs incurred in connection with the acquisition of such assets, such as depreciation, is measured against the products. Thus, non-current assets are taken into account only once – for determining the cost of raw materials in the period in which such assets are acquired (depreciation in this period is zero). Further on, depreciation is included in the value added whenever such depreciation is accrued.

#### IV. CONCLUSION

According to the VAT assessment process (Fig. 1), value added can be determined in two ways:

- by adding all added value components (additive method);
- by subtracting the total cost of the raw materials from the cost of sales (subtractive method).

The following arguments can be brought forward to support the second option. For tax purposes, there is no need to determine the actual amount of the value added, the main task is to determine the corresponding tax amount. In such case, the subtractive method is an easier way to solve this task. VAT due is calculated in two stages:

- calculate the amount of VAT for the entire turnover (cost of sales);
- subtract the amount of VAT transferred to suppliers and contractors as part of payments for various raw materials from the first amount. Generally, there is no need to determine each of them individually since VAT amounts are reported in the relevant payment documents and are accumulated in separate accounts.

In practice, the main difficulty associated with this method is to understand which amounts of input VAT (i.e. received at the initial stage of the production process) correspond to the raw materials, and therefore, are deductible, and which are not. For this purpose, the Russian Tax Law has established certain criteria for classifying VAT as input VAT.

#### REFERENCES

1. Kevorkova, Z.A., Petrov, A.M., Savina N.V. Towards liabilities of corporate systems. *International Journal of Civil Engineering and Technology*. Volume 10, Issue 2, February 2019, Pages 1582-1593
2. Lymar, M.P., Kevorkova, Z.A., Petrov, A.M. The convergence of national and international accounting standards: Chinese experience. *International Journal of Civil Engineering and Technology*. Volume 9, Issue 13, December 2018, Pages 82-94
3. Karpova T.P., Petrov A.M., Antonova O.V., Directions of Accounting Development in the Conditions of Digitalization. *Jour of Adv Research in Dynamical & Control Systems*, Vol. 10, 07-Special Issue, 2018, pp. (117-125)
4. Petrov A.M., Nikiforova E.V., Kiseleva N.P., Grishkina S.N., Lichtarova O.V., Creation of the reporting on sustainable development of companies based on socioeconomic measurement statistics / *International Journal of Recent Technology and Engineering*. Volume-8 Issue-2, July 2019, p. 4005-4012
5. Alexander M. Petrov, Marina V. Kosolapova, Igor G. Yshanov, Nataliya K. Muravitskaya, Hursheda Nurmuhamedova The Economic Significance of Statistical Research Activities of Representative Offices of Companies Abroad / *International Journal of Innovative*

- Technology and Exploring Engineering(TM). Volume-8 Issue-10, August 2019 p. 2713-2722
6. Lyudmila V. Sotnikova, Svetlana N. Polenova, Nataliya A. Mislavskaya, Alexander M. Petrov, Mariya M. Basova. Sustainable development, macro and micro level: Russian and foreign model / *International Journal of Recent Technology and Engineering*. Volume-8 Issue-2, July 2019, p. 4524-4532
7. Nikiforova E.V. PARADIGM OF PUBLIC REPORTING OF ECONOMIC ENTITIES // *World Applied Sciences Journal*. 2014. T. 29. № 5. С. 667-670.
8. Suleymanov M.M., Magomedov R.M., Savina S.V., Fomicheva T.L. Basic models of tax federalism in global practice: Specific characteristics and structural and functional organization. *Academy of Accounting and financial studies journal*. - 2018. - Vol. 22. - Issue 3. - С. 1-9.
9. Marina V. Kosolapova, Nataliya K. Muravitskaya, Michail N. Tolmachev, Lyubov A. Melnikova, Alexander M. Petrov Technology for solving the problems related to the implementation of the concept of preserving capital in accounting and statistics / *International Journal of Recent Technology and Engineering*. Volume-8 Issue-3, July 2019, p. 789-792
10. A.M. Petrov, N.P. Kiseleva, Z.A. Kevorkova, L.A. Melnikova, I.G. Yshanov Present development practices for tax, financial and statistical reporting in the Russian Federation / *International Journal of Innovative Technology and Exploring Engineering(TM)*. Volume-8 Issue-12, October 2019.
11. A.M. Petrov, Y.E. Putihin, M.V. Poluleh, I.O. Yurasova, V.N. Erohina. Accountant Modeling Technology and Statistics in the Context of the New Educational Concept / *International Journal of Innovative Technology and Exploring Engineering(TM)*. Volume-8 Issue-12, October 2019.
12. Turishcheva, T.B., Akhmadeev, R.G., Chaykovskaya, L.A. (2019) Institutional environment of internal controls in autonomous establishments. *International Journal of Innovative Technology and Exploring Engineering*, 8 (12), pp. 2353-2357.
13. Turishcheva, T.B., Ponomareva, D.A., Luzzgina, A.S. (2019) Review of the key requirements for the financial statements complying with the international and Russian accounting standards. *Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: Education Excellence and Innovation Management through Vision 2020*, pp. 3031-3039.
14. Akhmadeev, R.G., Kosov, M.E., Bykanova, O.A., Turishcheva, T.B. (2018) Development of venture financing to ensure economic security of a country. *Proceedings of the 32nd International Business Information Management Association Conference, IBIMA 2018 - Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional expansion to Global Growth*, pp. 51-56.
15. Akhmadeev, R.G., Bykanova, O.A., Turishcheva, T.B. (2018) Brics' foreign debt burden and its impact on core institutional basis. *Journal of Reviews on Global Economics*, 7, pp. 345-359
16. Akhmadeev, R.G., Bykanova, O.A., Salomadina, P.S. (2019). The effect of the VAT change on the final consumer. *Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: Education Excellence and Innovation Management through Vision 2020*, pp. 765-770.
17. Crisis y economía sumergida en Norte de Santander (Colombia). Jorge RAMÍREZ Zambrano; Johanna Milena MOGROVEJO; Liliana Marcela BASTOS Osorio
18. Kasyanenko T. G., Makhovikova G. A. Analysis and risk assessment in business: a textbook and a workshop for undergraduate and graduate programs - 2nd ed., Pererab. and add. - M.: Publishing Urait, 2018.
19. Magomedov R.M., Israpilov K.A., Zolotaryuk A.V., Doguchaeva S.M., Gorodetskaia O.Y., Tsvetkova O.N. Regional taxable capacity measurement methodology based on factors that determine tax gaps based on the example of the Republic of Dagestan // *Regional Statistics*, Vol. 9. No. 2. 2019: 173–189; DOI: 10.15196/RS090207
20. Magomedov R.M. Digital Technologies for Competitive Analysis and Evaluation of Competitive Capacity of a Business Entity /// *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*. Vol. 9. No. 1. 2019: 1184-1189; DOI: 10.35940/A4522.119119

## AUTHORS PROFILE



**Z.A. Kevorkova** - Professor of the Accounting, Analysis and Audit Department of the Financial University under the Government of the Russian Federation (Moscow), Doctor of Economic Sciences (Advanced Doctor). She is the author of more than 120 scientific publications like monographs, textbooks, articles, created both personally and in collaboration over the past 35 years.



**A.K. Esenova**, Graduate Student of Department of the Accounting, Analysis and Audit, Financial University under the Government of the Russian Federation, Moscow, Russia