Dynamics in the Economy of Productivity and the Concept of Development of the Service Sector

Abstract: The article analyzes the main trends and examines the essential features and directions of development. The level of economic science has established the idea of a relatively low growth rate of productivity in the service sector. In this case, the continuous expansion of its position in the economy should lead to a decrease in efficiency at the macro level. However, this is clearly not consistent with reality.

Keywords: Service industry, analysis, concept, economics, development, costs, production, efficiency, income, factors.

Introduction

In economics, as you know, for a long time the idea of most services as unproductive, living off the income of other sectors, rooted in the works of the classics of political economy and the theoretical legacy of Marxism, prevailed. Public opinion also received a wide circulation of views on services as a stagnant sector, a refuge for marginalized strata, low-skilled labor force, small business, etc.

Materials and research methods

In the course of the forward movement of the sphere under consideration, polemics unfolded regarding many aspects of its development. In the center of scientific discussions was the concept of "cost disease", developed in the 60 years famous American economist W. Baumol. Dividing the economy into two sectors - developing industrial and stagnating - the service sector, relying on statistics on a large gap between them in terms of productivity and on a number of assumptions, he came to the conclusion that technological progress in services, especially in those working for final consumer demand, due to the specifics of production, can only be temporary, and the industries themselves are doomed to low labor productivity and, accordingly, to a continuous increase in costs and prices. The unbalanced growth of the two sectors dictates the inevitable overflow of resources into slow-growing or stagnating industries, which ultimately leads to a slowdown in output growth and labor productivity at the macro level.

The provisions put forward by W. Bomol already at that time were questioned by well-known researchers of productivity and the economy of services, such as J. Kendrick, V. Fuchs and others, who noted a...
number of dubious provisions, such as the inclusion of all services in a stagnant sector, the inconclusiveness of benchmarking labor productivity due to serious flaws in statistics. I ignored W. Baumol and the differences between sectors in the volumes of consumption of fixed capital, which have a significant impact on the ratio of multivariate productivity indices. However, major flaws in statistics excluded for a long time the possibility of testing this hypothesis.¹

The discrepancy between theory and real life became more and more obvious in the 90 years and subsequent years, when studies of the economy of the service sector were widely developed. By this time, the statistical base had also noticeably improved: new sources of information appeared, its reliability increased, progress was made in the development of methodological problems of measuring products, resource provision, productivity, which are especially difficult in services, and so on. The problem of services occupies an increasingly prominent place in scientific research, attracting the attention of a wide range of economists, including the most famous and authoritative ones. In government agencies, universities, private research centers of leading countries and international organizations, units are being created to study the topical problems of the area under consideration.

The concentration of research on the problems of service economics is producing results. One of them is testing the concept of “cost disease” by W. Bomol and the negative impact of this disease on the service sector and the economy. The authors of a number of branch and general works conclude that its provisions are not confirmed by real life and statistics. The experience of the USA, like other countries, shows that the long-term trend of expanding the position of the service sector in the economic structure, the inflow of large and growing volumes of resources into its industry is not accompanied, as might be expected, by a regression of the economy and social relations and, ultimately, the level and quality of life of the population. In the same way, the long-term leadership of the USA in terms of the level of development of the area in question not only did not undermine the country's primacy in the developed world, but also, in all likelihood, strengthened its competitive position in the global space. The hypothesis about the inflow of resources into stagnating segments that is detrimental to overall progress is not confirmed, primarily because in the modern service sector, one can hardly find signs of stagnation, if we do not take into account the natural process of the withering away of those types of services that are not in demand by the population, economy and society. It was noted above that a number of new services, like traditional ones, are included in the group of leaders in technology, production dynamics and productivity. Although a number of domestic and socio-cultural services are indeed growing relatively slowly, they are by no means stagnant; moreover, their indicators are especially strongly distorted by imperfect statistics. The failure of outdated approaches to assessing the role of service industries in the economy is also refuted by the dynamics of productivity. The phenomenon of its acceleration in many industries in recent years is not an accident, but the result of objective processes, which is recorded by official statistical measures.

The “rehabilitation” of services from the standpoint of their place and role in the modern economy is largely associated with the expansion of the statistical base and the improvement of the methodology for measuring costs, results and other aspects of the production of services. It should be noted that the conclusions of researchers about a certain "inferiority" of service industries are explained not only by large gaps in statistical support, but also to a large extent by the inability of generally accepted methods and meters developed in relation to material production to adequately reflect the parameters of intangible production. The long-overdue problem of improving statistics has now come to the fore, raised in a number of countries to the state level. The 2002 year USA President's Economic Report noted, “Existing

measurement methods do not reflect productivity growth in service industries, ICT consumers. This defect may result in an underestimation of annual productivity growth of 0.2–0.4 percentage points or more".2

Additional funds are allocated from the federal budget for scientific developments in this area, and the list of priority goals includes the development of meters for the volume of e-commerce and other Internet services, computer programming, price dynamics for products of high-tech industries, taking into account quality, etc. Intensive research in this direction is carried out in other countries and international organizations and associations, such as the EU, OECD, WTO, etc.

The current system of measuring costs and results needs serious improvement. Calculations of the costs of resources, in particular labor, are complicated by the widespread prevalence of part-time employment, small business, including family business, etc. It is extremely difficult to assess the growing volumes of various types of intangible investments. The problem of accounting for products and especially its quality characteristics is not easier, and this is a very significant component of many services. In a number of industries, primarily in the professional, socio-cultural, media business and Internet services, it is very difficult to define the very concept of a product, let alone measure it.

New data of economic qualifications on the flows of services in the system of inter-sectoral relations and on gross output by sector of the economy improve the possibilities of calculating productivity indicators. This issue is a priority area of research carried out by the Bureau of Labor Statistics (BLS) of the USA Department of Labor. They focus on improving the reliability of product indicators, in particular, by changing the technique of deflation of the value of services, replacing previously used consumer price indices with lower producer price indices. The use of the latter variant of deflation gives more accurate indicators of the volume and dynamics of production, and, accordingly, productivity. The same result is obtained by adjusting the price index for changes in product quality, that is, the use of the so-called "hedonic" indices. In a number of services, the problem of measuring products is solved by replacing or supplementing cost indicators with one or another representative natural one; in financial services, for example, the volume of transactions performed through ATMs, the number of processed checks, etc. is taken into account.

Because of intensive development, the largest biases in service performance are being eliminated to varying degrees. Thus, in the USA, the average annual labor productivity index in the private sector of the economy for 1990–2000 years, calculated in accordance with both classifications, is the same and amounts to 2.0%, but in the manufacturing industry, calculated according to NAICS, it is 3.7% versus 3, 8% according to SIC, while in wholesale trade it rises from 3.4 to 3.9%, in retail trade - from 2.9% to 3.2%. In the information block of industries, first identified in the new classification, this indicator reaches 4.9%, that is, it is much higher than the average and other industry values.3

Of particular relevance are the problems of measuring products and other indicators in the sectors of a socio-cultural profile. The indicators used indicate a relatively low efficiency, and often even a drop in productivity in this block, as well as in household services and other services to the population. A number of circumstances seem to explain their reasons: weak competition, especially in non-market sectors, where a large array of social services is concentrated, relatively low-income elasticity of demand, sustainability of individual relationships between producers and customers, strong local monopoly in a number of markets, relatively low degree of involvement into global connections, etc. On the other hand, official statistics do not agree well with the multifaceted and impressive progress in these industries.

The situation in the healthcare sector, which has risen because of ICT, advances in biotechnology, pharmaceuticals, etc., is indicative. To a qualitatively higher level. In recent years, there has been an active search for adequate indicators. In the USA, the change in the BLS in 1992 in the cost deflation technique led, for example, to a significant adjustment in the values of the average annual increase in multifactor productivity: its negative dynamics in the industry after 1995 year changed to positive, amounting to (+) 0.7% versus (-) 4.0%. However, this approach, if it allows revealing real processes, is at best only partially.

Developments at the micro level are more productive, where it is easier and easier to determine the costs and results of labor on a specific material. Measurement of production in psychiatric services using a more "fine" methodology based on profile data showed, for example, that its volume in 1990-1995 years. On average for the year increased by 5%, while according to official data - decreased by 1.4%. If, according to the results of this calculation, the sectoral indicators are adjusted, then in the period up to 1995 year one finds an increase in labor productivity in health care instead of a decrease, according to official data. This kind of work is being done in other countries and service industries. Comparing real processes with their statistical picture, experts are inclined to conclude that the stagnation of productivity and especially its negative dynamics in the context of the rapid progress of social sectors is nothing more than an anomaly caused solely by the failure of the methodology and technique of calculations.

The improvement of statistics, as well as real facts, serve as the basis for revising the ideas about the inferiority of the considered sphere caused by its chronic illness. Fundamentally important in this regard is the statistically substantiated conclusion of the American economists J. Triplett and B. Bosworth in a scientific publication under the meaningful title "Bomola's disease" cured: information technology and multifactorial productivity in the USA service industries "and a number of other works. Other researchers of this problem, unconditionally or with some reservations, agree to their conclusions about a "healthy" basis for the development of the service sector.

In the situation of recent decades, a reasonable, in our opinion, assumption made in the early 90 years is confirmed. the well-known American scientist and recognized authority on productivity issues Z. Grilichesom that “Treatment of the “Bomol's disease” was found long ago, but statistics did not record it; and perhaps the service sector was not sick at all, it was just that the thermometer — its meter — was faulty”.5

The dynamics of productivity in services also provides an answer to another economic puzzle of recent years, widely known as the R. Solow paradox: a prominent American economist noticed in the late 1980 year that computers are visible everywhere, but not in productivity statistics.6

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4 J. Triplett, B. Bosworth. Op. cit.; Anita Wolff “Productivity Growth in Service Industries. An Assessment of Recent Patterns and the Role of Measurement”. OECD. 2003. It is noteworthy that U. Bomol, even at the beginning of the explosive growth of ICT, while not denying their positive impact on productivity, believed that the “disease of costs” would persist in the new situation and would ultimately lead to a slowdown in the informatization process. In his opinion, the reduction in the cost of computers based on productivity growth will be accompanied by a comparative rise in the cost of software and other services, since they are based on "low-productivity, quasi-handicraft" labor. Increasing costs of all types of computer services and their high cost will force entrepreneurs to keep the old methods, and not to introduce computer science. These expectations were not confirmed: labor productivity in these services grew at the highest rates (see: “Services in Transition” The Impact of Information Technology on the Service Sector. Ed. By G. Faulhaber, E. Noam, R. Tesley. Univ.of Pennsylvania 1986. P. 188-189; Table 6.4. Of this chapter)


Subsequent events showed that the effect of ICT is by no means a phantom; it is found to a large extent in consumer industries, and is most clearly expressed in productivity growth in service industries that absorb the main flows of investment in ICT.

The problems of constructing reliable indicators in services, however, do not lose their sharpness, and are often aggravated by the flow of innovations, individualization and customization of services, the expansion of types and the complication of forms of intangible products. Transmission over distance and online of a large array of information, growing opportunities for mass consumption of high-class services, including socio-cultural, via the Internet and other mechanisms, etc. require fundamentally new approaches, criteria, methods and measurements. Many unresolved issues remain in productivity studies, not only in defining and measuring output and costs, but also in incorporating micro-level data into general economic indicators.

Thus, the conducted studies lead to the conclusion about a "healthy" economic basis for the expansion of the service sector. In the long-term aspect, it develops not only on the basis of an objectively determined process of overflow of resources from other sectors, but also to an increasing extent due to internal sources, making, in turn, an increasingly significant contribution to the development of the entire economy.

The continuous growth of employment and the inflow of other resources into the area under consideration is the result not only and not so much of low productivity of the labor force and other factors, but of the objective process of increasing the complexity of needs and the expansion of demand for services, the preservation, and in the conditions of technological progress, of the high labor intensity of many operations, improving the quality and variety of services, etc. It is noteworthy that in the last 2-3 decades, the number of people employed in this area has absolutely and relatively increased against the background of increasing productivity.

The growth of productivity in recent decades means an increase in the role of intensive factors in the process of reproduction of a number of industries, their transition from its predominantly extensive model to the stage of intensification. The underlying causes of employment growth in this sector are likely to remain valid in the long term.

But its pace, apparently, will decline under the influence of a number of factors - the large scale of production and employment achieved, an increase in labor productivity in the private sector of services, the spread of external outsourcing in meeting domestic demand. The same result can be expected from programs to improve the efficiency of non-market sectors of the economy. Under these conditions, one can expect an increase in the trend towards accelerating productivity dynamics, its spread to a wider range of services with positive impacts on the growth and efficiency of the sector in question and the entire economy of developed countries.

References


9. In 2002, it was (%): for the entire USA economy - 3.6; for non-industrial sectors, represented mainly by services - 4.4; software -21.5; system integration and other computer services - 16.5; research firms - 21.3; engineering and architectural - 7.8; management services - 7.6 (see: Statistical Abstract of the United States 2006. Wash., 2006. P. 538).

10. The capital ratio in 2002 in such large industries with intensive investments as retail and wholesale trade, according to our calculations, was 0.73 and 1.02, respectively, while in the manufacturing industry - 1.18. Some sectors of the information block, primarily radio and television broadcasting, as well as social services, are characterized by a rather high capital intensity, but their impact on the dynamics of capital intensity is limited either by a low share in the fixed assets of the sphere, or by moderate growth rates. In the most dynamic and large sector of business and professional services, the values of this coefficient vary in the range of 0.32-0.50 (calculated according to the statistics of the USA national accounts).


