Abstract: The article considers the essence and concept of forecasting and planning, which allows to anticipate the possibilities and consequences of all changes in the economy. In particular, summary information on the stages of forecasting and planning formation in the history of macroeconomics is presented. The possibility of reducing and eliminating the influence of negative factors on social and economic processes was analyzed. It is also about methods, function and principles of economic forecasting, its role in planning. Approaches to forecasting have been studied. In addition, the current state of forecasting and planning in developed foreign countries of the world has been studied, as well as the possibility of applying best practices of forecasting in the Republic of Uzbekistan has been considered.

Key words: classification of forecasts and plans, economy, finance, forecasting, forecasting methods, planning, principles of forecasting.

Language: English

Citation: Suk, Y. C., Maksudov, J., Numonov, S., & Axmedov, A. (2019). Some aspects of forecasting as part of macroeconomic analysis. ISJ Theoretical & Applied Science, 12 (80), 375-381.

Soi: http://s-o-i.org/1.1/TAS-12-80-74 DOI: https://dx.doi.org/10.15863/TAS.2019.12.80.74

Scopus ASCC: 2000.

Introduction

In today’s environment, there is an ever-increasing need for forecasts. The history of forecasting shows that forecasting originated many centuries ago and has improved continuously since forecasts appeared. The development of their farm was predicted. The capitalist brought to perfection the planning and management of production within the firm. Early predictions were based on certain subjective reasons, and the likelihood of their failure was very high. As the methodology for the justification of phenomena has developed, as a result of the accumulation and use of human experience and scientific knowledge, forecasts have become more complex and more reliable[1].

Materials

In the ancient ages, attempts to imagine the future were characterized by an orientation towards certain philosophical concepts. Such ideas of the future include the concepts of philosophers such as...
Plato and Confucius. In the middle ages, progress was understood as a consequence of the improvement of the human mind and the influence of the world around it. At the beginning of the economic forecasting, the main methods were the expert assessment method and the extrapolation method. Crisis of 1929-1933. Abroad was a powerful impetus in the development of forecasting and planning[2]. Planning at the macro level abroad arises for the first time in the 1930s. In the system of economic regulation, forecasts and plans become a necessary element.

Forecasts were made using the cost-output model. In the formulation of national budgets, the first plans at the macro level covered such as fiscal and monetary policies.

In the 1950s two new directions of forecasts were formed. The first relates to the complexity of the administrative apparatus used for planning, and the second to the expansion of the planning sphere.

And in 60. Special economic planning and forecasting bodies have been formed. Office of Economic Planning, Economic Advisory Council in Japan. The General Commissariat for Planning is in France. The central planning bureau is in the Netherlands. The Economic Council is in Canada. The System of National Accounts (SNA) is being implemented. Cross-sectoral and financial balances are integrated with the SNA in many countries around the world.

In the mid-1970s, new macroeconomic models of forecasting began to emerge, with the help of which the development of the economies of a number of countries, regions and the whole world is predicted [3].

Forecasting is a crucial link between theory and practice in all areas of society. According to modern researchers, it performs two main functions. The first function is prediction, which implies a description of possible or desirable states, solutions, alternatives. The second function is prediction, which means using information about the future in targeted activities. The first function reflects the theoretical-cognitive aspect of forecasting, and the second one reflects the managerial aspect of forecasting.

Nature of the forecast object: economic; social; scientific and technical; ecological.

Approach to forecasting: normative; search; complex. The task of the search forecast is always to determine the prospects, possible states of development of the prediction object in the future and probabilities of their achievement. The normative forecast defines the ways and means of achieving certain alternatives, considering the alternatives themselves as specified. The comprehensive forecast combines the two previous ones. Level of forecasting object: local, regional, interregional, national, interstate, global. Plans are classified by content, planning object, time of operation, and degree of accuracy [4].

A prediction method is a method of investigating a prediction object aimed at developing a forecast. Currently, there are about 150 prediction methods, but about 20-30 main methods are practically used. By degree of formalization, prediction methods are divided into formalized and intuitive. Formulated methods are used when information about a prediction object is mostly quantitative and the influence of various factors can be described using mathematical formulas. Intuitive methods are used when quantitative information about the prediction object is not available or is mainly qualitative and the influence of factors cannot be described mathematically. The goal tree method is used to predict more complex economic processes in which many structural or hierarchical levels can be identified. The “goal tree” procedure is the formulation of the general objective of the forecast and then divided into a series of level 1 sub-goals, which in turn results from the implementation of level 2 sub-goals, etc. At the same time, this division of the general goal comes as if from the future in the present with the establishment of intermediate events and the fixation of causal relations between them[5]. Intuitive prediction techniques are typically applied to processes that cannot be described by mathematical formulas. The use of these methods makes it possible to obtain a forecast estimate of the state of development of the object in the future regardless of its information security. First of all, when classifying forecasting methods, it is necessary to bear in mind that the meaningful systematization of forecasting methods should be determined by the object of forecasting itself, economic processes of development and their patterns. The main function of forecasting is to carry out scientific analysis of socioeconomic processes and trends, as well as to anticipate new economic situations and identify core economic problems. The main functions of forecasting are also to study the objective links between socio-economic phenomena and processes in specific conditions, at a certain stage of economic and social development, to assess the object of forecasting, to identify possible alternatives to economic development in the future, to make optimal decisions[6].

The principles of forecasting change according to the economic conditions that exist at some historical stage of society’s development.

Planning disadvantages include:

- weak accounting of natural laws and trends of development of the commodity-money relations;
- increase of a role of the plan as end in itself of activities for the principle “the plan - at any cost”, some kind of fetish of the plan over the economic relations;
- lack of the field for maneuverability of actions of the enterprises of different regions and inflexibility of the developed system of planning;
methodological weakness of the planning which is not considering reserves, an initiative, variety of microlevel;

♦ oblivion of the separate aspects of life recognized by ruling party unpromising, for example cybernetics, genetics;

♦ considerable expenditure of forces, time and funds for development, coordination, statement, specification and maintenance of stability of planned targets[7].

Prediction techniques such as extrapolation, expert assessments and goal tree techniques were widely used. Analysis of this work reveals a number of problems of forecasting. Among them:

♦ weak study of questions of the theory and practice of forecasting, than speaks relative disorder of organizational forms of new science;

♦ insufficient coordination of actions for forecasting development, including for exchange of information and training;

♦ ignorance by performers of forecasts of many methods of forecasting;

♦ insufficient information base for development of forecasts, closeness of many data;

♦ essential costs of performance of separate types of forecasts;

♦ the indistinct expressiveness is more whole than development of forecasts, frequent lack of interrelation between expected and planned targets;

♦ insufficiency of development of techniques and procedures of implementation of forecasts.

Thus, in the context of a market economy, when making forecasts, it is necessary to answer the following questions: for whom to produce and sell? What to make production from? How should production and sales be carried out?[8]

In Japan, all large firms have planned departments; Plan preparation is centralized, planning is carried out from top to bottom. The planning time horizon is usually five years, and the forecasting horizon is fifteen years. The planning process in Japan in most cases consists of four stages: formulation of prerequisites, clarification of problems, long-term strategy, medium-term and short-term plans. It should be emphasized that Japan, like France, has a system of nationwide forecasting, sometimes referred to as indicative planning[9]. In South Korea, expert assessments have been widespread in forecasting. For quantitative calculations using modeling methods, South Korea uses USA assistance. South Korea's economic reality is centralized planning using medium- and long-term plans and targeted programs, with sometimes detailed production tasks and deadlines, with a strict system of monitoring economic activity and ruthless economic and sometimes administrative-command rejection of "losers." But all this is linked to the market. Forecasting in the USA is one of the most important forms of economic regulation. Tens of thousands of professionals work in the field of forecasting. Forecast development is carried out by government departments of various levels, research organizations, commercial forecast firms, private industrial, banking and trading corporations[10]. The economy at world level, development of the certain countries and groups of the countries, economy of the USA in general, its industries, states, districts, counties and urban areas, separate firms, commodity markets is predicted[3].

GDP is one of the most important indicators of the System of National Accounts, characterizing the final result of the production activity of economic units-residents, which is measured by the value of goods and services produced by these units for final use[11].

| Table 1. Production of GDP by types of economic activities in January-September |
|---------------------------------|-----------------|-----------------|------------------|
|                                | Billion soums   | Physical         | Impact on GDP growth, % |
|                                | 2018            | 2019            | %     | %     |
| GDP - total                    | 290 161.9       | 361 858.4       | 105.7 | 5.7  |
| including:                    |                 |                 |       |      |
| Gross value added (GVA)        | 256 716.4       | 329 091.0       | 105.7 | 5.0  |
| agriculture, forestry and fisheries | 80 331.3     | 92 186.7       | 102.4 | 0.6  |
| industry                      | 65 351.2        | 96 227.9        | 107.0 | 1.6  |
| construction                  | 16 677.7        | 22 561.0        | 119.3 | 1.1  |
| trade, accommodation and catering services | 19 496.9 | 23 094.3 | 104.1 | 0.3  |
Impact Factor:

| Journal          | Impact Factor |
|------------------|---------------|
| ISRA (India)     | 4.971         |
| ISI (Dubai, UAE) | 0.829         |
| GIF (Australia)  | 0.564         |
| JIF              | 1.500         |
| SIS (USA)        | 0.912         |
| PHHII (Russia)   | 0.126         |
| ESJI (KZ)        | 8.716         |
| SJIF (Morocco)   | 5.667         |
| ICV (Poland)     | 6.630         |
| PIF (India)      | 1.940         |
| IBI (India)      | 4.260         |
| OAJI (USA)       | 0.350         |

According to preliminary estimates, the gross domestic product (GDP) of the Republic of Uzbekistan during January-September 2019 in current prices amounted to 361 858.4 billion soums and increased in real terms by 5.7% compared with January-September 2018. The GDP deflator index with respect to January-September 2018 prices was 118.0 %. GDP per capita amounted to 10 805 thousand soums and increased by 3.7 % compared to the corresponding period last year[12].

Table 2. Structure of gross value added of industry January-September

| Industry                                      | Billion soums 2018 | Billion soums 2019 | physical volume index, % |
|-----------------------------------------------|--------------------|--------------------|--------------------------|
| Industry                                      | 65 351.2           | 96 227.9           | 107.0                    |
| including:                                   |                    |                    |                          |
| mining industry and quarrying                | 14 692.9           | 21 369.9           | 101.9                    |
| manufacturing industry                       | 46 503.6           | 68 071.0           | 108.9                    |
| other industries                             | 4 154.7            | 6 787.0            | 101.6                    |

According to the results of January-September 2019, agriculture, forestry and fisheries showed a positive growth rate of 2.4%. The contribution of this industry to GDP growth was 0.6 percentage points. The positive dynamics in agriculture, forestry and fisheries is associated with an increase in crop production by 2.4% and livestock by 2.5%. In the industry, there is an increase in value added by 7.0%.

At the same time, the positive contribution to GDP growth from industrial production amounted to 1.6 percentage points. The positive dynamics in this industry was ensured due to the growth of value added of the mining industry and quarrying by 1.9%, manufacturing - by 8.9% and other industries -by 1.6%[13].
Impact Factor:

| Journal | Impact Factor |
|---------|---------------|
| ISRA (India) | 4.971 |
| ISI (Dubai, UAE) | 0.829 |
| GIF (Australia) | 0.564 |
| JIF | 1.500 |
| SIS (USA) | 0.912 |
| ICV (Poland) | 6.630 |
| PHHII (Russia) | 0.126 |
| ESJI (KZ) | 8.716 |
| IBII (India) | 4.260 |
| SJJF (Morocco) | 5.667 |
| PIF (India) | 1.940 |
| OAJI (USA) | 0.350 |

Figure 1 - GDP growth rates by economic activity in January-September 2019 (% compared to January-September 2018)

The pace of economic growth in January-September 2019 was due to positive dynamics in the main sectors of the economy. Gross value added generated by all sectors of the economy amounted to 90.9 % of the total GDP and grew by 5.7 % (contribution to GDP growth-5.0 percentage points). Net taxes on products in the structure of GDP amounted to 9.1 % and showed an increase of 5.6 % (contribution to GDP growth-0.7 percentage points)[14].

In January - September 2019, the GDP deflator index was 118.0 % with respect to prices of the same period in 2018. The highest values of deflator indices in the structure of GDP were recorded in industry - 137.6% and other services - 124.7%. Deflator indices below the national average were observed in agriculture, forestry and fisheries - 112.1%, construction - 113.4%, trade, accommodation and food services - 113.8%, transportation and storage, information and communication - 110, 1% and in net taxes on products - 92.8%[15].
Impact Factor:

| Journal | Impact Factor |
|---------|---------------|
| ISRA (India) | 4.971 |
| ISI (Dubai, UAE) | 0.829 |
| GIF (Australia) | 0.564 |
| JIF | 1.500 |
| SIS (USA) | 0.912 |
| PHHH (Russia) | 0.126 |
| ESJI (KZ) | 8.716 |
| ICV (Poland) | 6.630 |
| PIF (India) | 1.940 |
| IBI (India) | 4.260 |
| SJIF (Morocco) | 5.667 |
| RIHNC (Russia) | 0.126 |
| ESJI (KZ) | 8.716 |
| OAJI (USA) | 0.350 |

Figure 2 - Indices - GDP deflators by type of economic activity in January - September 2019 (% of January - September 2018)

Conclusion

Uzbekistan uses foreign best practice in forecasting and planning, standards of international organizations as: International Monetary Fund, World Bank, European Bank for Reconstruction and Development, Asian Development Bank, SNA standards. Various methods are used in budget forecasting: mathematical modeling method; index; standard; expert estimates; balance and others [16]. The method of mathematical modeling, based on the application of the economic and mathematical model, allows to take into account many mutual linking factors affecting budgetary indicators, and to choose from several versions of the draft budget the most appropriate, corresponding to the accepted concept of social and economic development of the country and the budget policy. Work is being projected with the IMF technical assistance mission to bring the standard reporting forms into line with the new standards as required by the latest IMF Monetary and Financial Statistics Manual. Budget planning in Uzbekistan is carried out by State authorities. It includes the theory and methodology of State budgeting, the formation of a legal and regulatory framework, and an organizational framework [17].
Impact Factor:

| Journal  | Impact Factor |
|----------|---------------|
| ISRA (India) | 4.971 |
| ISI (Dubai, UAE) | 0.829 |
| GIF (Australia) | 0.564 |
| JIF | 1.500 |
| SIS (USA) | 0.912 |
| PHHI (Russia) | 0.126 |
| ESJI (KZ) | 8.716 |
| SJIF (Morocco) | 5.667 |
| ICV (Poland) | 6.630 |
| PIF (India) | 1.940 |
| IBI (India) | 4.260 |
| OAJI (USA) | 0.350 |

References:

1. Wheatley, J. D. (2016). *Macroeconomic Modelling and Forecasting Course*. (p.302). Princeton University Press (April 5, 2016).
2. Elliott, G., & Timmermann, A. (2016). *Economic Forecasting*. Hardcover – April 5, 2016 p.568
3. Hendry, D. (2019). *Forecasting: significant introduction*. (p.240). Yale University Publishing House -June 11, 2019.
4. Margianti, E. S. (2016). Ets. *Entrepreneurship in Uzbekistan: trends, competitiveness, efficiency*. *Indonesia, Jakarta, Gunadarma Publisher*.
5. Numonov, S.N., & Tolibov, I.Sh. (2019). *Malyj biznes kak instrument obespecheniya zanyatosti naseleniya v Uzbekistane. Ekonomika i biznes: teoriya i praktika*, (5-2), 172-175. doi: 24411/2411-0450-2019-10649.
6. Okun, A. M. (2011). *Prices and quantities: A macroeconomic analysis*. Brookings Institution Press.
7. Kurpayanidi, K., Muminova, E., & Paygamov, R. (2016). Management of innovative activity on industrial corporations/Lap Lambert Academic Publishing.
8. Kurpayanidi, K. I., & Abdullaev, A. M. (2018). Actual issues of the functioning of an innovative industrial enterprise. *ISIJ Theoretical & Applied Science*, 11(67), 74.
9. Kurpayanidi, K. I. (2018). Questions of classification of institutional conditions, determining the structure of business management in Uzbekistan. *ISIJ Theoretical & Applied Science*, 9(65), 1-8.
10. Kurpayanidi, K. I. (2018). The typology of factors of increasing the innovative activity of enterprise entrepreneurs in the industry. *ISIJ Theoretical & Applied Science*, (10), 66.
11. Kurpayanidi, K. I., & Abdullaev, A. M. (2018). Activation of foreign economic relations on the basis of innovative development. *Practice of Uzbekistan/LAP LAMBERT Academic Publishing, European Union, Germany*.
12. Carriero, A., Clark, T. E., & Marcellino, M. (2018). Measuring uncertainty and its impact on the economy. *Review of Economics and Statistics*, 100(5), 799-815.
13. Gonzalez Minguez, J. M., & Martinez-Carrascal, C. (2019). The relationship between average annual and quarter-on-quarter GDP growth rates: implications for projections and macroeconomic analysis. *Banco de Espana Article*, 27, 19.
14. Rima, I. H. (2015). *Labor Markets in a Global Economy: A Macroeconomic Perspective: A Macroeconomic Perspective*. Routledge.
15. Adjì, S. S., Ahn, Y. S., Holsey, C. M., & Willett, T. D. (2018). Political capacity, macroeconomic factors, and capital flows. In *Political capacity and economic behavior*. (pp. 127-146). Routledge.
16. Greene, J. E. (2018). *Macroeconomic Analysis and Policy: A Systematic Approach*. *World Scientific Books*.
17. Onaran, O., Oyvat, C., & Fotopoulou, E. (2018). *Gendering macroeconomic analysis and development policy: the role of labour market and fiscal policies for gender equitable development*. Working Paper, University of Greenwich, Greenwich Political Economy Research Centre (GPERC).