

# Impact of Macroeconomic Policy on the Development of the Construction Market. Study of the Example of Bulgaria

Aneta Marichova  
 PhD, Associate Professor of Economics  
 Social Sciences Department  
 University of Architecture, Civil Engineering and Geodesy, UACG  
 Sofia, Bulgaria

**Abstract:-** The construction plays a key role and importance for the economic development of each country, but on the other hand, its development is primarily a consequence of the general economic development of the country. Construction activity is carried out cyclically, with constant ups and downs (function of the cyclical development of the economy), which are influenced and determined by the expectations of the business and households, from their confidence in income stability, employment, from the level of interest rate and government programs and opportunities for construction of large infrastructure sites. Given the volatility of the construction market and the strong macroeconomic effect of its development it is subject to a specific macroeconomic policy. The following questions arise in this connection, which are the subject of study: what is the influence of macroeconomic policy on the development of construction, how they should be combined fiscal and monetary policy to reduce cyclical fluctuations in the construction market and ensure long-term sustainable development?

**Keywords:-** Construction Market, Fiscal Policy, Interaction Between Fiscal and Monetary Policy Macroeconomic Policy, Monetary Policy.

## I. INTRODUCTION

Construction is structure-defining industry in any economy, affecting overall economic development, directly (through a high relative share of GDP, added value and a large number of construction companies providing employment) and indirectly along the lines of cross-industry links (high cost of purchase of raw materials, materials, electricity and other components used throughout the design, construction, maintenance and operation process). Any decline or upswing in the construction industry causes major changes in the employment and activity of companies and their profit potential, especially in the group of small and medium-sized enterprises, affects the market of construction materials, the activity of the companies that manufacture them, etc. The industry plays a key role and importance for the economic development of each country, but on the other hand its development is

primarily a consequence of the general economic development of the country (being built to meet some demand). Construction activity is carried out cyclically, with constant ups and downs (a function of cyclical economic development), which are influenced and determined by the expectations of business and households, their confidence in income stability, employment, from the level of interest rates and the government programs for construction of large infrastructure sites.

To trace the link between the cyclical development of the economy and the development of the construction market will make a brief overview of the dynamics of construction activity in the European Union (EU) and Bulgaria in the pre-crisis period (1990-2008) and the crisis period (2008 -2014) based on statistical data.

EU statistics report a continuous 16-year period of recovery and boom in economies (as a result of globalization, the deployment of information technology, environmental protection requirements) and respectively strong development of construction in the period 1990 – 2006 [1]. During this period, residential construction has a steady upward trend, and non-residential construction began its growth in the mid 90's and recorded a stabilization and growth of 9.8% in 2006-2008. Spain has the highest growth rate, with an average of around 16.1%, followed by Italy and the United Kingdom.

In 2008 analysts' expectations for a decline in construction in the EU are justified (the decline reached 32.3% at the end of the year) as a result of the onset of the global financial and economic crisis. The largest is the decline in construction activity in Spain and the weaker in Italy. In the second and third quarters of 2008, statistics show a slight decline in construction in Germany and France, which have steadily increased in the period 2004-2008. In the United Kingdom, since 2008, the trend has been towards stabilization, growth arrest, but decline is also avoided. The decline in construction in the EU countries from the end of 2008 and the beginning of 2009 leads to a decrease in employment in the sector by 8.8% in 2009 compared to 2008. In the following 2009 and 2010 this decrease continues, being offset somewhat by large state, infrastructure sites, which are beginning to be realized in

almost all countries in the community. These actions provide maintaining economic activity and employment in the construction sector at an acceptable level.

In Bulgaria, the beginning of the 90s of the 20th century was characterized by the accelerated development of all industries, incl. and construction. The deep economic crisis of the mid-1990s into the 20th century combined with hyperinflation leads to massive bankruptcy of a large number of construction companies and a sharp decline in construction activity as a whole. The real recovery and growth of the construction market starts with economic stabilization, the introduction of the currency board in 1997, is a function of the economic recovery and the optimistic expectations of economic entities (households and investors). In the period 2001-2005, construction growth averaged about 15-20% annually, particularly high (over 30% annually) in 2006 and 2007. The upward development of construction during this period is result of active lending activity of banks, optimistic expectations of households, investors and companies, the high economic growth in the country (on average 6-8% annually), increasing employment and incomes, growing foreign and investment.

The active processes in the development of the economic crisis in the construction sector of Bulgaria are beginning in mid-2008 (even before there is external financial pressure, which exerted its influence in the fourth quarter of 2008), after the market's economic growth peaked in mid-January 2008. [2]. The period between the two dates is characterized as a period of inertia and resistance to the crisis processes, which is the result of the work of construction companies on financially secured projects and tasks that started before the peak moment of economic growth in this market. The main indicator for the contraction of construction activity is the decrease of 27% building permits issued in 2008 compared to 2007 [3]. As construction is an industry with a long time lag between the investment decision and the realization of the idea / project, many construction sites begin their implementation in 2005 and 2006 and the first months of 2007, when the indications of the coming the financial crisis is still not very clear in Bulgaria. The desire of many investors and entrepreneurs for quick and easy over-profits results in continued pouring of funds on this market in 2007 and early 2008, which subsequently (in 2009-2012) created the conditions on the action of competitive forces and reduced transaction prices. A strong catalyst for the contraction of construction activity in Bulgaria was the start of the global financial crisis at the end of 2008, which has a strong negative impact on bank lending (shrinking loans, rising interest rates) and sets new and serious problems for investors. The pressure on them is great because the project is implemented with borrowed funds and therefore both at the entrance and at the exit they have significantly limited financial resources.

In 2009 in the economy are observed periods of recession and overall slowdown economic growth rate and reported an overall decline in construction activity by 8.6% (in residential construction market fell by 14.9%). Outflow

of foreign investors (down 68% in 2010) led to a 39% drop in construction in 2010 compared to 2009. In 2010 in the building construction market the decline is 49% and there is only a growth in the civil engineering market, to which direct many construction companies [4]. In 2011 and 2012, the negative processes in the sector continued, with an average decline of 4.1% in EU countries, which was particularly strong in Slovenia (-13.5%), Italy (-9%), Greece (-6.1%), Spain and Hungary (-6.9%), the Czech Republic (-11.5%) and others. In 2012, the decrease in construction output in Bulgaria was 42% compared to 2008 levels (when it reached a peak in the sector), and the total number of employed in the sector decreased by 41% compared to 2009. Building construction decreased by 53% compared to the first quarter of 2008, when it peaked. Expectations civil engineering and major infrastructure projects / sites, funded by the EU and the government to stimulate the construction industry and by the action of multiplier effect to ensure recovery and accelerated economic development as a whole are not justified.

In 2014 (and in 2015) revenues from the residential construction market declines by 73% compared to the pre-crisis period, and in the non-residential construction market (office buildings, hotels and holiday villages) there is a decrease of 8.0% compared to 2013. Housing loans are still available for households with incomes that are higher than average. Surveys show a high proportion of vacant land in completed office and commercial buildings and reducing investment interest in this market segment. In the non-residential construction market has weak growth in late 2015 and 2016, with the leading segment being industrial construction, and there is also an increase in construction in the health, education and agriculture sectors. During this period, the civil construction market is of particular importance for stabilizing (reducing the decline) of the construction industry and the economy as a whole, accounting for more than half of the total sales revenues of construction companies.

Factor for the recovery of the construction market is a banking policy related to a reduction in the interest rate on loans for new housing and non-residential construction, as well as public procurement for road construction and maintenance, integrated plans for the development of large cities, the renovation of residential buildings, the development of public-private partnerships to build social infrastructure. However, there are still no qualitatively new, significant private investments related to the development of sustainable construction there is a lack of effective absorption of European funds under some programs. The tendency of low growth remains of lending to small and medium-sized companies and increase in non-performing loans. According to the managers of construction companies, the problems in the industry are the result mainly from the deteriorating economic environment - decline in foreign investment, reduced propensity to invest, due to reduced expected returns, limited access to credit, limited financial resources of the public sector, which generally lead to market stagnation.

After record lows in terms of construction volumes, the construction market has a slow return to positive values in 2016-2017 and accelerated development in the period

2018-2020, after which a new recession is expected (Fig. 1) [5].

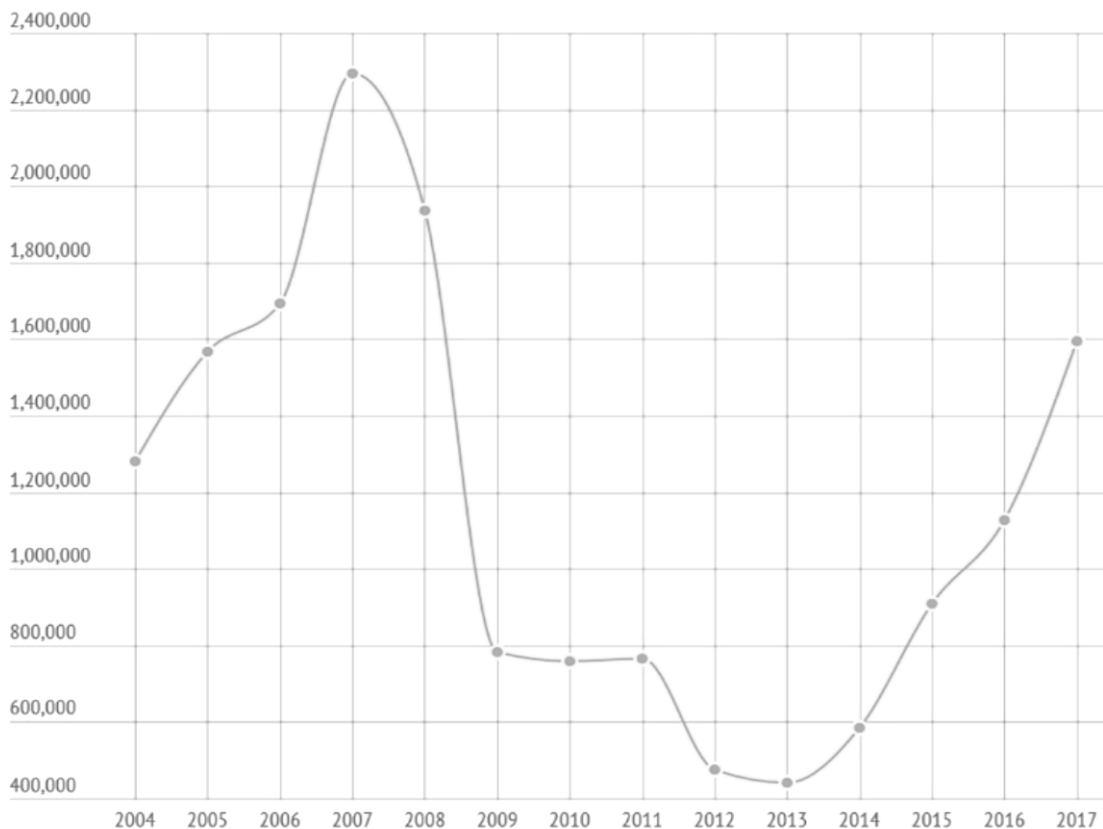


Fig. 1:- Dynamics of construction and assembly activities for the period 2004-2017 (based on square meters built-up area)

The brief overview of the development of construction in the EU and Bulgaria between 1990 and 2016, which includes both upward and downward phase of the business cycle shows the extremely dynamic, upward development and the extremely large decline in this market, function of the cyclical development of the economy. Economic fluctuations constantly accompany the industry, but due to their specific features (long construction period, seasonal, annual fluctuations in activity), construction usually enters the crisis first and exits it last. Construction downturn is usually very deep and upward very high. This means that the construction cycle is much more amplitude and shorter in duration, compared to the overall business cycle and cyclical fluctuations in other industries, and long-term growth is lower than overall economic growth [6]. The strong dependence of the development of the industry on the general economic development means that it takes time to transfer the positive impulses from the development of other industries to the construction and vice versa - the contraction of the economy immediately reflects and shrinks the activity of the construction market (reduce orders).

Given the volatility of the construction market the strong macroeconomic effect of its development and features of cyclical development it is subject to a specific macroeconomic policy. It includes both fiscal and monetary policy, aimed at stimulating activity on the construction market and which has

positive direct and indirect effects on overall economic development.

The following questions arise in this connection, which are the subject of study: what is the impact of macroeconomic policy on the development of construction, how should fiscal and monetary policy be combined to reduce cyclical fluctuations in the construction market and ensure long-term sustainable development?

## II. THEORETICAL FRAMEWORK OF THE STUDY

Each country's macroeconomic policy includes fiscal and monetary policy and has the following objectives: reducing business cycle fluctuations, stimulating economic growth and production, reaching potential GDP and natural unemployment, reducing income inequality [7].

Fiscal policy is a set of activities of the state (the government of the country) aimed at overcoming of inflation and recessionary gaps in GDP and stabilizing economic development.

For this purpose, the state budget (the ratio of tax revenue to government expenditure) is used as an instrument for influencing aggregate demand (AD), aggregate expenditure (which includes consumption expenditure, government spending, net exports, and the most dynamic component - investment, which are a function of interest rate) and aggregate supply (AS). The main objective of fiscal policy is through the state budget the economy of a country move in the opposite direction to objective economic processes, i.e. it is clearly anti-cyclical.

Monetary policy is a set of measures and actions aimed at maintaining the equilibrium on the money market, a stable financial system and ensuring the overall macroeconomic equilibrium. The supply of money is fixed by the Central Bank over a period of time and the demand of money is inverse of the interest rate level and is a function of the level of income - real GDP. The equilibrium interest rate determined by the equilibrium of the money market (equalization of demand and supply quantity of real money) influences and determines the corresponding level of planned investments, the level of total expenses, income and GDP.

When the state wants to stimulate economic activity (there is a recessionary gap in the country, the real GDP created is below the potential GDP), it pursues expansionary fiscal policy, by increasing government spending (education, healthcare, social activities and infrastructure) and/or reducing taxes, which raises incomes (taking into account the impact of the respective multipliers) and stimulates household demand, increases the profit of the firms and stimulates their investment activity. If there is an inflation gap in the economy (real GDP generated is above potential GDP), it is "cleared" by a restrictive fiscal policy that involves increasing taxes, and / or reducing government spending, which reduces economic activity and production in the country, decreases GDP, employment and increases unemployment.

Depending on the state of the macroeconomic environment the specific monetary policy is also determined. When the Central Bank wants to stimulate economic activity, it pursues expansionary monetary policy (in a recessionary rupture), which aims to increase money supply in the economy and reduce their price - the interest rate and vice versa. In the event of an inflationary gap, the Central Bank pursues a restrictive policy aimed at reducing money supply and raising interest rates.

However, in pursuing fiscal policy significant side effects are observed that weaken its effectiveness.

When pursuing an expansionary fiscal policy to stimulate production and increase employment, the end result is an increase in income and GDP. Increased income leads to increased demand for money and a higher equilibrium interest rate for fixed money supply. A higher interest rate reduces the propensity to invest, reducing overall spending and establishing a new macro-balance at a lower level of real GDP, which diminishes the effect of expansionary fiscal policy. Especially strong is crowding-out effect - reduction of private investment in actual production (as a result of increased

interest rates, in pursuing expansionary fiscal policy and accumulation of budget deficits) and redirecting funds to the purchase of risk-free and profitable government securities, which leads to a contraction in aggregate demand. In addition, the higher interest rate increases the demand for local currency and increases its exchange rate. The higher the local currency price reduces exports, and at the same time increasing imports, leading to a decrease in net exports and ultimately to a reduction in aggregate costs, a lower level of real GDP and a new equilibrium in the product market. These are unwanted side effects of expansionary fiscal policy, the result of evolving money market processes, a reaction to changes in the product market. In the next phase, reduced income also reduces the demand for real money, which directly affects the equilibrium of the money market, reducing the interest rate on fixed money supply. The new equilibrium in the money market (at a lower interest rate) creates incentives for more active investment activity of companies, which increases the total costs and GDP, which allows to achieve the goals set by the state - to stimulate economic growth and increase employment. If the overall macroeconomic equilibrium reached is above the level of potential GDP and there is a boom in the country and rising inflation (inflation gap), the state will pursue restrictive fiscal policies by reducing government spending and / or increasing taxes. These actions lead to a reduction in aggregate costs and establishing a new expenditure equilibrium in the product market at a lower level of income (GDP). A restrictive fiscal policy pursues the same processes on both markets (as with expansionary fiscal policy), but with the opposite sign for their adjustment and reconciliation.

Therefore, there are macroeconomic dependencies that start from the product market, pass through the money market and return to the product and money markets again to establish the overall macroeconomic equilibrium. However, the real economy is having a difficult and slow transition and adjusting to these different (higher or lower) levels of GDP and, accordingly, different levels of macro-balance. The analysis shows that the actions of the state and its fiscal policy need to be supported and coordinated with the respective monetary policy.

If the overall macroeconomic equilibrium is below the level of potential GDP and there is a recession (recessionary gap) and high unemployment in the country, the Central Bank should pursue expansionary monetary policy in order to stimulate economic growth, increase GDP and employment. It includes a reduction the reserve ratio for commercial banks, a reduction in the discount rate and purchase of securities on the open money market and has the ultimate effect of increasing the money supply. As a result (at a given demand of money, a function of the level of real GDP) a lower level of equilibrium interest rate on the money market is established. The lower interest rate leads to higher investments, net exports and the aggregate expenditure (taking into account the impact of the respective multipliers) and higher levels of income and equilibrium real GDP. The goals of expansionary monetary policy have been achieved. Higher income, however, will increase demand for money and will trigger a reaction to the money market and a new equilibrium - an increase in interest

rates, which suppresses economic activity, reduces investment, net exports, aggregate expenditure and determines a lower level of equilibrium real GDP in the next stage. These changes in the product market will also lead to a reaction and changes in the money market - reducing the demand for money and establishing a new equilibrium at a lower interest rate, which satisfies the fixed supply of money by the Central Bank and the demand for money determined at the appropriate level of income. Thus, the overall macroeconomic equilibrium is restored.

If the overall macroeconomic equilibrium is above the level of potential GDP and inflation is rising in the country, then the Central Bank should pursue restrictive monetary policy (increasing the reserves ratio for the Commercial Banks, increasing the discount rate and selling securities on the open money market). The purpose of this policy is to reduce money supply and, given a given demand for money (a function of real GDP level), to establish a higher level of equilibrium interest rate, which will lead to a decrease in economic activity and a "cooling" of the economy. A restrictive monetary policy pursues the same processes in both markets (as in expansionary monetary policy), but with the opposite sign in order to adjust and harmonize them.

For these reasons, a combination of fiscal and monetary policies should always be put into practice. Choosing the most appropriate combination for macroeconomic stability is a function of a correct macroeconomic forecast, taking into account all the factors that affect the elements of aggregate expenditure and production in the country, as well as the impact and the degree of change in money demand, investment and net exports (elasticity) as a result of a corresponding change in the interest rate.

### **III. INTERACTION OF FISCAL AND MONETARY POLICY AND ITS IMPACT ON THE CONSTRUCTION MARKET**

As mentioned, fiscal policy is implemented through the state budget, the system of state expenditures and taxes. By definition (but not in recent years) in the face of recession, each country pursues an expansionary fiscal policy, increasing its government expenditure and/or reducing taxes to stimulate economic activity. As a rule, a large part of the increase in government expenditure is directed towards the construction of infrastructure, the improvement and renovation of the urban environment, the construction of public sites, etc., i.e. they are aimed at developing construction activities. The additional government expenditures on the civil construction market, through the action of the budget multiplier, aim to increase employment, income, domestic consumption and demand and, along the realized multiplier effect, stimulate not only the construction but also the economy as a whole. This is the short-term effect that any country with expansionary fiscal policy is pursuing. Even more significant is the long-term effect of realizing infrastructure projects, which translates into a reduction in company costs and time for the transportation of passengers and goods, and an increase in the additional benefits to society as a whole. The 2008-2012 financial crisis has caused a number of governments to actively use these

instruments to stimulate the country's construction and economy.

Fiscal actions of government in Bulgaria in the period of the global economic crisis are not very different from those in other countries [8]. The fact is that within the EU, Bulgaria has one of the lowest levels of profit tax and income tax so no changes can be expected in this direction to reduce them for economic incentives. Regarding the state expenditures, there is an active involvement of the state in providing financial resources for the construction of large-scale infrastructure sites. As a relative share of all budgetary expenditures, the expenditure on these activities has more than tripled in the period 2012-2014, compared to 2010. Due to budget constraints in a currency board economy, on the one hand, and on the other, the requirements for the size of the EU budget deficit, the objective is that the funds invested in infrastructure be mainly from European funds and the corresponding co-financing (between 15-20%) from the state. In other words, in times of crisis, with the dwindling activity of private investors in the residential (residential and non-residential) construction market, 80% of orders in the sector come from a single source - from one source - the state funded by EU funds. This situation proves the absence of other alternatives for construction companies and the exclusive role of the state as the sole contracting authority, through fiscal policy, to stop the decline and provide a revival in the construction market. Any reduction in government spending (as well as delayed absorption of EU funds from the state and municipalities) leads to a reduction in the value and volume of public procurement in the sector. This slows down the implementation of a number of large-scale infrastructure projects that, in times of crisis, ensure the work of large firms and the survival of smaller construction firms working as contractors and subcontractors.

In pursuing the expansionary fiscal policy of the construction market, by increasing government spending in the construction of infrastructure, the main objective is to achieve a multiplier effect and revitalization of the whole economy. However, despite the "cash flow" in construction, it may continue to stagnate and fall further, as is the situation on the construction market in Bulgaria in the period 2008-2014.

By definition, the multiplier effect is the result of additional funds that the state invests in various sites of strategic, national importance. However, where these costs are made at the expense of reducing other budgetary expenditure (unemployment benefits, social expenditure), in order not to increase the budget deficit and violate currency board rules and EU requirements, the internal demand and consumption of other sections of the population is shrinking and this in general has a negative effect on other sectors of the economy, which also shrink their business and reduce sales. This means that with an average propensity of 0.6 and almost the same value of the marginal propensity (as they are in Bulgaria), there is generally zero net effect of the increase, or more precisely, redistribution of government expenditure from one activity to infrastructure and other construction activities. And it should be remembered that the development of construction is a function of domestic demand and the overall macroeconomic

development. In addition, the data show that due to the delayed absorption of money from European funds, the state commits itself not to 15% co-financing, but often to more than 30-40%, only to start an infrastructure project. Given the limited possibilities of the state budgets, the higher state expenditures today in a large infrastructure object then lead to late payments of contracting and subcontracting companies and respectively delayed wages and social security, and as a result, increasing household debt (to cover running costs or debt obligations). These are factors that do not allow the full multiplier effect of increased government spending on infrastructure construction to emerge and stimulate the economy in the face of increased demand. The end result shows that expansionary fiscal policy ensures sustained positive economic growth in the country and weaker decline in construction as a whole, thanks though limited market growth of civil construction. In addition, there is often a delay in project implementation due to the limited resources and capacity of construction companies to carry out the activities, as well as sufficient examples of poor quality activity, which raises doubts about transparency of the auctions conducted, the choice of contractor and the rational use of European funds.

The 2008 financial crisis is essentially a crisis of demand and confidence in banks. Therefore, a stronger macroeconomic effect on the development of construction and the economy would have monetary measures and actions, through which to restore confidence in financial institutions. They are primarily about reducing interest rates, which would encourage investors, businesses and households to borrow and invest in construction. In the context of a currency board, the functions of the Central Bank and its monetary policy, respectively, are severely restricted. It has no right to pursue monetary policy (with the instruments mentioned above) and provide stability, and is therefore pro-cyclical - enhances cyclicity in the economy greatly increasing both the boom and the recession. There is strong credit expansion on the rise, overheating the economy and the construction market, speculatively increasing real estate prices (2006-2008). In a

recession and a downturn, there is a strong outflow of capital, an increase in the interest rate, which severely limits loans and investment in the construction market. The high risk of the economy of one country (Bulgaria), as well as the high corporate risk, makes banks particularly cautious when granting loans related to construction activity in recent years. The reasons are mainly related to the specifics of the construction market - high value, high risk and long period of return, and above all, the lack of quality projects that meet the requirements of sustainable construction. Practice shows that banks are inclined to lend effective projects with proven expected benefit to society as a whole.

Increasing the share of outstanding loans, growing debt between companies and also to financial institutions are also factors that make them very careful about the decisions they make. The high guarantees that banks in Bulgaria require when lending, combined with the relatively high interest rate (compared to other European countries), make it almost impossible, especially for smaller companies, to reach fresh financial resources. This should be taken as an absolutely necessary precautionary financial measure to ensure and maintain the financial stability of the country, as well as an important factor in attracting foreign investors, which the country, particularly the construction industry, is in dire need of. The decrease in the interest rate (especially the real interest rate) in 2016-2018, the result of a common monetary policy in the EU is the main factor for the revival of the construction market in all its segments and mainly in the building construction market.

The interaction of fiscal and monetary policies and the impact on the construction market (taking into account the specifics of the two market segments - the residential and non-residential construction and civil engineering markets) is described in detail in Table 1 and Table 2 (Here Table 1 and Table 2.).

<b>Expansionary fiscal policy</b>	<b>Restrictive fiscal policy</b>
<b>1. A problem in the economy</b> Decline in the economy and the construction market, high unemployment.	<b>1. A problem in the economy</b> Boom, peak in the economy and in the construction market, rising inflation (overheating).
<b>2. Purpose</b> Increase in aggregate expenditure, employment and GDP to the level of potential GDP, which is also a factor in the recovery in the construction market.	<b>2. Purpose</b> Reducing aggregate expenditure, employment and GDP to the level of potential GDP, which is also a factor in the contraction in the construction market.
<b>3. Mechanism</b> 1) Increasing government spending, taking into account the performance of the budget multiplier. 2) Reduction of taxes, taking into account the performance of the tax multiplier.	<b>3. Mechanism</b> 1) Reduction of government spending, taking into account the performance of the budget multiplier. 2) Increasing taxes, taking into account the performance of the tax multiplier.
<b>4. The effect</b> 1) A major part of the increased state expenditures is directed to the construction of infrastructure on the civil engineering market. The aim is to increase employment, income, domestic consumption and demand through the action of the budget multiplier and through the realized multiplier effect to stimulate not only the construction but also the economy as a whole. 2) Reduction of taxes and tax breaks for construction companies, which through the action of the tax multiplier should have a positive effect on the development of the construction market and the economy as a whole. 3) Increased income generates optimistic investor expectations, which is a factor for revival in the building (residential and non-residential) construction market. 4) Increased income and high employment tends to increase demand for goods with elastic demand (housing), which is a factor in the revival of the new residential construction market.	<b>4. The effect</b> 1) The reduction in government spending on the construction of infrastructure in the civil engineering market leads to a decrease in employment, income, domestic consumption and demand and through the realized multiplier effect, shrinks not only the construction but also the economy as a whole. 2) The increase in taxes, taking into account the performance of the tax multiplier, should have a corresponding restrictive effect on the construction market and the economy as a whole. 3) Decreased income creates pessimistic expectations for investors, which is a factor for contraction in the building (residential and non-residential) construction market. 4) Reduced income and low employment tends to reduce demand of goods with elastic demand (housing), which is a factor in the contraction of the new residential construction market.
<b>5. Side effects</b> 1) Increase in the interest rate as a result of the expansionary fiscal policy (crowding-out effect) leads to a contraction of private investment in the building (residential and non-residential) construction market. 2) The increase in the interest rate as a result of the expansionary fiscal policy leads to a decline in household loans, which is a factor for contraction in the building (residential and non-residential) construction market. 3) Increased income increases demand for money and interest rates, which further reduces private investment in the building (residential and non-residential) construction market. 4) There are internal lags - delays between the time in which the government decided to increase spending on infrastructure sites, absorption of EU money and implementation of sites.	<b>5. Side effects</b> 1) The reduction of the interest rate as a result of the restrictive fiscal policy leads to an increase in private investment in the building (residential and non-residential) construction market. 2) The reduction of the interest rate as a result of the restrictive fiscal policy leads to an increase of household loans, which is a factor for development in the building (residential and non-residential) construction market. 3) The decrease in income also leads to a decrease in demand for money and interest rates, which stimulates private investment in the building (residential and non-residential) construction market. 4) Internal lag - delays between the time when the government decides to cut costs in infrastructure and the need to complete already started large sites.
<b>6. Counteracting mechanisms</b> 1) The action (principle) of the accelerator. 2) Combining expansionary fiscal policy with appropriate monetary policy.	<b>6. Counteracting mechanisms</b> 1) The action (principle) of the accelerator. 2) Combining restrictive fiscal policy with appropriate monetary policy.

Table 1:- Impact of fiscal policy on the construction market (the building construction market and civil engineering market) and the need for interaction between fiscal and monetary policy

<b>Expansionary monetary policy</b>	<b>Restrictive monetary policy</b>
<b>1. A problem in the economy</b> Decline in the economy and the construction market, high unemployment.	<b>1. A problem in the economy</b> Boom, peak in the economy and in the construction market rising inflation (overheating).
<b>2. Purpose</b> Increasing of the money supply (taking into account the effect of the monetary multiplier), lowering the interest rate, increasing the investments, aggregate expenditure, employment and GDP to the level of potential GDP, which is also a factor for the recovery in the construction market.	<b>2. Purpose</b> Reduction of the money supply (taking into account the effect of monetary multiplier), increase of interest rate, decrease of investments, aggregate expenditure, employment and GDP to the level of potential GDP, which is also a factor for the contraction in the construction market.
<b>3. Mechanism</b> 1) A reduction the reserve ratio for commercial banks. 2) A reduction in the discount rate. 3) Purchase of securities on the open money market.	<b>3. Mechanism</b> 1) Increasing the reserves ratio for the Commercial Banks. 2) I increasing the discount rate. 3) Selling securities on the open money market.
<b>4. The effect</b> 1) Increasing the money supply, reducing the interest rate, increasing the private investment in the building (residential and non-residential) construction market. 2) Increased income creates optimistic expectations of investors, which is a factor for the revival in the building (residential and non-residential) construction market. 3) Increased income and high employment tend to increase the demand of goods with elastic demand (housing), which is a factor in the boom in the new residential construction market. 4) Increased income and high employment increase tax revenue in the state budget, which is a factor in increasing government spending in infrastructure construction.	<b>4. The effect</b> 1) Decrease in the money supply, increase of the interest rate, decrease of private investments in the building (residential and non-residential) construction market. 2) Reduced income creates pessimistic expectations for investors, which is a factor in the contraction in the market investment in the building (residential and non-residential) construction market. 3) Reduced income and low employment tend to reduce the demand of goods with elastic demand (housing), which is a factor in the new residential construction market. 4) Reduced income and low employment reduce tax revenues in the state budget, which is a factor in reducing government spending in infrastructure construction.
<b>5. Side effects</b> 1) The danger of "overheating" the economy and rising inflation. 2) The increase in GDP (income) leads to increased demand for money and a corresponding increase in the interest rate, decrease in private investment in the building (residential and non-residential) construction market, which reduces the effect of cheap money" policy.	<b>5. Side effects</b> 1) The danger of stagflation – increasing unemployment, shrinking production and rising price levels. 2) The decrease in GDP (income) leads to reduced demand for money and a corresponding reduction in the interest rate, increased private investment in the building (residential and non-residential) construction market,, which reduces the effect of "expensive money" policy.

Table 2:- Impact of monetary policy on the construction market (the building construction market and civil engineering market) and the need for interaction between fiscal and monetary policy

The analysis shows that fiscal policy has a stronger impact on the civil engineering market and monetary policy has a stronger impact on the building (residential and non-residential) construction market. The side (negative) effects of fiscal policy, which strongly affect the building construction market, are reduced when combined with an appropriate monetary policy. Effective monetary policy, in turn, can have a beneficial effect on fiscal policy and its ability to achieve the desired goals (revitalization, recovery or contraction) in the civil engineering market.

Realizing the objectives of macroeconomic policy by skillfully combining fiscal and monetary policies ensure economic growth and reduce cyclical fluctuations in the economy, and therefore have an indirect positive impact on the development of construction, which is a function of the overall economic development of the country. At the same time, however, it should be noted that macroeconomic policies (fiscal and monetary policy) in each country have a stimulating role in construction over a short period of time.

Following its stabilization, signs of a recession in the industry are again emerging in a number of countries [9].

Therefore, there are two stages in macroeconomic policy that affect construction: the first stage in which the state participates and influences directly in the industry by increasing government spending on construction of infrastructure (civil engineering market), or reducing taxes, leading to recovery and the multiplier effect, which stimulates the whole economy, and Central Bank reduces interest rate in order to stimulate credit and investment activity in the building construction market. These actions ensure the stabilization of the activity of the industry, limiting the decline and survival of many small businesses, such as contractors and subcontractors of government, public procurement. In the next stage, the state limits its direct participation and provides conditions for stimulating and protecting the business, creating an institutional framework and environment for technological development, encouraging entrepreneurship, stimulating investment in scientific research. Through a coherent



national policy the state sets development priorities of innovation potential, favors innovation activity of research, education and business units, coordinate their activities to make the national economy more competitive. Therefore, macroeconomic policy to stimulate construction must be both in line with increasing demand and consumption, the result of higher employment, income, and creating favorable conditions for innovation and investment, i.e. change in supply.

As a rule, short-term government policies and measures, both fiscal and monetary, aim to stimulate demand (by increasing government spending in public facilities) and reduce the impact of cyclical fluctuations in the construction market, stimulating private and investment demand and providing opportunity the private sector to quickly return to the market as a major player. In the new dynamic, the more complex problem is how these actions will stimulate supply changes over the long term. The change in supply is mainly a function of increased government spending and investment in research and education, support for innovation in small and medium-sized enterprises, protection of intellectual property, building effective public-sector linkages, development of standards, requirements to ensure sustainable development and sustainable construction. This direct state policy can ensure the development of the intangible assets of the construction company, i.e. learning and development of knowledge, research and development, an effective system of additional incentives and staff motivation, support for complementary and interconnected activities in the vertical supply chain, venture capital in small innovative companies and etc., which is an important condition for long-term growth and competitive advantage for firms.

The role of the state in realizing the principles of sustainable construction is especially important because:

- 1) The state (public sector) is a major player in the construction market (especially in civil engineering market) and its main task is providing optimal combination of input resources and efficient the use of technology, thereby reducing losses and increase the benefits to society.
- 2) The state develops basic policies, programs, that directly and indirectly affect construction, but at the same time going beyond the industry, such as energy efficiency issues, waste management and climate change.
- 3) The state is a major customer in the construction market. In your role as a client the government can make the most progress in the implementation of the sustainable development program because it is responsible for the construction of public buildings and infrastructure (80% of construction contracts come from one source - the state and municipalities, mainly funded by the EU).

The main task for the state as an economic entity, which must ensure sustainable development is the creation of the necessary state standards and requirements for sustainability construction, as well as mechanisms, models for renovation, guarantee funds, regulatory framework

fiscal incentives for investors and consumers of sustainable construction products.

#### IV. CONCLUSION

Instability in the construction market and the strong the macroeconomic effect of its development necessitate it be subject to a specific macroeconomic policy. In this regard, the subject of study in the proposed article is the impact of macroeconomic policy on development of construction and the necessary interaction of fiscal and monetary policy in order to reduce cyclical fluctuations in the construction market and ensure long-term sustainable development.

On the basis of statistical data the author analyzes the dynamics of construction activity in the EU and Bulgaria in the pre-crisis period 1990-2008 and in the crisis period (2008 -2014) and proves the extremely dynamic, upward development and extremely large decline in this market, a function of the cyclical development of the economy.

Economic fluctuations constantly accompany the industry, but because of its specifics, construction as a rule enters the crisis first and last comes out of it. The construction cycle has a much larger amplitude and shorter duration (compared to the overall business cycle and cyclical fluctuations in other industries), and long-term growth is lower than the overall economic growth, which necessitates an effective macroeconomic policy of the construction market.

The author makes a brief analysis of macroeconomic policy, which by definition includes fiscal policy (influence through government expenditure and/or taxes), and monetary policy (influence through money supply and interest rates) and its results. Observed side effects in conducting fiscal or monetary policy, which weaken their effectiveness can be reduced by applying a combination of them, a function of a correct macroeconomic forecast, taking into account all the factors that affect the elements of the aggregate expenditure and production in the country and the specifics of the relevant market.

In a crisis, each country pursues an expansionary fiscal policy, such as by increasing government spending in the construction of infrastructure and the multiplier effect seeks to provide recovery of the construction market and the economy. But in the last years due to strict requirements on the size of the budget deficit (for EU Member States), budget constraints in a currency board economy (Bulgaria), the effect of this policy is not particularly strong. Therefore, a stronger macroeconomic effect on the development of construction and the economy (especially in a crisis of demand and confidence in banks, such as the 2008 crisis) would have monetary measures and actions, through which to restore confidence in financial institutions. The analysis of the impact of macroeconomic policy on the construction market, taking into account the specifics of the two market segments, allows the author to conclude that fiscal policy has a stronger impact on the civil engineering market (and

negatively affecting the building construction market) and monetary policy has a strong impact on the building (residential and non-residential) construction market, which proves the need for a good combination.

At the same time, it should be noted that macroeconomic policy (fiscal policy of the state through the construction of infrastructure facilities and public buildings and the monetary policy of the Central Bank) in each country, have a stimulating role for construction over a short period. After its stabilization, in many countries there are again signs of a recession in the industry.

Therefore, the author's conclusion is that the macroeconomic policy of the construction market should include:

- 1) Short-term policy. The state is committed with direct market participation through fiscal and monetary actions, which are intended to stimulate demand (by increasing government spending on public sites and increase in loans under favorable conditions) and to mitigate the effects of cyclical fluctuations in the construction market, stimulating private and investment demand and enable the private sector quickly return to the market as a major player.
- 2) Long-term policy of the state, which creates conditions for change in supply, by stimulating innovation and investment and development of the intangible assets of the construction company (learning and knowledge). Particularly important here is the role of the state in ensuring the sustainable development of construction through the creation of the necessary state standards and requirements for sustainable construction, as well as mechanisms, models for renovation, guarantee funds, regulatory framework fiscal incentives for investors and consumers of sustainable construction products, which is ultimately a factor in ensuring long-term growth and competitive advantage for businesses.

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