THE MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN

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INTERNATIONAL GRADUATE AND DOCTORATE CENTER

MASTER DISSERTATION

ON THE TOPIC

"INFLATION AND GROWTH SOME EMPIRICAL RESULTS FROM EUROPEAN UNION COUNTRIES"

Alizada Ismayil Kamil

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MASTER DISSERTATION

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"INFLATION AND GROWTH SOME EMPIRICAL RESULTS FROM EUROPEAN UNION COUNTRIES"

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Elm andı

Mən, Əlizadə İsmayıl Kamil oğlu and içirəm ki, "Inflation and growth some empirical results from European Union countries" mövzusunda magistr dissertasiyasını elmi əxlaq normalarına və istinad qaydalarına tam riayət etməklə və istifadə etdiyim bütün mənbələri ədəbiyyat siyahısında əks etdirməklə yazmışam.

"AVROPA BİRLİYİ ÖLKƏLƏRİNDƏN BƏZİ TƏHLÜKƏSİZLİK NƏTİCƏLƏRİ"

XÜLASƏ

Tədqiqatın aktuallığı: İnflyasiya ya valyuta təklifində və ya qiymət mərhələlərində bir yüksəliş demək ola bilər, yəni pul təklifi gücləndirildiyi təqdirdə bu, özünü daha böyük qiymət mərhələlərində aşkar edəcəkdir. Bu nəticə etibarilə əhali və ticarət qurumları ilə birlikdə iqtisadiyyatı dağıdıcı bir yolla təsir edir, bu səbəbdən hökumətlər büdcə və pul siyasəti yaratmaqla inflyasiyanı aşağı səviyyədə saxlamaq üçün böyük səylər göstərirlər. İnflyasiya və iqtisadi istehsal arasındakı əlaqə böyük rol oynayır.

Tədqiqatın məqsədi: Tədqiqatın əsas hədəfləri inflyasiyanın iqtisadiyyata təsirlərini təhlil etmək, inflyasiya və iqtisadi artım arasındakı əlaqəni dərk etmək və Avropa Birliyi ölkələrində inflyasiya və böyümə.

İstifadə olunmuş tədqiqat metodları: Tədqiqat bu işin məqsədlərini izah etmək üçün tətbiq olunan müxtəlif alətləri və yanaşmaları əhatə edir. Tədqiqat suallarını araşdırmaq və araşdırmaq üçün kitablar, veb yerlər, məqalələr, hesabatlar və statistik məlumatlardan ibarət olan zəngin məlumat mənbəyindən istifadə olunur. Tədqiqat zamanı inflyasiya və iqtisadi artımla əlaqəli çox sayda iqtisadi mənbəyə nəzər yetirildi.

Tədqiqatın informasiya bazası: Nəticədə, reqressiya əlaqəsini, korrelyasiya təhlilini və digər ekonometrik alətləri həyata keçirəcəyik. AB-də inflyasiya ilə iqtisadi böyümələr arasında mənalı bir əlaqəni tapmaq üçün SPSS, E-baxışlar kimi iqtisadi proqram istifadə ediləcəkdir.

Tədqiqatın məhdudiyyətləri: Bütün iqtisadi göstəricilər AB ölkələrinin sayı və zaman baxımından məhdudiyyətlər nəzərə alınmaqla təhlil olunmayacaq.

Tədqiqatın elmi yeniliyi və praktiki nəticələri: böyümə və inflyasiya anlayışını və quruluşunu müzakirə edir. Xüsusi AB ölkələrinin iqtisadiyyatlarını və inflyasiyanı tənzimləmək və iqtisadi böyüməni qorumaq üçün fəaliyyətlərinə tarixi baxışlarını müzakirə edir.

Nəticələrin istifadə oluna biləcəyi sahələr: Xüsusi AB ölkələrinin iqtisadiyyatın tənzimlənməsindəki təcrübəsinin İEOÖ-lərdə inkişifaında tətbiqi

Açar sözlər: böyümə, ölkələr, infliasiya

"INFLATION AND GROWTH SOME EMPIRICAL RESULTS FROM EUROPEAN UNION COUNTRIES"

SUMMARY

The actuality of the subject: Inflation might mean either an upsurge in the currency supply or price stages, meaning that, if the money supply has been amplified, this will make itself obvious in greater price stages. This ultimately influences the economy, along with the populace and the commercial establishments.

Purpose and tasks of the research: The foremost objectives of the research comprise analysing the influences of inflation on economy, economic growth and examining the inflation and growth in European Union countries.

Used research methods: Research encompasses assorted instruments and approaches implemented for outlining the objectives of this work. With the purpose of examining the research questions, abundant information origins comprising books, web locations and statistical data are utilized.

The information base of the research: Ultimately, we will test regression relationship carry out correlation analysis and other econometric tools and also some economics software will be used during such as SPSS, E-views to find whether there is a meaningful relationship between inflation and economic grows in EU.

Restrictions of research: All the economic indicators will not be analysed taken into account the number of EU countries and the limitations in terms of time.

The novelty and practical results of investigation: Discusses the concept and the structure of growth and inflation. Deliberates specific EU country's` economies and their historical preview of actions to regulate inflation and maintain economic growth.

Scientific-practical significance of results: Implementation of EU countries` practice on economy regulation to developing countries

Keywords: growth, countries, inflation

LIST OF ACRONYMS

EU: European Union

GDP: Gross domestic product

US: United States

TLTRO: Targeted Long Term Refinancing Operation

ECB: European Central Bank

CNB: The Czech National Bank

CONTENTS

INTRODUCTION

The actuality of the subject: Inflation might mean either an upsurge in the currency supply or price stages, meaning that, in case the money supply has been amplified, this will make itself obvious in greater price stages. This ultimately influences the economy, along with the populace and the commercial establishments, in destructive means, hence the governments make sizeable efforts in order to retain the inflation on low levels, by means of generating fiscal and monetary policies. The connection amongst inflation and economic production possesses a momentous role. As such, in case the complete economic output is deteriorating, or simply remaining firm, most businesses will not be capable of upturning their proceeds. Nevertheless, profligately gross domestic product growing is treacherous as well, since it will most possibly come with an upsurge in inflation that wears down stock market expansions through making money and forthcoming corporate revenues less valued. Therefore, this is imperative for governments to conscientiously screen inflation rates, in case they are extremely in high or low country administrations possess a quantity of tools at their disposal to upsurge or decline the levels of inflation.

While industrialized countries saw their highest inflation rates with around 9% in the 1970s, the average inflation rate of developing countries was recorded the highest rate in the period of 1980s on average around 37%. Differences in the rates of inflation over the world are due to inflation factors in each country. While there was a dramatic increase in the price levels during the 1970s, overall, 1990s period recorded the highest price level. Studies show that the significant inflation factors for emerging countries are different from the developed countries. The core inflation determinants of developed countries are the growth of money supply, government

spending, oil prices in the world, population, interest rates and nominal exchange rate. However, inflation determinants of developing countries also includes money supply growth, government spending, global oil prices, and nominal effective exchange rate, as well.

This study aims to analyze inflation and economic growth in the instance of European Union countries, through examining the empirical results from these countries. In addition, the research is designed in a way to study implementation of international practice on the economic and financial system of Azerbaijan, a developing country.

Problem setting and level of learning: Inflation, which is known as an increase rate in the prices of products or services, has the most significant impacts on economy. Thus, keeping the inflation rate under control is one of the chief fiscal goals of any governments. Demand for products or services inflation is getting higher than supply that gradually raises prices over time. In the case of low inflation rate which is caused by declining in the consumer demand, there is a bigger economic issue, and subsequently it makes business and individuals delay purchases, affects sales figures. It upsurges the debt burden as inflation offsets interest rates somehow. Though, if inflation rate is so high it will be moving faster than increase in incomes and the business' purchasing power and individuals will be impaired, so this will have detrimental impacts on economies. In addressing this problem, central banks over the world are targeting long-standing average interest rates which is around 2 percent. When developed countries spend more, the rate of inflation rises up in the result. The high oil prices in the world caused by great demand from developed countries leads to high inflation rate resulted from an increase in the production cost. Therefore, in the countries' fiscal policies, governments control inflation rate either by reducing government expenditures, or by dropping private spending or by using both. This reduces private spending by raising taxes in the private businesses.

The scope of learning comprise recognizing the relationship of inflation and economic growth in European Union countries, and examining the undertakings of

country administration of Azerbaijan in reforming the economic and financial system of Azerbaijan via the implementation of the global practice.

The purpose and objectives of the study: The foremost objectives of the research comprise analyzing the influences of inflation on economy, comprehending the relationship amid inflation and economic growth and examining the inflation and growth in European Union countries. Research questions include:

➢ What are the major effects of inflation on major economic indicators?

➢ In what ways governments maintain a regulation over inflation rates?

➢ How to mitigate detrimental impacts for entity`s financial performance arisen by inflation?

➢ What is a link between inflation and economic growth from the European Union point of view?

➢ How does Azerbaijan implement international practice on its economic and financial system?

The object and subject of the research: The Economic Growth and the Inflation

Research methods: Research encompasses assorted instruments and approaches implemented for outlining the objectives of this work. With the purpose of scrutinizing and examining the research questions, abundant information origins comprising books, web locations, articles, reports and statistical data are utilized. Throughout the course of the research, lots of economic sources related to inflation and economic growth were regarded. Since the character of this study is more quantitative, the chief research methods are in accordance with quantitative research, which concentrates on collecting numerical information and generalizing it. In this paper, we will observe numerous diverse economic theories and empirical studies to evaluate the consequence of inflation on economic growth.

The limitation of the study: All the economic indicators will not be analysed taken into account the number of EU countries and the limitations in terms of time.

Scientific novelty of the research: The scientific novelty and practical importance of this master's thesis are in this manner:

➤ To analyse the prevailing studies on inflation and economic growth and generalizing them;

➤ To form novel understanding via examining the connection amid inflation and growth in EU countries;

➤ Executing examination of inflation on Azerbaijan's economy with the intention of analysing the superiority of inflation on Azerbaijan's fiscal policy.

Practical significance of the results and areas of application. First chapter discusses the concept and the structure of growth and inflation. Second chapter deliberates specific EU country's` economies and their historical preview of actions to regulate inflation and maintain economic growth. The final chapter examines empirical aspects of economic growth and implementation of EU practice in Azerbaijan. The last chapter is conclusions, which encapsulates the sequels of study and demonstrates the findings.

I CHAPTER. DIFFICULTIES FOR ECONOMIC AND FINANCIAL FACTORS RELATED TO ESSENCE OF INFLATION

1.1. Remarkable factors as driver of inflation

The world economy has observed a significant decline on inflation rate during The world economy has observed a significant decline in inflation rate during the last four or five decades. Inflation is commonly determined as the fiscal situation in which the normal price rate is rising unceasingly without an increase in the production process of products or services. When total demand rises more than total supply, inflation rises. The misbalance between these two market models may be caused by some monetary or nonmonetary factors.

Adam Smith (1776) differentiated real price and nominal price as "the true price of everything…is about the toil and trying to get it. In other words, real price remains the same as the value; but in the examples of the differences of the silver and gold value, sometimes the nominal price may be so different in comparison with values." Inflation itself is related with the nominal price. Bryan (1997) argued that the inflation age began with "the phase of currency issue"; "the period of the mid-1830s and Civil War witnessed a bank proliferation; with those economic institutions banknotes came, a special paper currency used for a specified metal amount". Within this period, "inflation" begins to appear in literature as something

which happens to paper currency, not to prices. Inflation is also determined as the addition process to the currency that does not rely on a proportional rise in the production of the goods (Trichet J.C. 2004). The controversy in definitions is that the inflation is only the monetary phenomenon and provides excess of currencies or bank money, not relying on the goods and services produced is the reason for inflation process.

Mostly economic literature has been engaged in the question of what are the causes and effects of inflation. Several schools were teaching the inflation causes is grouped into two wide theories:

- Quality Theories of Inflation;
- Quantity Theories of Inflation.

The inflation theory is based on the seller's expectation of accepting money for being able to exchange which currency for products or services is desirable as a purchaser at a later time. The inflation quantity concept is based on the money quantity equation related to the supply of money, money liquidity, and nominal exchange value. Adam Smith and David Hume suggested an inflation theory on the money quantity and production quality.

If we go back in the literature to search for inflation reasons, we will find numerous indicators responsible for inflation on both the demand and supply side, money-currency, production. Once the price increase begins, this turns into inflation vicious circle on both the demand and supply side as demonstrated by the Source.

**Figure 1: Spiteful circle of inflation with regard to Monetarist and Keynesian ideology**
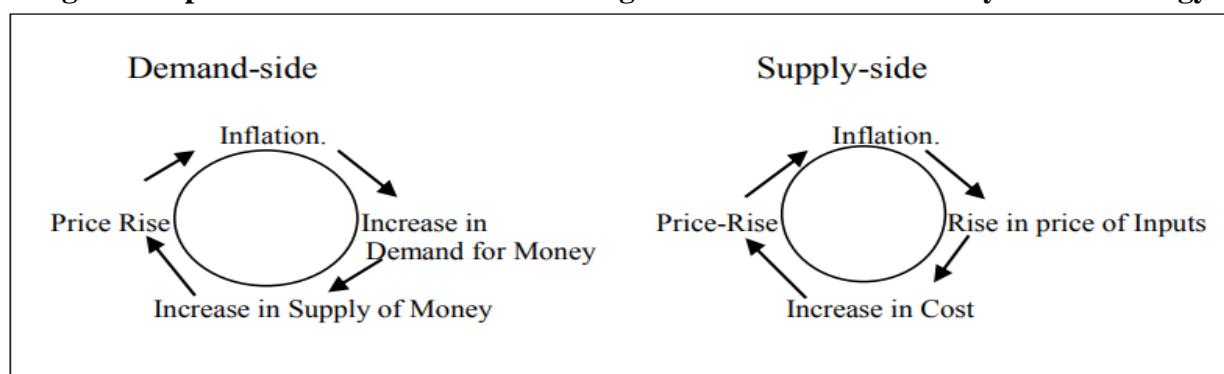
Source: Pangannavar A. Y. 2014: pp. 66-82

On the supply side, the first increase of the general price level results in the price rises of any input that rises the production costs reflected in the general price level consequently brings inflation. Also, the initial price rise on the demand-side decreases the purchasing power of the money therefore more money is needed. On the other hand, an increase in profit rises money demand leading to rising in money supply through the creation of loans, deficit-financing, and country spending leading to a further rise in the general price. This price increase process continues from the short-term to the long-term where monetarist, classical theorists, and Keynesians hold good.

As annual median price inflation, inflation fell all over the world from about 17 % peak in the year 1974 to almost 1.7 % in the year 2015, which represents the lowest rate in nearly half a century. Through the same phase, amongst developed economies, median price inflation has also fallen to the lower rate of 0.3 % from its highest level of 15 %.

Figure 2: Global core and headline Consumer Price Index inflation
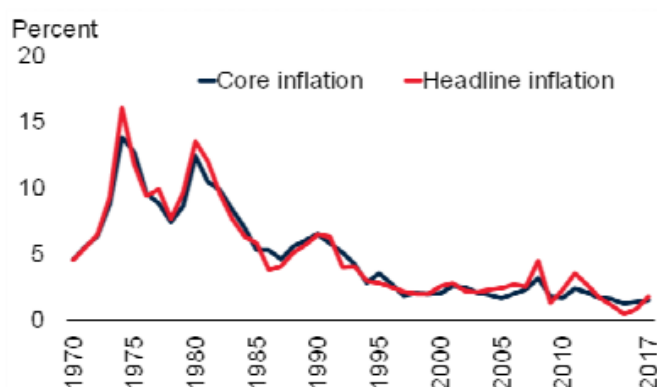
Source: https://data.imf.org/?sk=4FFB52B2-3653-409A-B471-D47B46D904B5, International Monetary Fund, 2018

Figure 3: World-wide PPI, CPI, and GDP deflator inflation
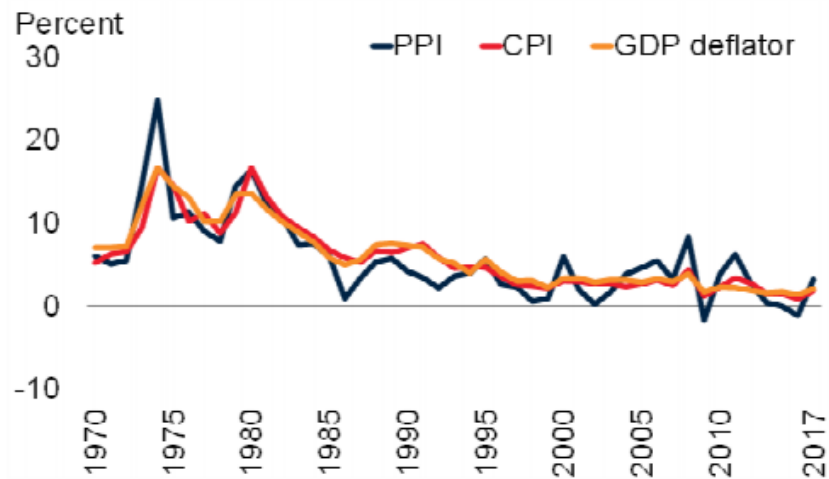
Source: https://data.imf.org/?sk=4FFB52B2-3653-409A-B471-D47B46D904B5, International Monetary Fund, 2018

As displayed by Figure 2 and Figure 3, the global inflation rate fell from the peak of about 17 % with an annual average in the year 1974 to 2.6 % in the year 2017. This decrease was comprehensive across countries and inflation metrics.

A high inflation rate is commonly related to financial crises and lower development. Increasing price levels come with such economic outcomes, such as threats to investment activity, fewer motivations to save money, and erosion of financial sector balance sheets. Furthermore, the high inflation may have economic damages on the poor segment, since this part is more dependent on wage, have low access to interest-earning accounts, and are impossible to have own real assets and financial holdings other than cash. For all these reasons, a stable inflation rate has been caused to better development consequences, poverty reduction, and lastly financial stability.

After the global financial recession inflation has been declining slightly all over the world. From the 2nd quarter of 2008 global inflation which is determined as median customer price inflation amongst all the countries declined gradually from 9.2 percent to 2.3 percent up to the second quarter in 2018. In 80 % of emerging market economies and developing countries, in the 2nd quarter of the year 2018, inflation was between 0.9 % and 7.5 % year-to-year, in comparison with 4.8 % to 25.3 % rate in the 2nd quarter of the year 2008. Amongst emerging market economies and developing countries, it has created an opportunity on fiscal policy

for supporting activity. In developed countries, on the other hand, tenacious under the target inflation as the crisis has augmented threats of de-anchoring inflation prospects and made central banks recourse to eccentric monetary course of action tools to upkeep the demand.

Figure 4: Global inflation over a decade amid 2007 and 2017
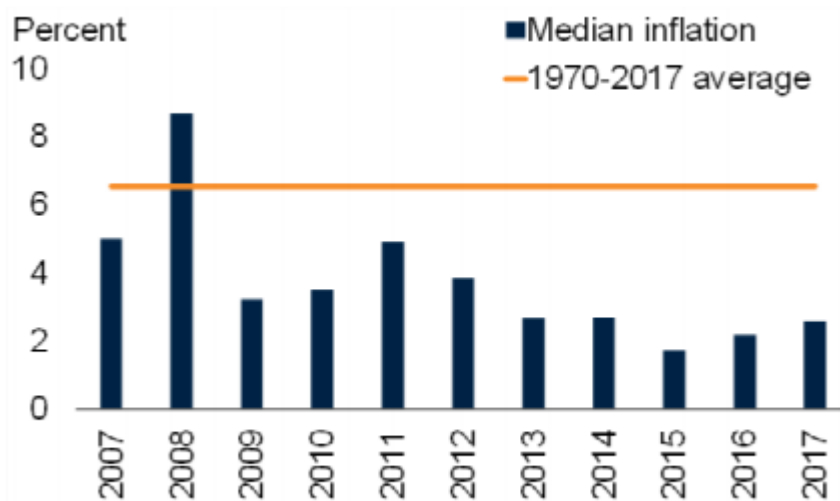
Recent easing in inflation is has been continued a trend spanning almost fifty years. In the 1960s, after a quick rise, inflation all over the world reached 16.6 % with an annual average in 1974, in 2017 global inflation rose four times as demonstrated by the Figure 3. The decline in inflation in the last forty-fifty years is the result of different factors combination, which includes new monetary or fiscal policy enforcements, severe worldwide shocks, and managerial or structural changes on national and world economy, which will be comprehensively covered in the subsequent section (1.2).

The causes and factors of inflation are manifold. They can be divided into two large groups - internal and external (endogenous and exogenous). In turn, internal causes are monetary (monetary), non-monetary (structural), and subjective psychological nature.

In the context of globalization, factors of an exogenous nature that generate unfavorable shifts between the money and commodity supply are of considerable

importance in the development of inflationary processes. The following external factors influence the inflation rate:

• Unsatisfactory state of the balance of payments (negative balance of commodity and capital flows);

• Strengthening of foreign currency and, accordingly, devaluation of the national currency;

• Structural shifts in the global and regional capital markets;

• Cyclical development of the world economy;

• Global and zonal economic crises (currency, raw materials, energy, commodity, financial, debt).

Any of these factors indirectly affect the national commodity-monetary balance, and hence inflation. For example, crises in the market for imported raw materials and foodstuffs lead to higher prices on the national market. Lack of liquidity in the world capital market reduces its inflow into the national economy, which, in turn, narrows the sources of investment in the development of the production of goods and services, increasing the cost of these goods. The devaluation of the national currency leads to its depreciation and, as a rule, causes an increase in prices, etc.

The possibility of influencing exogenous factors on the part of national actors is very limited. Internal (endogenous) factors are regulated with a much greater degree of freedom and responsibility. Let's look at their characteristics.

Monetary (monetary) factors are certainly the key factors in inflation. They are understood as the direct impact of money supply growth on inflation and the price level. That is why the central bank, as the body responsible for issuing money into circulation, is directly responsible for the rate of inflation. Art. 3 of the Federal Law "On the Central Bank of the Russian Federation (Bank of Russia)" states that the protection and stability of the ruble is the goal of the Bank of Russia. Thus, it becomes clear that the authority to control inflation is delegated to the central bank since it is inflation that is the main factor that undermines the stability of the national currency (Quah D. and Shaun P. V. 2010: p.89).

Among the structural factors of inflation is the violation of sectoral and macroeconomic proportions that give rise to commodity-money imbalances. Examples of the non-monetary origin of inflation in pre-market administrative-command systems are the outstripping development of the subdivision that produces the means of production and the chronic backwardness of industries that produce consumer goods. This structural imbalance in Soviet times was a consequence of the policy of intensive industrialization, which left insufficient resources for the production of goods for final consumption by the population in the agricultural sector, light and food industries, etc.

In market economies, due to the balancing and regulating power of the market, global fundamental imbalances do not objectively arise. However, an ill-considered economic policy can, to a certain extent, give rise to structural imbalances and deformations. So, in modern Russia, the economy still has an undiversified, unbalanced, inharmonious character. There is an obvious tilt of the economic structure in the raw material industry, especially in the production and export of oil and gas. This means underdevelopment of the production of goods with high added value, high-tech industries, and areas that generate goods and services that meet the effective demand of the population. This is the reason for the high growth rates of consumer imports, which worsens the balance of payments.

According to an expert study conducted in Russia, the elasticity of inflation was calculated depending on monetary factors. The short-term influence of the money supply on inflation is estimated by the elasticity coefficient in the range of 0.06, and the long-term - 0.15. The more significant factors are precisely structural ones - the growth of costs in the form of an increase in tariffs of natural monopolies (elasticity 0.37), an increase in wages) (Parkin M. 2004: p.77).

At present, there is also no theoretically correct strict direct relationship between the state of public finances and inflation. Examples are a high level of budget deficit and at the same time a low level of inflation in Europe and the United States. Currently, in the US and the Eurozone, inflation is at the level of 1-2.5%. Japan is in a state of deflation at all. In Russia, by contrast, persistent budget

surpluses have been accompanied by high inflation, rather than low, as one would expect. Consequently, high government spending is not the primary source of inflation.

In developed countries, the structure of assets for which effective demand is presented is much broader and more diversified. Therefore, an increase in money supply leads to an increase in prices, for example, for real estate objects. By pledging them in banks and taking out mortgage loans, people use the funds received to buy consumer goods, which also grow in price. So the growth of the money supply provokes the inflation of bubbles in the real assets market.

What practical conclusion follows from the statement of the simultaneous influence of structural and monetary factors of influence on the scale, content, and consequences of inflation? The conclusion is clear. If the government and the central bank, wanting to slow inflation, pursue tight restrictive monetary policies without taking into account non-monetary factors, this will have negative consequences. The final demand of economic agents will decrease due to insufficient liquidity, economic activity and production will be suppressed, and this will be followed by an increase in prices. Thus, the circle closes - the fight against price increases by curbing the growth of the money supply can lead to higher prices at a new stage of development.

An idea of the diversity of the inflation rate in different countries is given in Table 1 (addition 1).

1.2. Government regulation on inflation rates in order to maintain economic stability

Inflation is one of the exceedingly imperative macroeconomic uncertainties and the most dreaded through the economic performers, comprising the country administration since its capable of carrying negative effect over the arrangement of manufacturing expenditures and the degree of prosperity. The various influences of inflation for instance unsteadiness, economic development, the deterioration of competitiveness, the interest rate, rough revenue allocation, and redundancy are growing. Some of the economies having witnessed hyperinflation disclosed that

inflation could result in social and political concerns, and did not generate the economic progression.

Hypothetically, the frequent signs being used to measure the inflation rate which is at variance from state to state and central economic organizations. The Consumer Price Index (CPI) is one of the supremely used ratios, computed as the yearly percent degree inflation in the consumer price index through the time is P1-P0/P0 x 100. Further indications involve the Wholesale Price Index (WPI) or Producer Price Index (PPI) is of measuring the inflation. The producer price index evaluates the weight being placed on manufacturers through the expenditures of their raw materials. This would be passed on to clients, or it might be engrossed via profits, or counterpoise through growing productivity. The PPI is unique from CPI for the reason for that PPI takes in price subsidization proceeds, and duties that are being availed by the manufacturers. CPI is a different inflation measure that is predominantly used through central banks to compute the inflationary influence of the existing monetary course of action. It computes long-term tendency in price stages. Additionally, Gross Domestic Product (GDP) Deflator is likewise utilized to measure the price of the merchandise and services altogether encompassed in gross domestic product. Gross Domestic Product Deflator is computed through its nominal GDP divided by the real GDP.

On behalf of economies having satisfactorily robust establishments to employ sound inflation targeting systems, this may anchor outlooks at the inflation target. In consequence, a secured exchange rate and inflation targeting monetary course of action system is capable of safeguarding those temporary tremblings to inflation made happen, for example, through exchange rate fluctuates or food value points keep on temporary, lacking of being moved across to mass or core inflation.

The mentioned exchange rate systems have been linked with lower inflation in comparison with further exchange rate schemes. In transition markets throughout the years the 1990s and 2000s, the shift to a secured exchange rate system was accompanying by disinflation. In some emerging market economies and developing countries, the lower price increases are achieved through tightening the exchange

rate, which has been at the charge of greater instability of productivity growth and inflation, though in comprehensive examples through an earlier phase, secured exchange rate systems were related to evener inflation. Having assumed these, any alteration amongst inflation and its instability in secured and suppler exchange rate systems could partially replicate the exceedingly assorted character of suppler schemes that comprise economies having across-the-board organizational measures.

In emerging market economies and developing countries, in opposition to developed markets, inflation pointing systems have been allied with ominously lower and steadier inflation. The initiation of this kind of schemes has been related to expressively more comprehensive falls in inflation as compared to further emerging markets. This decrease of inflation has partially been characterized by improved anchoring of inflation outlooks and, in some emerging market economies and developing countries, minor inflation tenacity. Having said these, some researchers have brought into being that the efficacy of inflation pointing in dropping inflation in emerging market economies and developing countries diverges extensively by country individualities, counting fiscal situations and the interval of time by the adoption of inflation pointing measures.

Quantity of inflation pointing central banks reached 35 in the year 2017 from 14 in the year 2000 and, and the portion of emerging market economies and developing countries dependent on tightened exchange rate schemes reduced by 1/3 between the years 1970 (84 percent of economies) and 2017 (54 percent), as demonstrated by the Figure 5. Numerous inflation-pointing central banks, specifically in emerging market economies and developing countries, have carried inflation inside aimed levels while dropping the averages of aimed levels as well. The changeover by fixed to floating exchange rate systems was flatter in some economies - such as Chile - as compared to in others like Brazil in which it was pursued through exchange rate shocks.

Figure 5: Countries having inflation targeting systems, over the years 1990 - 2017

Number of countries

- ■ Within or below target
- ■ Above target
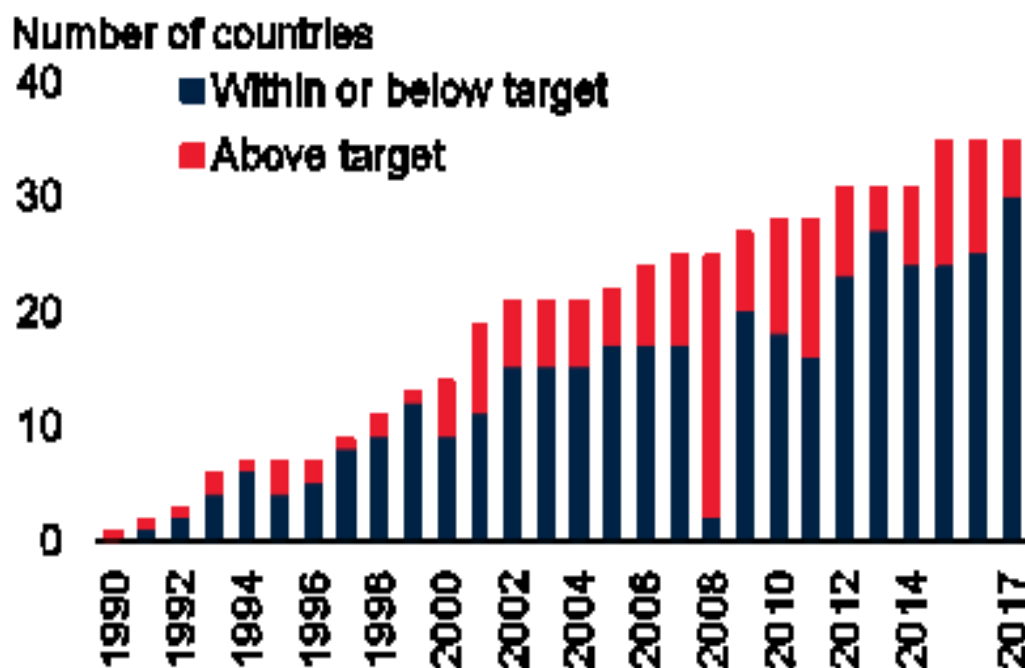
Relationship with inflation

Among economies having tightened exchange rate systems or inflation pointing monetary course of action outlines, inflation was, standardly, 3 - 4 percent points minor as compared to additional exchange rate and monetary policy schemes. This was most apparent among emerging market economies and developing countries: fixed exchange rate schemes and inflation pointing systems were related to 3 - 4 percent points minor inflation, though, in developed countries, the alteration was not more than 2 percent points. As in comparison with the further exchange rate and monetary course of action systems, inflation pointing schemes were connected with minor inflation volatility as well, whereas tightened exchange rate schemes were not.

A panel regression proposes that, through the last forty years, a change to an inflation pointing system tended to be accompanied by 6.5 percent more disinflation (9.1 percent more for emerging market economies and developing countries) compared to the average (Ha M. J., Kose A., and Ohnsorge, F. 2019). 1 / 4 of the developed countries and 1 / 10 of the emerging market economies and developing

countries in the sample established the shift to an inflation-pointing system across this time phase. A change to a fixed exchange rate system controlled no statistically consequential influence among emerging market economies and developing countries.

Freedom and transparency of the Central banks

A steadiness-focused monetary course of action and exchange rate system might be strengthened through the freedom and transparency of a central bank. A more self-regulating central bank is in a more trustworthy place to achieve monetary policy objectives, even to the determinant of additional economic course of action objectives. More transparent central bank procedures, schemes, and communications are capable of ensuring the rightfulness of the central bank, grow communal understanding of and sureness in uncompromising monetary course of action, recommend knowledgeable conversation among market economy part-takers, and the wider public, and more successfully direct and lighten inflation expectations.

In empirical terms, central bank clearness has been established to back support inflation expectations in developed markets. In these countries, central bank transparency has decreased inflation expectations, henceforth, inflation and unpredictability. More intently, among 87 developed and emerging market economy countries, bigger detail in central bank predictions have been conducted through minor inflation, excluding the economies having exchange rate pointing systems. Having said these, Cecchetti and Krause (2002) brought into being that in 63 developed and emerging market economy countries, an extended past of low inflation is more significant instead of macroeconomic constancy compared to any specific institutional organization. The influence on inflation determination stays.

Tendencies in freedom and transparency of the Central banks

Central bank unconventionality and transparency have grown sizably across the last twenty years, expressly in emerging market economies and developing countries as shown by the Figure 6. In the average emerging market economies and developing countries, the index of central bank freedom and transparency enlarged over 1.5 fold by the year 1990, to 5.4 in the year 2014. Outstandingly, the turnover level of

directors of central banks decreased by 1 / 3 among emerging market economies and developing countries between the years 1990 and 2016, having the most prevalent enhancements in Europe and Central Asia, East Asia, and Pacific..

Figure 6: Countries with increasing central bank independence and transparency, via country group (1998-2014)
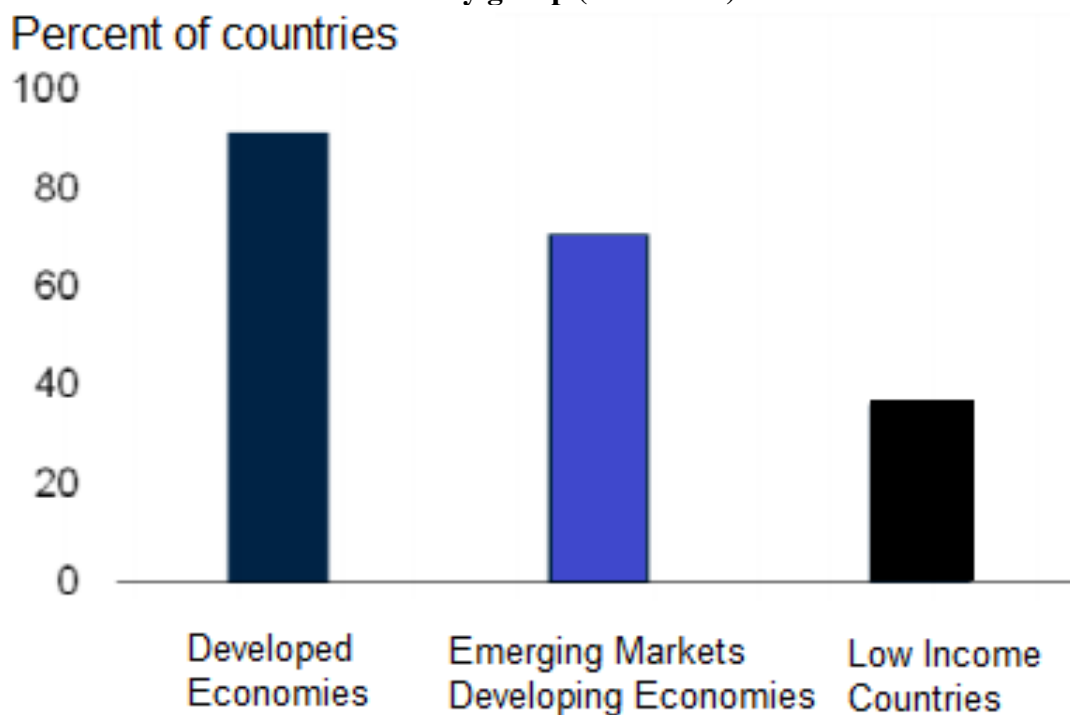
Source: Dincer N.N. and Eichengreen B. 2014: p.32

Fiscal Structures

At a time choices for private local and foreign borrowing by country administrations are incomplete or overpriced, central banks could be obliged to fund the fiscal shortfalls. Unless this kind of shortage of funding is conveyed by flocking out of the private loan, money supply, and inflation will increase, exchange rate weights will extend, and the central bank's occasion to realize monetary course of action objectives will be constrained.

Figure 7: Number of countries having fiscal rules in addressing inflation between 1985 and 2015

Number of countries
100

80

60

40

20

0

1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015
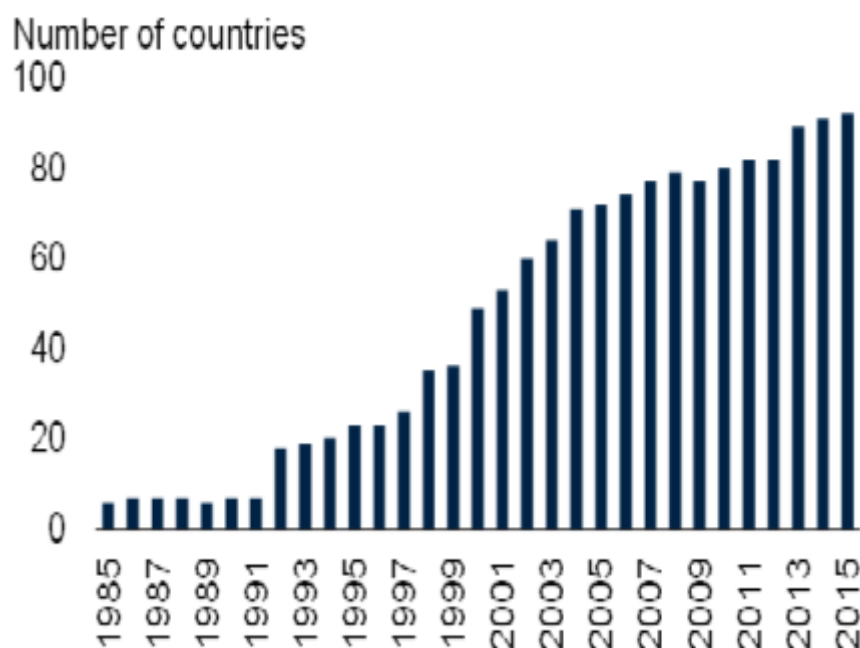
In empirical terms, the indication for this kind of connexion between fiscal shortages and inflation has been questionable, nonetheless, it seems to be harder on behalf of states having foregoing in height inflation or throughout high-inflation occurrences. In a huge sample of economies, extensive fiscal shortages have been linked with upper inflation, principally in states, where inflation was tall at the outset or in which money supply was huge compared to the economic output. Correspondingly, increasing debt has been concomitant with greater inflation in states having previously high debt stages. As an instance, in Turkey in the late 1980s, the financing of enormous fiscal shortages gave rise to height inflation.

Correlation of fiscal structures with inflation

There has been tiny variance, standardly, amid inflation in economies having government debt to economic output proportions in the highest and lowermost quartiles of the sample (Ha M.J., Kose A. and Ohnsorge F. 2019). On the other hand, economies having government debt in the lowermost quartile have had significantly minor inflation instability. Replicating the extensive variety of correlations between inflation and government debt, the panel regression discovers no statistically noteworthy connexion amongst the early level of government debt and disinflation across the last forty years. Even though less government debt by itself was not

decidedly related to sturdier disinflation, inflation has been inferior in economies having fiscal guidelines compared to in countries lacking them as illustrated by Figure 8.

Figure 8: Correlation amid disinflation and alterations in government debt in the years amid 1980s and 2010s
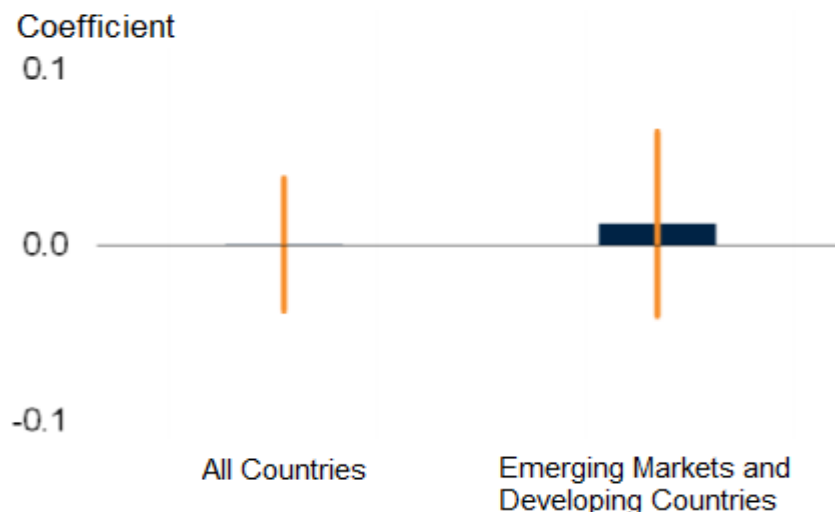
Source: Ha M. J., Kose, A. and Ohnsorge F. (2019). *Inflation in Emerging and Developing Economies Evolution, Drivers, and Policies.* Washington, DC: World Bank. Available at: https://openknowledge.worldbank.org/handle/10986/30657

Workforce and product market economies

In 40 developed and emerging market economy economies throughout the years the 1970s, salary indexation was connected to a larger influence of tremors on inflation (Fischer, 1983). This salary indexing touches inflation tenacity as well: extensive salary indexing, perchance imposed through exceedingly collectivized salary haggling, might imbed short-range inflation tremors into longer-standing inflation tendencies and inflation potentials.

Further, then salary indexation, workforce market economy deregulation has been linked with minor variations . In the Eurozone, specifically, schemes that enable workforce market Vexibility for instance minor employment safety, low union compactness, and more narrow collective haggling have been established to decrease in variations . A similar conclusion was brought into being on behalf of a broader sample of economies in the OECD.

Superior product market economy suppleness can increase rivalry and vice versa. By making salaries and prices suppler, counting through unrestricted

organizational prices, it decreases and makes more momentary the actual impacts of monetary course of action and, for that reason, declines the attraction on behalf of central banks to use the incentive to increase progress and employment. Accordingly, inflation expectations and inflation could be inferior. In empirical terms, there is some cautious indication of minor inflation tenacity between developed economies having superior product market economy suppleness.

Tendencies in the workforce and product market economies

By the year 2000, workforce market economy suppleness has augmented in developed economies, emerging market economies, and developing countries. As an instance, in emerging market economies and developing countries, union associations dropped abruptly to 5 - 15 percent of the workers in the year 2013, well under the level of the year 2000, which accounted for 15 - 35 percent. In some emerging market economies and developing countries with previously raised salary expense coverage, union association has prolonged, however, it stays further down the stages in developed countries, in which it has retroceded to a certain degree by the year 2008.

Correlation of workforce and product market economies with inflation

Lower union association has been related to minor inflation and inflation unpredictability in emerging market economies and developing countries. In emerging developing countries in the lowest third of the sample on behalf of union association, inflation accounted for around 1 percent minor, overall, and inflation unpredictability was not more than half that in the highest third of the sample. Instead of developed countries, by contradiction, the alteration was diffident.

Economic construction

Except product-dependent economies can copiously alleviate production progress and exchange rate fluctuates, these countries might experience superior macroeconomic unpredictability, counting inflation instability, owing to unstable product prices. On the contrary, countries very dependent on food imports might be uncertain about superior worldwide food price precariousness. Nonetheless, the significances of resource dependence instead of macroeconomic consistency count

on policy structures: monetary policy freedom and fiscal directness might lighten the unpredictability happened by worldwide product price fluctuates in resource-oriented countries (Aizenman, J., Chinn M. D. and Ito H. 2010).

Approximately 2 / 3 of developing economies depend profoundly on product exports. In these economies, the product segment makes up 30 to 80 percent of exports, 20 - 70 percentage of government incomes, and 5 - 20 percent of the overall economic output. The reduction in product prices from their all-time high in early 2011 has fortified some economic broadening. In the year2016, the portion of exports represented through merchandises in these states had dropped to 25 - 70 percentage (Ha M. J., Kose A. and Ohnsorge F. 2019).

The oil price drop throughout the years 2014 and 2016 facilitated lessening price increases, predominantly between emerging market economies and developing countries having an exaggerated portion of energy importations in gross domestic product. On behalf of each unnecessary 10 percent of economic output in greater energy importations, disinflation across the last forty years was approximately 0.7 percent sharper (Ha M. J., Kose A. and Ohnsorge F. 2019). On the contrary, greater net food importations were related to sluggish disinflation across the same period.

On the whole, the success of the 1980s. in the United States, anti-inflationary policy, according to many American analysts and practitioners, was explained to a very large extent by the role of the FRS and its leader in that period. European countries also actively fought inflation, and the actions of the central banks of Germany and Switzerland were especially successful at the height of inflation.

In general, the 1970-1980s. were a period of an active search for an effective anti-inflationary policy, a period of trial and error. Theoretical attitudes replace each other. Keynesian ideas are opposed by monetarist recipes, and they, in turn, are enhanced or replaced by the recommendations of the supporters of the theory of supply, structural inflation. During this period, the most comprehensive are two directions of financial stabilization. The first direction, based on monetarist concepts, involves the application of the following anti-inflationary measures:

- Reduction of government spending (Mélitz J. and Axel A.W. 2006: p.89);

- Increasing taxes;

- Increase in interest rates;

- If necessary, confiscatory monetary reforms;

- Maintaining the growth rate of the money supply (usually within a few percent) by the real possibilities of increasing production;

- Focus on market regulators (free prices, a floating exchange rate of the national currency, liberalization of the conditions for companies' activity in the markets) while diminishing state economic activity.

As the further development of the economy showed, such measures can be regarded as sufficient at moderate rates of price growth. However, with high inflation rates, especially when accompanied by crisis phenomena in the economy (1), these measures are usually not enough, and in this case stabilization programs of the second direction is in demand.

(1) The combination of inflationary and crisis processes in the economy, called stagflation, is becoming a characteristic phenomenon for the second half of the 20th century. and is largely due to the pricing practices of large companies that have taken dominant positions in the modern economy.

The second direction is based on non-monetary concepts (neo-Keynesianism, supply-side economics, structural inflation). The main anti-inflationary measures in this area include:

- Income policy (direct control over the level of prices and wages);

- Tax cuts to stimulate production and savings of the population;

- Reduction of interest rates to support production;

- Active state influence on the economy (support and stimulation of economic development, formation, and support of a competitive environment, control over monopolies);

- Regulation of prices in certain sectors of great economic or social importance;

- Smoothing out structural and sectoral imbalances in the economy;

- State regulation of the foreign economic sphere, primarily through monetary policy.

At the same time, in practice, mixed programs are often formed and are very successful, using tools and measures of economic impact from an arsenal of different theories, designed to solve specific current problems of the economy. As a result, by the end of the 1980s. in developed countries, the foundations of a modern anti-inflationary policy are being formed, which made it possible to cope with inflation and keep it at an acceptable level. At the same time, a slight rise in prices - about 2% - is recognized as acceptable and even welcomed as a factor stimulating demand and supporting economic growth.

The negative socio-economic consequences of inflation force the state to implement certain anti-inflation policies, ie comprehensive measures to eliminate the causes of this negative process. In practice, the necessary conditions for the effectiveness of this policy are expressed as follows: 1) assessment of current inflation based on scientifically sound principles; 2) coordination of the activities of government agencies with financial, monetary, and credit organizations; 3) complexity and multiplicity of anti-inflation mechanism. Estimation of current inflation based on scientifically based principles. The development of an effective anti-inflation program requires, first of all, a scientific assessment of this process based on a detailed analysis of the existing factual information to make a correct "diagnosis". The term "diagnosis" here means, first of all, the identification of the underlying causes of the general rise in prices and current inflation. It is clear that in the current period of development, the country is facing demand inflation or, conversely, cost inflation to determine this or that set of "recipes" and the consequences of their application. An unorganized market mechanism, of course, contains some preconditions for eliminating demand-side inflation. It is known that when prices rise, there is usually a redistribution of national income in favor of the more well-off, highly prone to savings in the country. As a result, the average capacity to consume in the country begins to decline, which leads to a contraction of consumer demand and the withdrawal of monetary factors of inflation.

For the successful implementation of an anti-inflation policy, it is necessary to coordinate the activities of financial and monetary institutions with government

agencies (Ministry of Finance, Central Bank) and keep them tight in this area to ensure the continuous elimination of uncontrolled inflation. These bodies should base their activities on the monetary regulators of their anti-inflation policy. To this end, the state cannot fully take into account all the consequences of the anti-inflation policy. In compliance with these conditions, the Central Bank should not, in any case, follow the desire to fill the country with the money supply. Otherwise, it may hurt the living standards of market participants and the general population.

The policy of eliminating inflation expectations is aimed at radically eliminating the historically formed behavior of economic agents and includes measures to arrange faster to prevent the loss of purchasing power of cash. Achieving a decisive change in the psychology of inflation does not require the prevention of inflation itself. The solution to this issue is not a requirement. However, the formation of a government that has won the trust of the majority of the population and the strengthening of market mechanisms is, first of all, a direct result of the elimination of existing inflation expectations. Price regulation is important in meeting inflation expectations. If prices are set by the authorities, the expectation of a commodity deficit and a deficit (inflation) will be inevitable. Price liberalization is also possible in the context of a total monopoly of commodity markets, but this will inevitably require a sharp acceleration of inflation (with the appropriate expectations of economic agents). Therefore, the strengthening of market mechanisms makes it necessary to create a competitive environment and eliminate the facts of monopolistic behavior of this or that company. The government's goal of stabilizing price dynamics in the face of precisely set inflation rates and attempts to weaken its supply takes precedence over all others, and households and companies suddenly change their economic behavior. They begin to think seriously about increasing savings and gradually determine their consumption potential. The main task of any government is to convince the population that its anti-inflation rate and the stability of inflation expectations will not change. If this is resolved and trust is restored, the government will have a real chance to achieve important anti-inflation goals by managing public opinion, even when the necessary

resources are not enough. Carrying out monetary aggregates, exchange rate, and inflation targeting policy. In pursuing a policy of targeting monetary aggregates, the Central Bank provides a targeted direction for the growth of the money supply for the future following the Friedmann equation. Experience shows that such an approach is not effective in changing the demand for money. The exchange rate targeting policy involves currency regulation. This results in low inflation rates and the country's national currency are linked to foreign currencies. At the same time, currency regulation is aimed at preventing the rigidity of the price-spiral "price - the exchange rate - price", which allows achieving a relative stabilization of the exchange rate. It provides, first of all, with instruments that define the "currency corridor" (reflecting the upper and lower limits of exchange rate fluctuations), as well as the direction of foreign exchange intervention by the Central Bank by which the Central Bank intends to sell part of its gold and foreign exchange reserves. The application of such a method of regulation to prevent inflation allows exercising real control over the overall expenditures of the country, the dynamics of the money supply. Such control is exercised by the Central Bank of the country whose money supply is artificially linked to the currency. Therefore, in recent years, DCC central banks have been increasingly applying inflation targeting policies. It is based on a comparison of the observed level of inflation with the projected, desired rate for the future. Respectively, the influence of monetary and non-monetary factors of price dynamics with monetary policy instruments is taken to achieve the given target directions. One of the most important conditions of the inflation targeting policy pursued in several DDCs since the 1990s was the state's refusal to interfere in the fiscal-dominant process. Fiscal dominance means, first of all, that the Central Bank imposes strict limits on the number of direct loans provided by the government to cover the budget deficit (Perron P. 2008: p.77-78).

1.3. How to mitigate detrimental impacts for entity`s financial performance arisen by inflation

Inflation possesses a negative influence on commercial corporations. It discourages production growth, results in unproductive distribution of resources, discourages firm valuations, and gives the sources of the forthcoming downturn. Intending to protect the opposing influences of inflation, commercial corporations have to consider the threat of inflation to their commerces, improve a thorough awareness of their actual expenditures and prices, and form policies to defend their gross margins and protect their investment programs (Pidun U., Stelter D. and Dyken K.V. 2010).

On the whole, inflation possesses both constructive and adverse influences on businesses. Conversely, organizations favor inflation to be low and constant. On top of that, inflation degree can increase the cost of manufacture. Some of the results of inflation for businesses are salary inflation, indecision and misassumptions, and worldwide competitiveness. Nevertheless, inflation could be helpful to corporations as well concerning that it decreases the actual worth of the businesses' debt. Alternatively, controlled inflation caused by robust economic development is an incentive to demand-pull inflation. Increasing inflation enables commercial establishments to increase the price level and for that reason surge in the cost-effectiveness of the companies.

Furthermore, in case an entity makes ready itself for exaggerating inflation rates, the consequence on employment will arise less of a shaking. Floating prices gradually over time comfort the customer into a more costly economy. Worker remuneration expenditures might be problematic for companies to cope with through inflation; it might be common for companies to witness an in height employee for the duration of the inflation. In case firms are generating a smaller amount of profit owing to customers wishing to use less money, personnel could not be permitted to pay an increase to match the inflation escalation. Inflation possesses the identical rise on workforces as it does customers, and for that reason, if their recompense is not as high, they could not be capable of having enough money for substances they once were capable of. Consequently, it is imperative to make the personnel feel

respected so they are not obliged to try to find a better-salaried occupation in a different place.

There are huge patterns to mitigate the harmful impacts of inflation on the financial performance of commercial entities. If entities trace the outline, gradually rising their prices to compete with the economy, customers will not be upset at a correction in the price or the service. Hence, clienteles will be more probable to remain to acquire the good or service.

Early in the inflation sequence, banks are eagerly getting bigger their loan portfolio since the relaxed money procedures of the country administration thrill the economy into overdrive. For the duration of this simulated "boost" numerous entities yield to the enticement of easy money and ponder that receiving a commercial credit is a decent indication. They figure it for the reason that inflation degrees are escalating, the charge of disbursing the credit will be less than the worth of the credit. Nevertheless, since is the circumstance of any debt, businesses must be shrewd on how much they take and for what, since even discounted money will not financially guarantee them if proceeds did not rise from the novel commercial venture or growth (Wu Y. & Zhang J. 2001).

Well ahead in the inflation structure, entities will find it tougher to take debt, for the reason that banks and further financial establishments sight an entity having a low cash movement as a threat, as it will be tougher to reimburse the lent capitals. At this time, to defend themselves counter to the influence of inflation, moneylenders raise interest rates to shelter not simply the price of the denigrating worth of the money, but the charge of amplified market economy ambiguity as well. This deficiency of borrowing influence will decrease the liquidness of voluminous entities, which depend on loans to finance inventory or procedures, and may bring about bankruptcy, or decrease the capacity of commercial entities to put into development (Wu Y. & Zhang J. 2001). Since the complications in the market mount, lenders turn out to be more careful and in due course, all loan desiccates, so even constructive loan threats are incapable of acquiring funding.

The main financial decisions that are important for the enterprise are, first of all, long-term, and this is due to the selection of investment projects. The quality of the calculations depends on the correct forecast of cash inflows and the level of acceptable efficiency of the investment provided by the manager. The calculations should be based on two principles:

a) the application of the discount rate in the modification, which reflects the adjustment to the level of inflation forecasting;

b) Priority should be given to projects that can be implemented in a short period on other equal terms.

The securities are used for three main purposes - to provide the necessary level of liquidity, as a source of financing for unplanned profitable investment projects, and as a source of income. Inflation increases the risk of insolvency of companies that buy securities. Therefore, special attention should be paid to the consolidation of the investment portfolio. Accounts receivable characterize the diversion of the special working capital of the enterprise from the economic turnover. Naturally, this process is accompanied by the indirect loss of income of the enterprise. As inflation rises, the level of this loss increases. The economic nature of these losses is reflected in three aspects:

• The longer the maturity of receivables, the lower the income;

• The value of money paid by debtors in the face of inflation is low;

• Accounts receivable are an important type of assets of the enterprise and should be an appropriate source for its financing.

Since all sources of funds have their own cost, the maintenance of this or that level of receivables is accompanied by appropriate costs. In connection with this, in the West, certain concessions are made during the sale of products to reduce the number of indirect losses due to delays in receivables. Thus, in the context of inflation, the measures taken in connection with the following issues are considered more important:

• control over the formation of market prices and the level of production costs. In the face of inflation, tariffs and prices are set for a short period. Since the market price is formed based on supply and demand, on the one hand, future profits, on the other hand, production costs act as a price regulator. Thus, if the supply exceeds the demand, then the producer sets the minimum price for the product, taking into account the production costs;

• Increasing labor productivity through automation of production and application of new technologies;

• Marketing research;

• Effective asset management;

• Development of sound financial policy (minimization of cash and receivables, use of accounts payable).

In the context of inflation, the general rule is that the investment of money in any transaction is justified when the return on investment is higher than the rate of inflation.

There are two approaches to overcoming inflation:

- Adaptation policy (adaptation to inflation);

- Eliminate inflation (radical) with an anti-inflation policy.

In the policy of adaptation, all market participants (households, government, firms) take into account Inflation in their activities - mainly the decline in the purchasing power of money. As can be seen, the adaptation policy does not take into account the causes of inflation. The second policy of the state during inflation is minimal government intervention in market forces and anti-inflationary measures. This includes the liberalization of the conditions of firms in both domestic and world markets, free prices, the maintenance of the national currency. This policy also applies to the sale of part of state property to eliminate the chronic state budget deficit and public debt. Such a policy has been chosen by many countries and

Azerbaijan. The idea arises that the financial stability of a pure monetary method can not be infinite, it will collapse before and after. Now our leadership must rely on its internal resources (Perron P. 2008: p.12). Resources are increasingly in demand. The further the manat deviates from its real value, the more difficult it is to maintain its exchange rate. Revaluation of property, plant, and equipment, and other tangible assets is carried out based on either indexation or recovery. Indices are defined by groups of fixed assets and significantly simplify calculations. In Germany, for example, revaluation is used for revaluation due to deficiencies in the accounting for the cost of property, plant, and equipment. It is known that the initial cost of fixed assets is taken as a basis for accurate indexation. International experience has shown that price regulation cannot be limited to time and space. Otherwise, the "movement" of prices can create a fluctuating picture, which can negatively affect the economic development of the country and the livelihoods of the population. This fact proves once again that the price policy, ie the regulatory impact of the state on the price and pricing process, must be carried out taking into account the interests of all areas. The price policy is also related to the level of development of the country's economy. That is, the state can reduce or increase its regulatory impact on prices, depending on its level of development. In developed market economies, price management is not directly direct but interacts with production, consumption, finance, banking, tax and customs policy, protection of the domestic market, and improving social welfare in society. Thus, appraisal activities also affect the regulation of 60 real estate markets and the harmonious development of people's social and economic lives. The market approach or comparative approach in property valuation is based on comparing the value of the enterprise being valued and the entity being compared. The comparative approach includes the following methods: capital market; bargaining (methodology of comparative sales analysis); field coefficients. The capital market methodology is based on the market price of the shares of an enterprise similar to the enterprise being valued. Based on the principle of substitution, the investor can invest in either a similar entity or the entity being valued. Therefore, the share value of a comparable

entity may play a guiding role in determining the share value of an entity being valued with certain adjustments. The advantage of this method is that it uses factual information available in the stock markets. Thus, the income approach method uses forecast data characterized by uncertainty. Accurate and detailed financial and market information on a group of comparable enterprises is important for the implementation of the capital market methodology. Transaction methodology (or method of comparative analysis of sales) is a special case of the capital market methodology, which is based on the analysis of the controlling stake of the comparable enterprise or the acquisition price of the enterprise as a whole. The main advantage of this methodology is that it reflects the current real economic experience, the disadvantage of this methodology is that it is based on old events and does not take into account the future conditions of the enterprise (Perron P. 2008: p.14).

The main difference between the transaction methodology and the capital market methodology is that if the transaction methodology determines the value of the controlling stake that allows full control of the enterprise, the capital market methodology determines the value of the enterprise in the absence of a controlling stake. The field ratio methodology (or field ratios) is used to estimate the value of an enterprise. The "golden rule" of valuation for several sectors of the economy is as follows: the buyer will pay for the enterprise no more than four times the amount of the average annual profit before tax. The above methods are not used in the assessment of the enterprise in isolation from each other, they complement each other. As a rule, several methods are used from different approaches to evaluating a particular enterprise. Then, the results obtained by different methods are compared and determine the final valuation decision, which is called the final level of value of the assessed enterprise.

If the organization was accounted for in foreign currency, the result could be the same. The Intergovernmental Working Group of Experts on International

Accounting and Reporting Standards considers it appropriate to reflect the adjustment to the rising impact of inflation in two ways:

1) taking into account changes in the general price level (changes in the purchasing power of money);

2) taking into account changes in current prices for specific goods (materials, equipment, devices, etc.).

According to the adjustment to the change in the purchasing power of money, the value of assets, liabilities, receipts, and expenses in the reporting history is taken as the index calculated at the base level, following the average price level. It is about the movement of prices for all goods and services within the national economy. Such an indicator can be calculated in a centralized manner only by the State Statistics Committee of the Republic. The method of accounting for assets at initial cost does not change, only the unit of accounting for assets is changed. This in itself significantly simplifies the application of this method (Perron P. 2008: p.55). It is relatively difficult for government agencies to apply the method of centralized and timely calculation of changes in the average price of goods and services. For the recalculation of all items of the report, a single index is used, calculated based on changes in the dynamics of the general price level during the method of changing the purchasing power of money. It is relatively simple to apply, as this method is very close to the basic principle of accounting, the principle of accounting for initial (actual) costs. Income (profit) is recorded in the form of money after the amount of private capital is recalculated. It should be noted that IAS 30 Financial Statements in Hyperinflation does not recommend a recalculation of the reporting data (based on the average price index for all goods and services) based on information on the purchasing power of money. Due to the complexity of calculating reliable information on the average price index, its failure to provide financial statements to enterprises during the period in which they are presented does not allow the application of this standard. By adjusting the inflation factor, it is necessary to create a permanent mechanism for accounting for the value of assets and liabilities, as well

as to think about small businesses. In most of these enterprises, revaluation and recalculation costs cannot be covered by the income received from them. Therefore, it is expedient to give freedom to small enterprises. Inflation factors cause a nominal increase in the value of existing and used assets. Accordingly, the costs of production and sale of goods, as well as the share capital of the enterprise increases in nominal terms (in the use of money), and its profits change. At the same time, there are economic and methodological problems in the distribution of the increase in the monetary value of the property between the capital of 70 enterprises and the financial results of the current reporting period. Depreciable assets should be adjusted to the inflation index based on the residual value. The residual book value in itself represents the value of that type of property at that date. This means that the initial cost of fixed assests and the amount of depreciation accrued to them increase in line with the inflation index (Parkin M. 2004: p.55).

From the experience of previous years in the regulation of inflation and the implementation of anti-inflationary measures, it can be concluded that for this policy to be purposeful, it is necessary to properly use the elements of the inflation mechanism. The prevention of sharp fluctuations in the exchange rate of the manat, the decline in the competitiveness of the non-oil sector, and the deterioration of foreign trade, the issuance of manats, which increases the risk of inflation, should not be allowed. Tight monetary policy to ensure the stability of the manat and curb inflation should be pursued in such a way as to minimize the negative impact of this policy on the economy.

II CHAPTER. COUNTRY SPECIFIC EFFECTS AND POSSIBLE COSTS IN CONNECTION WITH INFLATION

2.1. General overview of EU specific country`s macro economy

The education and science system in the European Union is influenced by a wide range of factors, and the economic factor is undoubtedly one of the main ones. Education and science are not simply related to the economy, to a large extent, the state and development of education and science systems both in individual countries and in the European Union as a whole is determined by the state and development of the economy. A certain lag of the EU from the United States and China in economic development is aggravated by several internal problems of the union, such as significant differences in the economic and social development of countries and regions, the growth of Euroscepticism, internal disagreements between member states and their unwillingness to limit the limits of their sovereignty, Brexit, acute issues of migration policy and several others. Therefore, the results of the analysis of the economic and political development of the countries of the European Union seem to be very useful for understanding the trends in the development of science and education in the EU, the factors affecting cooperation with Russia in the scientific, educational and innovation spheres (Lin S. 2017).

In the analytical reports of the European Commission, it is noted that the European economy is doing well, despite several problems. Economic expansion continued in 2017, thus ending four years of moderate, continuous GDP growth. Concerns over heightened uncertainty are giving way to improved economic sentiment, although this has yet to be reflected in a tough economic performance. The latest data show that economic growth continues at a robust pace, supported by macroeconomic policies, robust job growth, strong economic confidence in the economy, a gradual improvement in global trade, and a relatively low euro exchange rate.

In late 2016 and early 2017, global market dynamics accelerated in a relatively well-synchronized manner across advanced economies and emerging markets.

Table 2: GDP

Table 1:
Overview - the spring 2017 forecast

	Real GDP			Inflation			Unemployment rate			Current account			Budget balance		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Belgium	1.2	1.5	1.7	1.8	2.3	1.5	7.8	7.6	7.4	1.2	1.5	1.7	-2.6	-1.9	-2.0
Germany	1.9	1.6	1.9	0.4	1.7	1.4	4.1	4.0	3.9	8.5	8.0	7.6	0.8	0.5	0.3
Estonia	1.6	2.3	2.8	0.8	3.3	2.9	6.8	7.7	8.6	2.0	1.1	1.2	0.3	-0.3	-0.5
Ireland	5.2	4.0	3.6	-0.2	0.6	1.2	7.9	6.4	5.9	4.7	4.8	5.0	-0.6	-0.5	-0.3
Greece	0.0	2.1	2.5	0.0	1.2	1.1	23.6	22.8	21.6	-0.5	-0.5	-0.3	0.7	-1.2	0.6
Spain	3.2	2.8	2.4	-0.3	2.0	1.4	19.6	17.6	15.9	1.9	1.6	1.6	-4.5	-3.2	-2.6
France	1.2	1.4	1.7	0.3	1.4	1.3	10.1	9.9	9.6	-2.3	-2.4	-2.5	-3.4	-3.0	-3.2
Italy	0.9	0.9	1.1	-0.1	1.5	1.3	11.7	11.5	11.3	2.6	1.9	1.7	-2.4	-2.2	-2.3
Cyprus	2.8	2.5	2.3	-1.2	1.2	1.1	13.1	11.7	10.6	-5.7	-5.9	-6.3	0.4	0.2	0.7
Latvia	2.0	3.2	3.5	0.1	2.2	2.0	9.6	9.2	8.7	1.9	-0.9	-2.6	0.0	-0.8	-1.8
Lithuania	2.3	2.9	3.1	0.7	2.8	2.0	7.9	7.6	7.2	-1.1	-2.0	-1.9	0.3	-0.4	-0.2
Luxembourg	4.2	4.3	4.4	0.0	2.4	1.8	6.3	6.1	6.0	4.7	4.5	5.0	1.6	0.2	0.3
Malta	5.0	4.6	4.4	0.9	1.6	1.8	4.7	4.9	4.9	7.9	6.5	9.0	1.0	0.5	0.8
Netherlands	2.2	2.1	1.8	0.1	1.6	1.3	6.0	4.9	4.4	7.9	7.4	7.1	0.4	0.5	0.8
Austria	1.5	1.7	1.7	1.0	1.8	1.6	6.0	5.9	5.9	2.1	2.0	2.2	-1.6	-1.3	-1.0
Portugal	1.4	1.8	1.6	0.6	1.4	1.5	11.2	9.9	9.2	0.5	0.5	0.5	-2.0	-1.8	-1.9
Slovenia	2.5	3.3	3.1	-0.2	1.5	1.8	8.0	7.2	6.3	7.0	6.2	5.8	-1.8	-1.4	-1.2
Slovakia	3.3	3.0	3.6	-0.5	1.4	1.6	9.7	8.6	7.6	0.2	0.1	0.4	-1.7	-1.3	-0.6
Finland	1.4	1.3	1.7	0.4	1.0	1.2	8.8	8.6	8.2	-1.3	-1.8	-1.6	-1.9	-2.2	-1.8
Euro area	**1.8**	**1.7**	**1.8**	**0.2**	**1.6**	**1.3**	**10.0**	**9.4**	**8.9**	**3.4**	**3.0**	**2.9**	**-1.5**	**-1.4**	**-1.3**
Bulgaria	3.4	2.9	2.8	-1.3	1.3	1.5	7.6	7.0	6.4	4.2	2.4	1.8	0.0	-0.4	-0.3
Czech Republic	2.4	2.6	2.7	0.6	2.5	2.0	4.0	3.5	3.5	0.3	0.0	-0.2	0.6	0.3	0.1
Denmark	1.3	1.7	1.8	0.0	1.4	1.7	6.2	5.8	5.7	8.1	7.8	7.7	-0.9	-1.3	-0.9
Croatia	2.9	2.9	2.6	-0.6	1.6	1.5	13.3	11.6	9.7	2.6	2.9	1.3	-0.8	-1.1	-0.9
Hungary	2.0	3.6	3.5	0.4	2.9	3.2	5.1	4.1	3.9	5.0	3.5	2.8	-1.8	-2.3	-2.4
Poland	2.7	3.5	3.2	-0.2	1.8	2.1	6.2	5.2	4.4	0.2	-0.6	-1.2	-2.4	-2.9	-2.9
Romania	4.8	4.3	3.7	-1.1	1.1	3.0	5.9	5.4	5.3	-2.4	-2.8	-2.9	-3.0	-3.5	-3.7
Sweden	3.3	2.6	2.2	1.1	1.4	1.4	6.9	6.6	6.6	4.9	5.2	5.4	0.9	0.4	0.7
United Kingdom	1.8	1.8	1.3	0.7	2.6	2.6	4.8	5.0	5.4	-4.4	-3.9	-3.2	-3.0	-3.0	-2.3
EU	**1.9**	**1.9**	**1.9**	**0.3**	**1.8**	**1.7**	**8.5**	**8.0**	**7.7**	**2.1**	**1.9**	**1.9**	**-1.7**	**-1.6**	**-1.5**
USA	1.6	2.2	2.3	1.3	2.2	2.3	4.9	4.6	4.5	-2.5	-2.8	-3.3	-4.8	-4.7	-5.2
Japan	1.0	1.2	0.6	-0.1	0.4	1.0	3.1	3.1	3.0	3.9	4.1	4.2	-3.7	-4.2	-3.6
China	6.7	6.6	6.3	:	:	:	:	:	:	:	:	:	:	:	:
World	**3.0**	**3.4**	**3.6**	:	:	:	:	:	:	:	:	:	:	:	:

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y

Global growth (excluding the EU) is projected to gradually increase from a seven-year low of 3.2% in 2016 to 3.7% in 2017 and 3.9% in 2018. This improvement should be largely driven by a rebound, albeit still fragile, in emerging markets during this year and next year, supported by gradual increases in commodity prices, an expected return to positive growth in Brazil and Russia, sustained short-term growth in China, and recovery in demand from advanced economies. Growth in advanced economies outside the EU is expected to be slightly above 2% in 2017 and stabilize at that level in 2018. Growth in the United States is projected to remain largely unchanged compared to winter, at around 2¼% over two years. As for the American economy, showing opportunities close to potential and limited only by remaining weakness, the acceleration in growth, anticipated by new promises from the administration to stimulate it with financial resources, is likely to be relatively modest. Many observers have now adjusted downward their initial expectations about the overall size and timing of this stimulus, while the uncertainty surrounding

the administration's economic policies remains high.

Reflecting robust global growth, global trade has also rebounded steadily since the second half of last year. After a slight increase of 0.8% in 2016, global imports of goods and services (excluding the EU) are projected to increase by 3.1% in 2017 and 3.8% in 2018, which is marginally higher than expected in the winter. ... This rebound also reflects the expected rebound in the elasticity of imports, which is underpinned by projected cyclical increases in import-intensive investment in advanced economies and a weakening of various factors that affected trade in 2016. In the past year, government spending on consumption was temporarily increased due to security and the reception of refugees in some member states. They are expected to decline this year and will rise at the same rate next year, in line with the assumption that the policy will not change.

The underlying investment dynamics in the euro area, aside from the highly volatile Irish data, accelerated slightly late last year. As the economy recovers, the underlying drivers of investment are indeed becoming more promising: global demand picks up momentum, capacity utilization is above average, and corporate profitability is rising. Financing conditions are very favorable and policy measures to support investments have been strengthened, for example by the Investment Plan for Europe and tax incentives in several member states.

In this generally good situation, investment growth is not expected to pick up markedly over the forecast horizon as policy uncertainty, modest medium and long-term demand outlook and continued leverage continue to put pressure on investment decisions.

The rise in core inflation is expected to be driven by increased price pressures. But wage growth, which has so far been constrained by a prolonged period of low inflation, weak productivity growth, and a weak labor market, is expected to increase only marginally over the entire forecast horizon.

The public sector deficit to GDP ratio in the euro area and the gross debt to GDP ratio are expected to continue to decline over the forecast horizon, albeit at a slower pace than in previous years. Under the policy persistence assumption, the

deficit-to-GDP ratio is expected to decline to 1.3% in 2018, while the gross debt-to-GDP ratio is projected at 89.0% of GDP. The decline in the deficit-to-GDP ratio is largely driven by lower interest payments, one-off and temporary measures, and lower public sector wage rates. Automatic stabilizers also have a role to play, as continued economic recovery and falling unemployment should cut spending on social transfers, measured as a percentage of GDP. The decline in the debt-to-GDP ratio should be driven by primary surpluses, as well as a more favorable snowball effect driven by modest but sustained real GDP growth, inflation, and declining average interest rates.

Domestic demand could also turn out to be higher than expected if the stronger economic momentum predicted by current high levels of confidence indicators materializes. On the contrary, investment inflows could end and be less than expected if banking sector volatility persists or political uncertainty persists as a result of difficult negotiations on the UK's exit from the EU (IMF 2020).

2.2. Link between Inflation and Economic growth; from EU point of view

Monetary policy divergence between the eurozone and the US widened after the US Federal Reserve raised its policy target range by 25 basis points to 0.75% - 1.00% in March 2017. This was the third rate hike since the US central bank began to gradually normalize its monetary policy in December 2015. The US financial regulator is forecasting two more interest rate hikes of 25 basis points each in 2017 amid further economic expansion and improved labor market conditions. They also expect three more interest rate hikes of 25 basis points in each subsequent year. However, financial markets continued to respond to US monetary policy at a slower pace than expected by the Federal Reserve.

By contrast, the ECB has kept its monetary policy unchanged since the 2017 winter forecast. In line with previous monetary policy announcements, the ECB acquired assets under the asset acquisition program in April 2017 at a slow pace of € 60 billion per month. In March 2017, the ECB also conducted its fourth and final Targeted Long Term Refinancing Operation (TLTRO) of the second series,

announced in March 2016. At the same time, 234 billion euros were allocated for this operation, which exceeded the expectations of many analysts and market participants. This led to a significant increase in the total amount of loans provided to credit institutions in the euro area through refinancing operations, which at the end of March 2017 amounted to about 780 billion euros and can potentially be used to increase bank lending to the real economy. The ECB's Governing Council reaffirmed its expectation that ECB key interest rates will remain at present (18) or lower levels for an extended time, as well as beyond the horizon of net asset purchases, to maintain the very favorable financing conditions that are needed to ensure sustainable convergence inflation with levels below but close to 2% in the medium term.

Monetary policy remained broadly supportive in EU member states outside the eurozone despite growing evidence of higher price pressures.

The Czech National Bank (CNB) decided on 6 April 2017 to discontinue its exchange rate commitments as it considered that the conditions for a sustainable future fulfillment of its 2% inflation target were met. The withdrawal from the exchange rate commitment was seen by the Czech National Bank as the first step towards a gradual relaxation of the expansive nature of monetary policy in the Czech economy. In the UK, the Bank of England's Monetary Policy Committee (MPC) kept its rate at a record low of 0.25%, as well as £ 435 billion in UK government bonds purchased. At the same time, the Bank of England decided that it would continue to buy until £ 10 bn/month in sterling investment-grade non-financial corporate bonds. While the euro has remained broadly unchanged since the beginning of this year in terms of nominal efficiency, the euro has posted more significant gains against other major currencies amid continued uncertainty over the political agenda of the US administration and election results in several Eurozone member states. Thus, the euro-dollar rate since the beginning of the year has been changing within 1.04-1.09 without a clear direction. After fluctuating in the 0.84-0.88 range against the pound since the beginning of the year, the euro has weakened to below 84 pence per euro following the June 8 announcement by Prime Minister

Theresa May of early elections in the UK. The Czech koruna has only moved moderately against the euro following the decision of the Czech central bank to stop complying with exchange rate commitments.

Meanwhile, before early 2017, global financial markets began to behave more cautiously, global financial markets have signaled growing optimism for some time, supported by the prospect of economic stimulus and tax cuts in the United States, upbeat macroeconomic data releases around the world, substantial corporate earnings and cumulative inflation growth. Institutional investor optimism for the global economy has reached its highest level since 2011. However, since March, risk aversion has returned and volatility in equity markets has increased.

On world markets, the growth in bond yields, which had been going on since last autumn, stopped March in March and began to move in the opposite direction, as risk appetite declined and investors began to expect a slower pace of normalization of monetary policy in the United States. The yield on 10-year US Treasuries fell to about 2.30%. The yield on the 10-year German Bunds reached 0.49% in March but has since fallen to about 0.35%. Other eurozone sovereign bond spreads widened slightly amid political risk in some member states (see Fig. 9). Eurozone corporate bond spreads, supported by asset acquisitions by the European Central Bank, remained largely unchanged compared to the German Bunds.

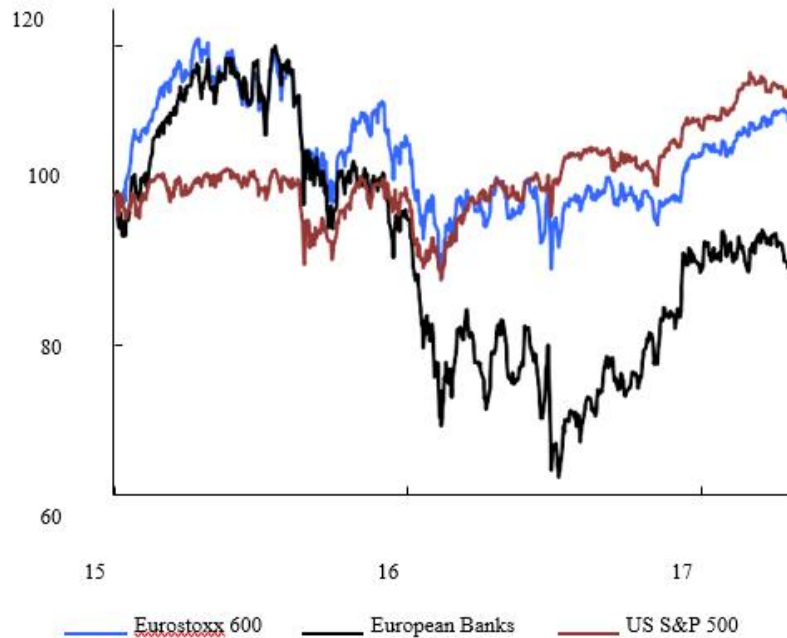**Figure 9: Benchmark 10-year government bond yields, selected Member States**
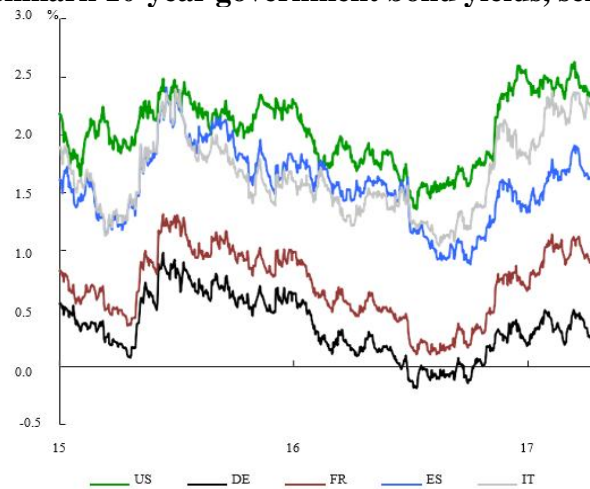
Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&zsAllowed=y

Over the past few months, European stock market indices have continued to strengthen and outperform those of other major advanced economies, supported by economic recovery, bullish sentiment towards European equities and a normalized inflation outlook. Bank stocks, however, were below the overall stock market level (see Fig. 10) on the back of a smoothed yield curve.

Bank lending to households and non-financial corporations in the euro area continued to support the economy as banks cut the rates they charge customers for loans. While lending rates have fallen across the euro area, differences between member states may explain the uneven recovery in lending growth. At the eurozone level, net lending flows to the private non-financial sector have remained positive over the past several months, leading to an annual growth rate of + 2.3% in February 2017. Such nominal growth rates should still be regarded as moderate, as they remain below nominal GDP growth in most countries, which indicates that the ratio of bank credit to GDP is not growing.
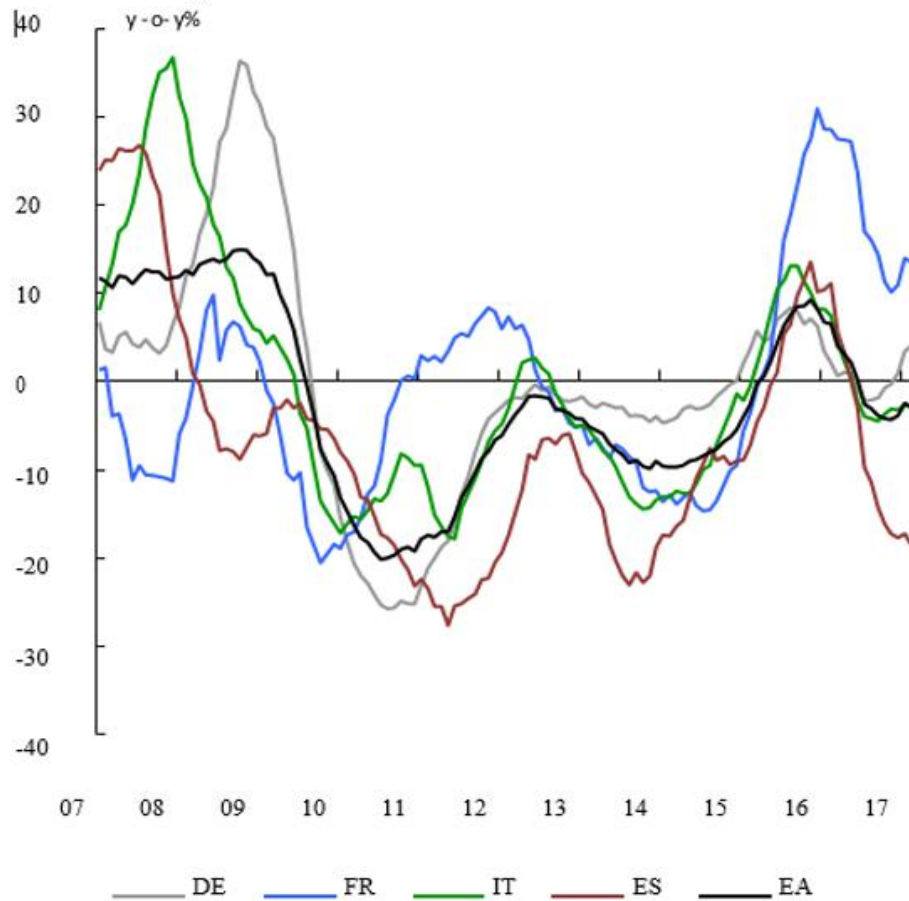
Figure 10: European financial stocks by sector index, Jan 2015 = 100

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y

The decrease in interest rates contributed to an increase in the activity of bank lending, which is confirmed by the growth of business volumes. Businesses and households are using improved pricing terms by taking out new loans or refinancing at lower levels of interest rates. This activity was particularly stimulating a year ago (late 2015 - early 2016) (Figure 11) and took place in most of the eurozone countries. Compared to last year, this activity has decreased slightly as the pace of interest rate declines has slowed, resulting in fewer opportunities for non-financial corporations (NFCs) and households.

Figure 11: Loans to NFCs - business volumes

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y
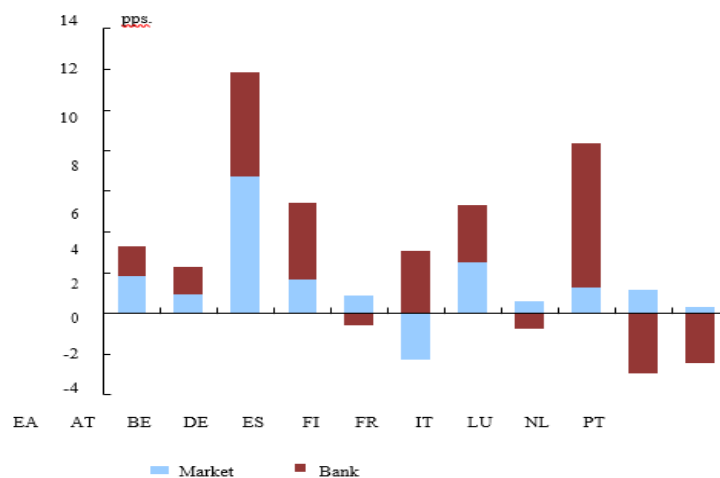
Recent research findings on bank lending confirm these positive trends in bank lending. The latest ECB Bank Lending Survey (BLS) released in April 2017 indicates weakening credit standards and growing demand for all loan categories in the first quarter of 2017. Competitive pressure was the main driver for the weakening

of credit standards, while low general interest rates, favorable housing market prospects, stocks, and working capital levels made an important positive contribution to loan demand. In the second quarter (2017-Q2), the banks included in the BLS survey expect a slight tightening of no-conditions on loans to enterprises and unchanged credit conditions on loans to households.

Lending is expected to expand as lending capacity in the banking sector improves and demand loans increases with the favorable economic cycle. Banks further strengthened their capital positions and reduced the risk of their balance sheets, while the ECB's policy is to continue to support banks with attractive financing terms.

Market finance continued to expand in the euro area. The monthly net issuance of corporate bonds and equities has remained positive over the past several months. Historically, market finance has partially offset the weakness of bank lending in times of crisis, somewhat softening the funding cycle traditionally relied on banks in the euro area. However, since 2015, both bank lending and market finance have been growing and are equally contributing to NFC's overall debt financing. In countries where bank lending conditions are not supportive (Spain, Italy, Portugal, Netherlands), corporations have been turning to markets over the past year (Figure 12).

Figure 12: Decomposition of NFC debt funding growth (y-o-y%) latest 12 availablemonths

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y

It appears that flexible exchange rates for the currencies of the leading industrialized countries are likely to remain a key feature of the system. The introduction of the euro in January 1999 marked the beginning of a new stage in the development of the system. At the same time, the mandate of the European Central Bank clearly provides for the focus of monetary policy on solving the domestic problem of ensuring price stability, and not on the exchange rate.

Exchange rates for the euro, yen and dollar are likely to continue to be volatile, with volatility mitigation programs that are likely to be rejected or impractical because they prevent monetary policy from being consistently directed towards domestic objectives. stabilization.

III CHAPTER. EMPİRİCAL OUTCOMES FOR SOME EU MEMBER STATES

3.1. Determinants of economic growth

The Eurozone economy ended 2016 in a relatively steady state, with GDP growth (quarterly) of 0.5% in 2016-Q4 (0.4% in 2016-Q3), which led to an average GDP growth in 2016 to 1.8 % (2.0% in 2015). As highlighted in previous forecasts, Eurozone aggregates are affected by abnormal data from Ireland, which accounts for about 2.5% of Eurozone GDP. Statistical reclassifications of some of the activities of multinational firms have resulted in relatively large surges in quarterly data, which are also seen in the annual growth rates of Eurozone aggregates. In the euro area, excluding Ireland, real GDP grew by 1.7% in 2016 (1.6% in 2015) and by 0.4% (quarterly) in 2016-Q4, i.e. a slight slowdown in 2016 turns into soft acceleration.
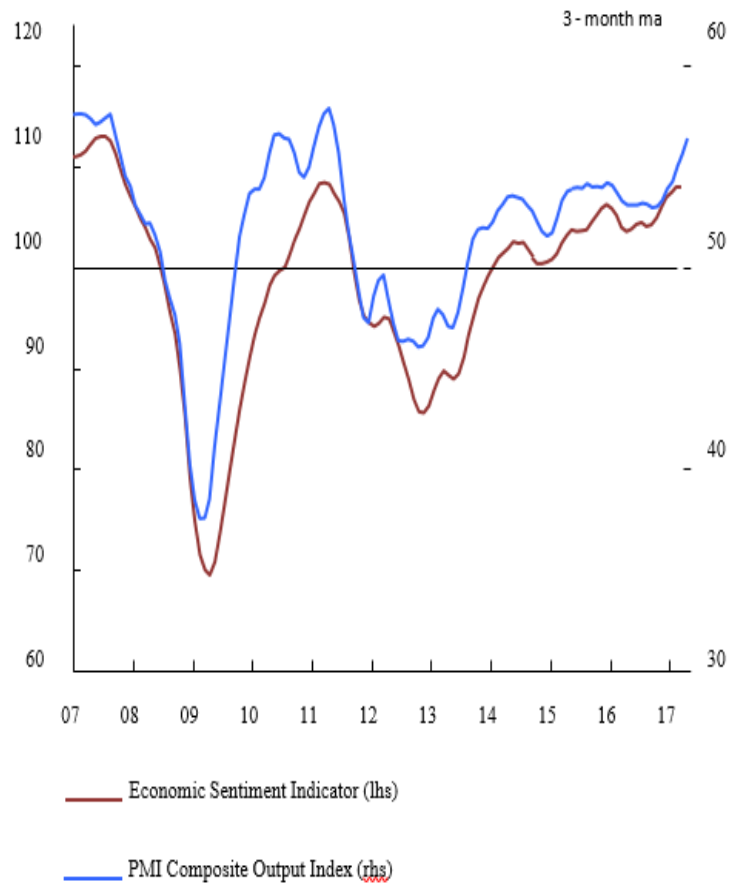
The Eurozone economy appears to have made a good start in 2017 and is likely to grow at the same pace as in the previous quarter. "Soft" data has been relatively strong in recent months, suggesting that households and companies are shaking off the impact of uncertainty. ... Among the sentiment indicators that have seen impressive gains is the European Commission's Economic Sentiment Indicator (ESI), which exceeded its long-term average in the first quarter and its highest level since the beginning of 2011. The optimism of the respondents can be attributed to promising ESI components such as production expectations and order books. The latest Purchasing Managers' Index (PMI) reading also points to Eurozone GDP growth in the first and second quarters of 2017 as it hit six-year highs in the euro area (see Figure 13).

Steady growth rates in 2017 and 2018.

Over the forecast horizon, growth should be fueled by the robustness of European growth drivers, supportive economic policies (very acceptable monetary policy and largely neutral monetary policy), strong confidence in economic agents, gradual improvement in global trade and a relatively low euro exchange rate. Growth constraints are expected to remain in place both in the short term (linked to the

lingering effects of the crisis) and in the medium term (as cyclical weakness also dampens potential growth). Policy uncertainty, while remaining at a high level, appears to have diminished recently after elections were held in some Member States. However, its impact on economic growth should gradually disappear. Real GDP growth in the euro area is expected to remain fairly stable, at 1.7% in 2017 (up from 1.8% in 2016) and 1.8% in 2018. In the EU, real GDP growth is projected to remain stable at 1.9% this year and next. In both the euro area and the EU, economic growth is expected to exceed potential for the fifth consecutive year in 2018, indicating that the output gap in both regions will be fully closed this year.

Figure 13: Economic Sentiment Indicator and PMI Composite Output Index, euro area

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y

Table 3: Composition of growth – EU

(Real annual percentage change)			2011	2012	2013	2014	2015	2016	2017	2018
bn Euro	Curr. prices	% GDP		Real percentage change						
Private consumption	8283.4	56.3	0.1	-0.5	-0.1	1.2	2.1	2.3	1.7	1.6
Public consumption	3020.4	20.5	-0.1	0.0	0.4	1.0	1.4	1.7	1.5	1.3
Gross fixed capital formation	2872.6	19.5	1.9	-2.5	-1.5	2.7	3.6	2.6	2.7	3.2
Change in stocks as % of GDP	28.6	0.2	0.7	0.0	0.1	0.4	0.2	0.2	0.2	0.2
Exports of goods and	6466.2 20671.1	43.9								

				Contribution to change in GDP						
Private consumption			0.0	-0.3	-0.1	0.7	1.2	**1.3**	**1.0**	**0.9**
Public consumption			0.0	0.0	0.1	0.2	0.3	**0.4**	**0.3**	**0.3**
Investment			0.4	-0.5	-0.3	0.5	0.7	**0.5**	**0.5**	**0.6**
Inventories			0.4	-0.7	0.3	0.4	-0.1	**0.0**	**0.0**	**0.0**
Exports			2.5	1.0	0.9	1.9	2.8	**1.4**	**1.8**	**1.9**
Final demand			3.2	-0.5	0.9	3.6	4.8	**3.4**	**3.6**	**3.7**
Imports			-1.6	0.1	-0.7	-2.0	-2.5	**-1.6**	**-1.7**	**-1.8**
Net exports			0.9	1.0	0.2	-0.1	0.2	**-0.3**	**0.1**	**0.0**

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y

Among the larger economies in 2017 and 2018, Spain, the Netherlands, Poland and Sweden are expected to be economic leaders with real GDP growth rates above the EU average, while Germany, Italy and France will grow at average or below average rates. In 2017, all member states, with the exception of Italy (0.9%), are expected to grow by 1.0% or more (Lin S. 2017).

In 2016, economic growth in the Eurozone was almost entirely driven by domestic demand, with private consumption contributing the maximum (1.1 p.p.), followed by investment (0.7 p.p.) and public consumption (0,4 pp), while net exports reduced GDP growth (-0.3 pp). In 2017 and 2018 approximately this model is projected to remain valid for components of domestic demand with the expected minimum contribution from consumption and approximately constant contribution from investment, while the contribution of net exports will be neutral (Figure 14.). Box I.3 provides a model illustration of the main drivers of growth in 2017.

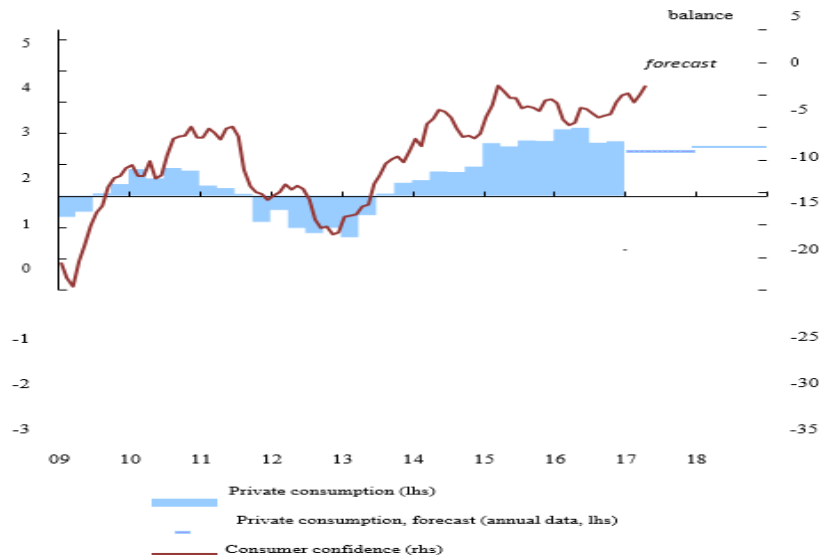**Figure 14: Real GDP growth and its components, euro area**
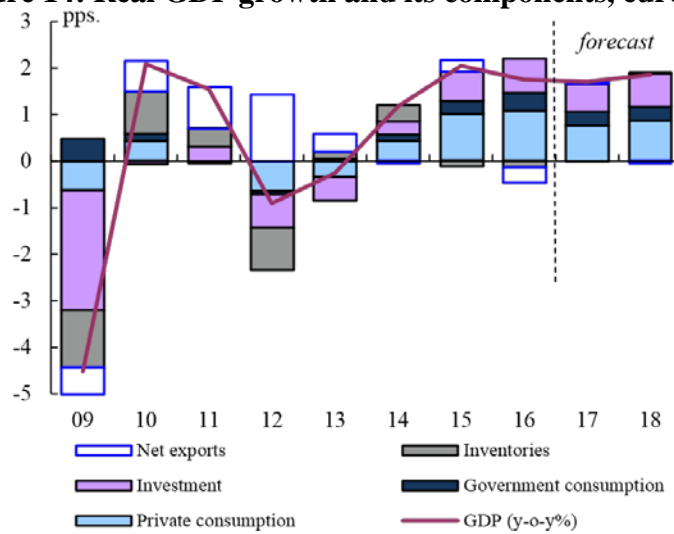
Private consumption has gained some momentum ...

Private consumption is increasing in all directions of economic expansion and accelerated in 2016 in the euro area to 2.0%, the highest growth since 2006. Consumer spending was supported by rising real incomes as employment rose, while windfalls from low oil prices gradually disappeared. In the fourth quarter of 2016, private consumption increased slightly, by 0.5%, both in the euro area and in the EU.

According to recent surveys by the European Commission, the short-term outlook for private consumption looks favorable from the point of view of European consumers. After falling in February, consumer confidence was restored in March and April. In April, compared to March, the consumer confidence indicator rose

noticeably in the euro area (by 1.4 points to 3.6) and to a somewhat lesser extent in the EU (0.8 points to 3.4 points each). This surge follows an increase in the first quarter (from -6.4 in 2016-Q4 to -5.3 in the euro area and from -5.8 to -4.7 in the EU) (see Fig. 15). continued improvement in the labor market situation, lower unemployment fears and optimism about the overall economic situation have increased. In contrast, the European Commission's retail confidence indicator declined slightly in the euro area and the EU in the first quarter compared to the previous quarter.

Figure 15: Private consumption and consumer confidence, euro area
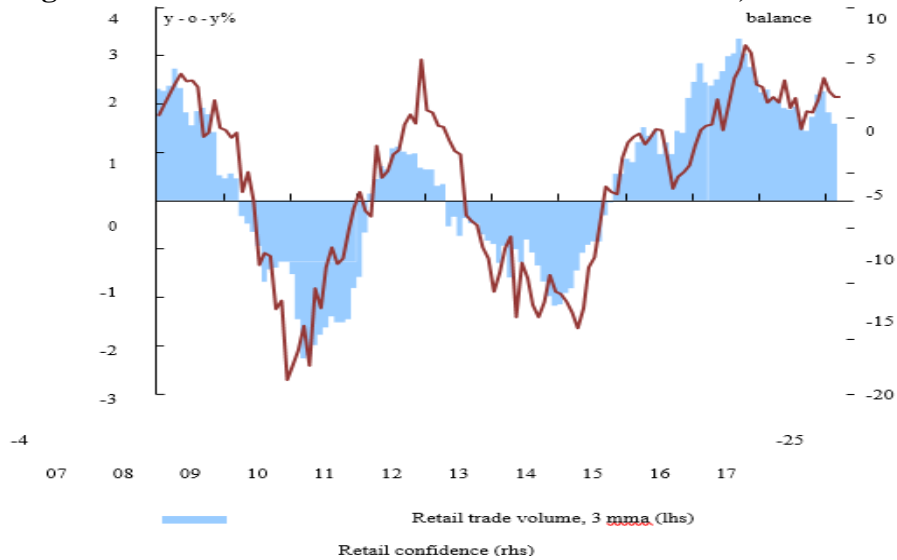

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y

Strong data confirms continued strong growth in private consumption in the short term. Retail sales resumed growth in January and February in the euro area. On average, in January-February 2017, they were only 0.2% higher than in the fourth quarter of 2016 and 1.7% higher than the level of values in the corresponding months of 2016 (see Chart I.19). This means that retail sales have supported their upward trend, which pushed them in February to their highest level in the history of the series. New passenger car registrations in the euro area in the first quarter of 2017 were 3.4% higher than in the previous quarter (3.2% in the EU). Consumer loans to

households in the euro area continued to grow stronger than loans for any other purpose, this figure in the euro area in February showed an annual increase of 4.1%.

Looking ahead, it should be noted that the strength of private consumption depends on the extent to which the negative impact of rising inflation on real disposable income will be offset by profits and further improvements in the labor market. While the still fairly successful multi-job recovery (see Section I.6) increases the number of employees and supports total disposable income and private consumption, a recovery with low wages is less promising in terms of private consumption growth. Real average wage growth is expected to be capped in 2017 and 2018.

Figure 16: Retail trade volumes and retail confidence, euro area

Retail trade volume, 3 mma (lhs)

Retail confidence (rhs)

Source: AB üyesi ülkelerde beşeri sermaye ve ekonomik büyüme ilişkisi: panel veri analiz İhttp://acikerisim.deu.edu.tr:8080/xmlui/bitstream/handle/20.500.12397/11222/226 817.pdf?sequence=1&isAllowed=y

As a result of unsatisfactory wage growth, the expected further increase in annual employee compensation of more than 3% is largely dependent on employment growth. In addition to the positive impact of employment growth, the growth in unearned income is also expected to increase the nominal disposable income of households. However, a rebound in consumer prices in 2017 will reduce real disposable income growth from about 2% in 2015-16 to about 1% in 2017. Despite the projected slight decrease in the household savings rate (from 12.4% in 2016 to 12.2% in 2017), growth in private consumption is expected to decline to

1.5% in 2017 (from 2.0% in the 2016 year). Real disposable income is expected to grow by about 1.7% in 2018, driven by faster employee compensation and lower inflation. This is expected to lead to slightly higher growth in private consumption in 2018 (1.6%).

Public consumption continues to grow steadily

Government spending on consumption was more supportive of economic growth last year than in any other year since the 2008-2009 recession. (0.4 pp in the euro area and the EU in 2016, compared to 0.5 pp in 2008 and 2009). Additional government spending on security measures and the accommodation and integration of asylum seekers continued to contribute to this increase, especially in some member states. In the fourth quarter of 2016, the growth of government consumption increased to 0.5% in the euro area (compared to 0.1% in the third quarter) and 0.3% in the EU (from 0.1%), which leads to increasing the positive contribution to GDP growth.

During 2017, government consumption is expected to grow at a slower 1.5% in both the euro area and the EU. In 2018, public consumption growth is projected to be stable in the euro area but slow to 1.3% in the EU. However, the 2018 outlook is based on a policy revision assumption, whereby consolidation measures are taken into account only if they have been adopted and presented to national parliaments, or if they were sufficiently specific.

In the early years of post-crisis growth, relatively low gross fixed capital (investment) growth was a concern. Investment as a percentage of GDP remained below both slightly distorted pre-crisis levels and long-term averages. As the recovery continued, investment determinants became more favorable and investment support policies were strengthened. For example, financing conditions have become very favorable due to the very supportive monetary policy in Europe, and the growth outlook has improved. But the return to investment growth remained slow, so the recovery continued to look incomplete.

In 2016, investment accounted for 20.1% of GDP in the euro area (19.7% in the EU). This is the largest share since the beginning of the recovery, but it is still

about 2 p.p. below the average for the period 2000-2005. In the fourth quarter of 2016, the share of investment in GDP was 20.6% in the euro area (20.0% in the EU). This reflects modest growth in the euro area, which was recently quantified according to national data (from 3.2% in 2015 to 3.7% in 2016), while industrial and technical products grew quite modestly.

Investment, while remaining highly volatile, increased markedly in the fourth quarter of 2016, up 3.3% in the euro area (up from -0.2% in the third quarter). Higher quarterly growth rates were not recorded in both regions from 1996 to the second quarter, when aggregates were improved by the exceptional performance from Germany (8.0%). However, at the current stage, as in previous quarters, the Eurozone and EU aggregates have been significantly improved by outstanding data from Ireland, where investments increased by 85.7% in the fourth quarter of 2016, and by 45.4% in 2016 (see Section II .7 Ireland). In the euro area, excluding Ireland, investment rose 0.7% in the fourth quarter of 2016 and 2.6% in 2016.

4.2. Data interpretation and analysis

It is estimated using the Generalized Method of Moments (2-step GMM). According to the results of this study, there is a positive long-term relationship between economic integration with the EU and GDP growth rate per capita. In the medium term, a negative relationship has been found, which is predicted to be due to the costs of becoming an EU member.

Henrekson et al. (1997) The growth rate of the European Economic Community and European Free Trade Area (EFTA) member countries is% per annum due to membership.

They showed that it increased between 0.6 and 0.8%. In Maria and Herce (2002), it is stated that EU membership provides an additional increase of 0.2% annually to the growth rates of countries on average.

In another study, Crespo et al. (2002), which investigates the effects of EU membership on the economic growth of member countries, it is concluded that membership increases growth. This study was applied to EU-15 countries between

1960 and 1998, excluding Luxembourg. so take the time interval of this study for 2004 and 1965 as we again adding the last EU member countries and Turkey 10. The econometric model used is as follows:

$[\ln(yT_{t,i}) - \ln(y0_{t,i})]/nt = \beta_1\ln(y0_{t,i}) + \beta_2\ln(INV_{t,i}) + \beta_3ED_{t,i} + \beta_4INF_{t,i} + \beta_5GOV_{t,i} + \beta_6OP_{t,I} + \beta_7YEA_{t,i} + u_{t,i}$

The variables used in the model are as follows (Lin S., and Y. H. (2017):

$\ln(y0_{t,i})$: Natural logarithmic value of the initial per capita GDP of country 'i' in the 't' period

$\ln(INV_{t,i})$: Natural logarithm of investment share in GDP

$ED_{t,i}$: Average education period of the population over 25 years old $INF_{t,i}$: Inflation rate

$GOV_{t,i}$: The ratio of public expenditures to GDP $OP_{t,i}$: The ratio of foreign trade volume to GDP $YEA_{t,i}$: The period of EU membership (years)

It is assumed that the error term in the model consists of country-specific constants and common time constants:

$u_{t,i} = \mu_i + \lambda_t + \varepsilon_{t,i}$

Table 4: Shows the results

MODEL	1	2	3
ln(y0t,i)	-5.204*** (-14.16)	-4.984*** (-17.01)	-4.848*** (-17.05)
ln(INVt,i)	3.443*** (4.61)	1.754** (2.49)	1.746** (2.52)
EDt,i	0.056 (0.43)	0.252 * (1.75)	0.164 (1.00)
INFt,i		-0.094*** (-6.86)	-0.085 *** (-6.13)
GOVt,i		-0.075* (-1.74)	-0.120*** (-2.70)
OPt,i		0.065*** (8.58)	0.062*** (8.22)
YEAt,i			0.504** (2.51)

Source: Fischer S. 2015: p.45

Note: Analysis except Luxembourg for the years 1965-2004 the EU-15 countries include 10 EU member countries and Turkey, the latest. As a result of the heteroscedasticity and autocorrelation tests applied, the hypotheses of fixed variance and absence of sequential dependence were rejected at the level of 5%. For this reason, the generalized least squares method is used.

In almost every study on economic growth in the first model3 in Table-1, the initial GDP of the period taken as the main determinants of growth, the investment share and the average education time of those over the age of 25, representing human capital, were used as dependent variables. Later, this model was developed by adding other variables related to economic growth. As seen in the third model, which is the largest model, the coefficients of all variables have expected signs. Negative coefficient of initial GDP can be interpreted as β-convergence.

Although the investment share and the coefficients of the variables of average education duration are not significant at the level of 10%, it shows that these variables have an increasing effect on growth. As in many empirical studies, the share of public expenditures in GDP and the coefficients of inflation have been found to be negative, and these variables are inversely related to long-term growth. Again, as expected, the positive ratio of trade volume to GDP supports the view that trade has an accelerating effect on growth. Finally, EU membership appears to have a significant positive impact on growth at the 5% level. The point to note here is that the EU membership variable (YEA) reflects the effects of regional integration on growth, free of trade (OP) and pure convergence effects (ln (y0t, i)). Among the possible sources of the impact of EU membership on growth, acceleration of technology transfers with membership, financial assistance of the EU, development of competition and investment environment, increase in labor productivity and improvements in institutional structure can be counted. In conclusion, as can be seen from this study in which the effects of EU membership on the economic growth of member countries are investigated and other studies in the literature, the long-term growth rates of countries increase with membership (Ha M.J., Kose A., Ohnsorge F. 2019).

This term was first used in the study of Barro and Sala-i Martin (1992). It's Customs Union Agreement though has traveled a significant way in terms of economic integration with the EU, considering the benefits to Turkey full EU membership economically it offers significant opportunities, and it is clear that the evaluation of these opportunities (Fischer S. 2015).

4.3. Implementation of international practice on the economic and financial system of Azerbaijan

The Republic of Azerbaijan is a state having a very important geographical position in the Caucasus, between Asia and the European continent. The most important feature of the region is to reach historical trade and passageways. Azerbaijan, which has the largest area among the three Caucasian republics, is approximately the size of Portugal or Portugal. The total length of borders of Azerbaijan, which has a total area of 86,600 km2, is 3600 km. North Georgia (322 km) and the Russian Federation due to the Dagestan Autonomous Republic (284 km), military Islamic Republic of Iran (472 km dry and 179 km water border) with you, Armenia (566 km), and the Nakhchivan Autonomous Republic by the Republic of Turkey (11 km) There is a common border. Azerbaijan's message is located in the Caspian Sea (810 km). 11.5% of the Azerbaijani land is forest, 1.6% is water basin, 50% is arable land, 36.9% is another lands (Lin S. and Y.H. 2017).

Azerbaijan is a country with 9 of 11 climate types. Azerbaijan is a country rich in underground resources. Its main sources are lead, zinc, copper, iron ores, barite alunite, cobalt, arsenic, marble, limestone, cyanide, mineral salt, and rock salt. There are precious metals such as gold and silver which are scarce. The country's greatest underground wealth is oil. Oil and natural gas are available at sea and on land.

International organizations to which Azerbaijan is a member: The Republic of Azerbaijan is a country that has turned its direction to the West after gaining its independence. Azerbaijan joined the United Nations (UN) in 1992. Azerbaijan also (International Monetary Fond) IMF, World Bank, Organization for Security and Cooperation in Europe (OSCE), Council of Europe (EC), Organization of Islamic Conference (OIC), International Bank of Reconstruction and Development (IBRD), Europian Bank of Reconstruction and Development (EBRD), the Economic Cooperation Organization (ECO) and the Partnership for Peace Program of the North Atlantic Treaty Organization (NATO). Again, Azerbaijan is a member of GUAM, which constitutes the economically regionally formed Commonwealth of Independent States (CIS), the Black Sea Economic Cooperation Organization

(BSEC), the Economic Cooperation Organization (ECO), Georgia, Ukraine, Azerbaijan, and Moldova. Azerbaijan has made free trade agreements with Russia, Ukraine, Georgia, Moldova, and Kazakhstan, and within the framework of the agreement, no customs duty is collected from the products coming from these countries (excluding the products specified in the agreement).

Table 5: Total Population by Years

Years	Total Population (Thousand people)			Total Population (Thousand people)	
		City	Rural	City	Rural
1996	7726,2	4034,5	3691,7	52,2	47,8
1997	7799,8	4057,8	3742	52	48
1998	7876,7	4082,5	3794,2	51,8	48,2
1999	7953,4	4064,3	3889,1	51,1	48,9
2000	8016,2	4086,4	3929,8	51	49
2001	8081,0	4107,5	3973,5	50,8	49,2
2002	8141,4	4130,1	4011,3	50,7	49,3
2003	8202,5	4154,3	4048,2	50,7	49,3
2004	8265,7	4254,3	4011,4	51,5	48,5
2005	8347,3	4298,3	4049,0	51,5	48,5
2006	8436,4	4356,6	4079,8	51,6	48,4

Source: http://www.azstat. org/publications/azfigures/2007/az/004.shtml, State Statistics Committee of the Republic of Azerbaijan, 26 February 2021.

The Law on Investment Activities, which was accepted and implemented in 1995, was finally accepted again in the Azerbaijan National Assembly with some amendments on April 19, 2005. This law covers the promotion of foreign capital to the country's economy, the development of international economic relations and cooperation, and the assurance of all foreign investments.

Oil is the biggest national wealth of Azerbaijan. President Heydar Aliyev determined a new oil strategy in the post-independence period and signed the "Contract of the Century" with the leading countries of the world in 1994 for the operation of "Azeri", "Guneshli" and "Chirag" deposits. Until today, 20 agreements with 33 foreign companies from 15 countries have been made by the State Oil Company representing Azerbaijan in the world oil sector. According to these agreements, the investments to be made in the oil sector of Azerbaijan are around 50-60 billion USD.

Direct foreign capital entering Azerbaijan from 1997 to 2001 was 1.067 billion

in 1997, 1.085 billion in 1998, 503 in 1999, respectively. million was 129.9 million USD in 2000 and 226.5 million USD in 200183. Here, the reason for the decrease after 1998 was the Russian Crisis and the economic contractions experienced in the region afterwards. In addition, the shrinkage in the world economy in 2000 and after, and the 50% decrease in the share of foreign direct capital in all developing countries were also effective in this decline.

Foreign companies invested approximately 5.2 billion US Dollars of capital in the Azerbaijani economy in 1994-2000. Of these investments 77.2% is direct investments and 22.8% is financial loans. 73% of direct investments were directed to the petroleum industry. Of the 5.2 billion US dollars of foreign capital invested in the Azerbaijani economy between 1994 and 2000, 3.4 billion US dollars of oil and 1.8 billion US dollars belong to non-oil sectors.

The distribution of the total foreign capital in Azerbaijan by investor countries is largely parallel to the share structure of the oil consortium Azerbaijan International Operating Company (AIOC). British firms have a 34% share in AIOC. UK USA with 25%, Japan with 14%, followed by Turkey and Norway 9% and 7%. Foreign investments are concentrated around the city of Baku, where activities in the energy sector take place. The region receiving the most foreign investment is Sumgait, which has an oil refinery and petrochemical industry.

It is worrying that investments in Azerbaijan are mostly made in the energy sector, especially in the oil sector, and a significant part of the GDP is composed of oil revenues. Regional and sectoral imbalances are very clear in the country. One of the reasons for these imbalances is that the vast majority of investments are made in only one sector, and they face a danger that is referred to as "Dutch disease (syndrome)" in economic terms. As most of the investments are made in the oil sector, these investments are made only in this region since oil is only extracted in and around the capital Baku. This causes the emergence of regional imbalance.

Also, the investment climate in the country is not transparent, the tax rates are high, the factors that are against the free market economy, the monopolies keep the

markets, the necessary legal regulations are insufficient or the laws are not implemented, the level of bribery and corruption is very high.

The existence of factors that prevent the increase of investments prevents the increase of investments. Table 4 shows the total investment amounts made in Azerbaijan between 2000-2006, and the value of foreign and domestic investments in USD. According to the table, from 2000 to 2006, the total investment amount has increased approximately 6 times. Foreign investments increased by approximately 5.4 times and domestic investments increased 6 times. The amount of increase in domestic investments realized more in the years after 2002, and the amount of foreign investment increased until 2004. However, there was a slight decrease in foreign investments in 2005 compared to 2004. In 2006, the amount of foreign investment increased again.

Table 6: Investment Amounts Made by Years

	2000	2001	2002	2003	2004	2005	2006
Total Investments							
Mln, USD	1441.4	1561.8	2796.6	4326.4	5922.7	6669.6	8137.8
Foreign Investments							
Mln,USD	927	1091.8	2234.9	3371	4575.5	4444.3	5052.8
Internal Investments							
Mln,USD	514.4	470	561.7	955.4	1347.2	2225.3	3085

Source: http://www.azstat.org/publications/azfigures, State Statistics Committee of the Republic of Azerbaijan, 22 February 2021.

Table 5 includes the types of foreign investments and their shares by country. As can be seen from the table, foreign investments are divided into three shares: investments of joint and foreign capital companies, financial loans, and investments in the oil industry. When we look at the data in the table, it is seen that most of the foreign investments were made in the oil industry. Namely, if we take into account the data of recent years, approximately 67.7% of the total foreign investment in 2006 and 77.7% in 2005 was made in the petroleum industry.

Table 7: Foreign Investments (Million USD)

	2000	2001	2002	2003	2004	2005	2006
Total Foreign Investments	927	1091.8	2234.9	3371	4575.5	4893.2	5052.8
Shares:							
Finance Loans	262.9	192	223	238.3	293	698.4	983.5
Investments in the Oil Industry	546.1	820.5	1693	2972.4	4088.1	3799.9	3422.3
Joint and Foreign Capital Companies Investments (Total)	118	79.3	318.9	45.4	104.2	230.5	368.4
Shares:							
Turkey	31.6	11.8	55.6	17.1	80.1	96.2	136.6
USA	11.2	16.9	41.4	4.9	8.4	24.8	70
Iranian	2.9	-	2.7	-	-	1.2	17.5
Germany	1.7	1.2	1.7	-	2.1	21.5	7.4
Russia	-	1.4	0.7	1.2	1.8	5.1	4.6
Great Britain	6.8	15.1	108.1	9	4.2	39.5	39.1
United Arab Emirates	2.8	0.7	0.2	4.4	4.4	5.7	18.3
Switzerland	-	8.3	-	-	-	0.5	2.7
France	39.3	7.6	25.7	2.2	2.2	2.6	11.1
Cypress	-	-	-	-	-	0.2	5.4
China	-	-	-	-	-	0.2	1.3
Italy	-	-	-	-	-	4.6	2.8
Pakistan	-	-	-	-	-	-	3.1
Norway	-	-	31.6	-	-	-	-
Japan	16.4	4	23.7	-	-	-	-
Other countries	5.3	12.3	27.5	6.6	1	28.4	38.5
Revenues from changes in oil prices	-	-	-	58.6	21.6	1	17
Portfolio Investments	-	-	-	-	19	78	57.8
Other Investments				56.3	49.6	85.4	203.8

Source: http://www.azstat.org/publications/azfigures, State Statistics Committee of the Republic of Azerbaijan, 23 February 2021.

In 2004, approximately 89% of the foreign investment was made in the petroleum industry. Financial loans are the second most important item in foreign investments. Investments of joint and foreign capital companies have the least share in total foreign investments.

When we look at the share of foreign investments by countries, which have a significant share in Turkey. Turkey ranks first according to the number of foreign investments in Azerbaijan starting from 2003. According to the data of 2006, after

Turkey, the US, Great Britain, United Arab Emirates, and Iran, foreign investment has been made in the countries with the highest proportion. Investments made by the USA, Great Britain, and the United Arab Emirates are generally investments made in the oil industry. Azerbaijan is Turkey's investment in other sectors with the oil industry is also important.

According to the researches of the UK's "MAI Consulting" firm operating in Baku, the total investments to be made for the production of energy resources in Azerbaijan by 2030 will reach USD 135 billion.

There are also problems arising from foreign capital in the country and still continue. The problems arising from foreign capital for the country are as follows (Gerlach S., Giovannini A., Tille C., Vinals J. 2008):

• Increasing foreign debt of the country,

• The activities of foreign ceramics and joint enterprises are directed towards raw materials and service areas that generate more early income,

• Very little foreign capital investment in the production industry areas of the country,

• Almost all of the investments are concentrated in the Absheron region, so there is almost no foreign capital in other regions,

• Although the loans received from international financial institutions and the recommendations given by financial institutions play a major role in ensuring macroeconomic stability in the country, it does not provide a noticeable change in the solution of socio-economic problems such as increasing the production level and productivity in the real sector and increasing the social security of the public.

Significant foreign investments in Azerbaijan (Fischer S. 2015);

In the energy sector, BP, Unocal, ExxonMobil, Devon (Pennzoil), Turkey Petroleum Corporation (TPAO), Statoil, Lukoil, Itochu, and Agip and Chevron.

CONCLUSIONS AND RECOMMENDATIONS

Economic growth is the increase in the amount of goods and services produced in a country over time. It is also the only way to continuously increase the living standards of individuals. Therefore, one of the main macroeconomic goals of all countries is to achieve a rapid economic growth. Human and physical capital accumulation and technological development are sources of economic growth. These three sources must work together in order for growth to occur. These resources work together; It has an increasing impact on growth within the framework of the relationship between productivity growth and technological development. Physical investments alone are not enough for a country's economy to grow. One of the most important reasons to be successful in the economic growth process is to have human resources with the quality of education required for the job to be done. In other words, the long-term success of a country's economy is limited and proportional to the qualifications of its manpower resources. No matter how large the physical capital (machinery-equipment), financial and natural resources are, it is not possible for the country's economy to achieve a permanent success in the long run without qualified manpower (human capital). Economic growth should not be understood as a simple increase in production seen in the short term. In the years following a period of depression or recession, increases in production arising from the decrease in unemployment and higher rates of use of existing production capacity are not considered as "economic growth". Because in this case, there will be an increase in production arising from the fact that the existing production factors are left less idle, and this increase will stop when the working phase with full capacity is reached. Therefore, it is necessary to evaluate economic growth as an increase in production capacity, not as an increase in actual production. Overcoming the problem of growth and underdevelopment, which arise as a result of the differences in economic and non-economic factors between countries, depends on the quantitative and qualitative status of the physical and human capital resources in the economies in question. In particular, the human capital factor, which has an important role in the utilization of physical resources and their transfer to the economic process. It has a very important

place in realizing economic growth. Human capital has an important place among the determinants of economic growth. Generally, experience, work experience and education are the three main elements for human capital, and education comes first among them.

Panel data analysis technique was used as an econometric analysis method in the study. As a result of the analysis made for the 1990-2005 data of the EU member countries, it has been concluded that the increases in the country's economies' opening up and investment rates positively affect the economic growth. In line with the literature, it has been observed that the increases in the inflation rate have a negative effect on economic growth. According to the results of the model established with variables accepted as human capital elements; Increases in the number of computers per capita, HDI and average years of education positively affect economic growth. It is not a coincidence that the EU member countries with high per capita GDP values are classified as "Countries with High Human Development Level" in the Human Development Index classification, but it is the result of investments made in the human capital factor.

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ADDITIONS

Table 1: Inflation rates based on the consumer price index in some countries, % per year.

Countries	2010	2011	2012
USA	1,5	3,0	1,7
European Union (27 countries)	2,7	3,0	2,3
Eurozone (17 countries)	2,2	2,7	2,2
Germany	1,9	2,3	2,0
France	2,0	2,7	1,5
Italy	2,1	3,7	2,6
Spain	2,9	2,4	3,0
Netherlands	1,8	2,5	3,4
Belgium	3,4	3,2	2,1
Finland	2,8	2,6	3,5
Slovakia	1,3	4,6	3,4
United Kingdom	3,7	4,2	2,7
Sweden	2,3	2,3	-0,1
Poland	3,1	4,6	2,4
Czech Republic	2,3	2,4	2,4
Hungary	4,7	4,1	5,0
Latvia	2,5	4,0	1,6
Lithuania	3,8	3,4	2,8
Bulgaria	4,5	2,8	4,2
Switzerland	0,5	-0,7	-0,4
Turkey	6,4	10,4	6,2

Belarus	9,9	8,7	21,8
Ukraine	9,1	4,6	-0,2
Kazakhstan	7,8	7,4	6,0
Japan	0,0	-0,2	-0,1
China	4,6	4,1	2,5
The Republic of Korea	3,0	4,2	1,4
India	9,5	6,5	11,2
Brazil	5,9	6,5	5,8

Source: https://www.bis.org/publ/confp06a.pdf

List of Table

List of Figure